GEOLOGY AND RESOURCE POTENTIAL OF THE GALORE CREEK PROPERTY

Liard Mining Division
British Columbia, Canada

NTS map sheets 104G/03 and 104G/4
57° 07' N latitude
131° 27' West Longitude

Owned by
NovaGold Canada Inc.
Suite 2300, 200 Granville Street
Vancouver, B.C. V6C 1S4

Operated by
NovaGold Canada Inc.
NovaGold Resources Inc.
Suite 2300, 200 Granville Street
Vancouver, B.C. V6C 1S4

Prepared by

Hatch
GRTechnical Services Ltd.
Giroux Consultants Limited

18 May 2005

Table of Contents

1.1 List of Figures

1.1.1 List of Tables

1.2 Appendices

1. SUMMARY

GR Technical Services Ltd. (GR Tech), Giroux Consultants Limited (Giroux) and Hatch were retained by NovaGold Canada Inc. (NovaGold) to complete a mineral resource estimate for the Galore Creek project, including the Central, Southwest, Junction, and West Fork Zones and complete a Technical Report summarizing the findings to meet the requirements of National Instrument 43-101 (the Instrument) and Form 43-101F1. The mineral resource study was a collaborative effort by NovaGold, GR Tech, and Giroux, with Mr. Robert J. Morris of GR Tech and Mr. Gary H. Giroux acting as independent Qualified Persons as defined by the Instrument. Mr. Morris conducted a site examination of the project area during the week of October 10, 2004.

Galore Creek is located in northwestern British Columbia west of the Cassiar Highway and 150 kilometers northwest of the tidewater shipping port of Stewart, B.C. Current access to the property is by helicopter.

The Galore Creek property is held by Stikine Copper Limited. In August 2003, SpectrumGold Inc. (now NovaGold Canada Inc.) entered into an option agreement to acquire Stikine Copper Limited from its shareholders QIT-Fer et Titane Inc. and Hudson Bay Mining and Smelting Co. Limited. The property covers approximately 30,000 hectares and comprises 292 two-post claims, of which 39 are fractions, held in the name of Stikine Copper. NovaGold has also acquired additional ground through staking.

Hudson Bay Exploration and Development Company Limited staked the Galore Creek claims in 1955. The first drilling was conducted in 1956 and during the period 1960 to 1968, 235 holes totaling 53,164 meters were completed. Exploration also included 807 meters of tunneling in two adits. In 1972, Hudson Bay Smelting became operator and in 1972 and 1973 an additional 25,352 meters of diamond drilling was completed in 111 holes. This work focused exclusively on blocking out resources in the Central and North Junction zones. A further 5,310 meters of diamond drilling was completed in 24 holes in 1976. In 1989, Mingold Resources Inc. (an affiliated company of Hudson Bay's) operated the property in order to investigate its gold potential. A further 1,225 meters of diamond drilling in 18 holes were completed by Mingold in 1990. Kennecott resumed operatorship of the project in 1991 and drilled an additional 18,380 meters in 49 holes. An airborne geophysical survey and over 90 line kilometers of induced polarization (IP) were also completed.

For the purposes of this report, "Galore Creek" is defined as four mineralized zones, the Central, Southwest, Junction, and West Fork deposits. Figure 1.1 shows the locations of the four resource zones in the Galore Creek Valley. In 2003 NovaGold drilled 2,950 meters in 10 holes in the Central and Southwest zones. In 2004, NovaGold drilled a further 79 holes totaling 25,976 meters of which 65 were in or near the four resource areas. Fourteen holes were drilled on the adjacent Copper Canyon and Grace properties. Additional work in 2004 included 1,072 line kilometers of helicopter magnetic and radiometric surveys, 28 line kilometers of IP/Resistivity survey data, and 10.5 kilometers of seismic refraction survey data.

The mineral resource estimate for the four Galore Creek zones incorporates the 2004 drill results and has benefited from a revised geological interpretation. The model integrates 109,962 meters of drilling in 463 core holes with a total of 37,913 assays. The estimates are based on a 3-dimensional computer block model with grades interpolated into individual 25m by 25m by 15m high blocks. The grade interpolation used ordinary kriging procedures and mineralization was composited on 5m intervals with high-grade samples capped based on lognormal probability plots. Table 1.1 summarizes the estimate for measured and indicated resources, while Table 1.2 summarizes the inferred resources. Included in Table 1.2 are inferred resources at the adjacent Copper Canyon Prospect released earlier in 2004 by NovaGold.

Galore Creek, an alkaline porphyry-style copper-gold-silver deposit, has at a cut-off grade of 0.35% copper equivalent, a combined measured and indicated resource of 516.7 million tonnes grading 0.60% copper, 0.36g/t gold, and 4.5g/t silver (Hatch, 2005).

FIGURE 1.1 Galore Creek Valley Main Deposits

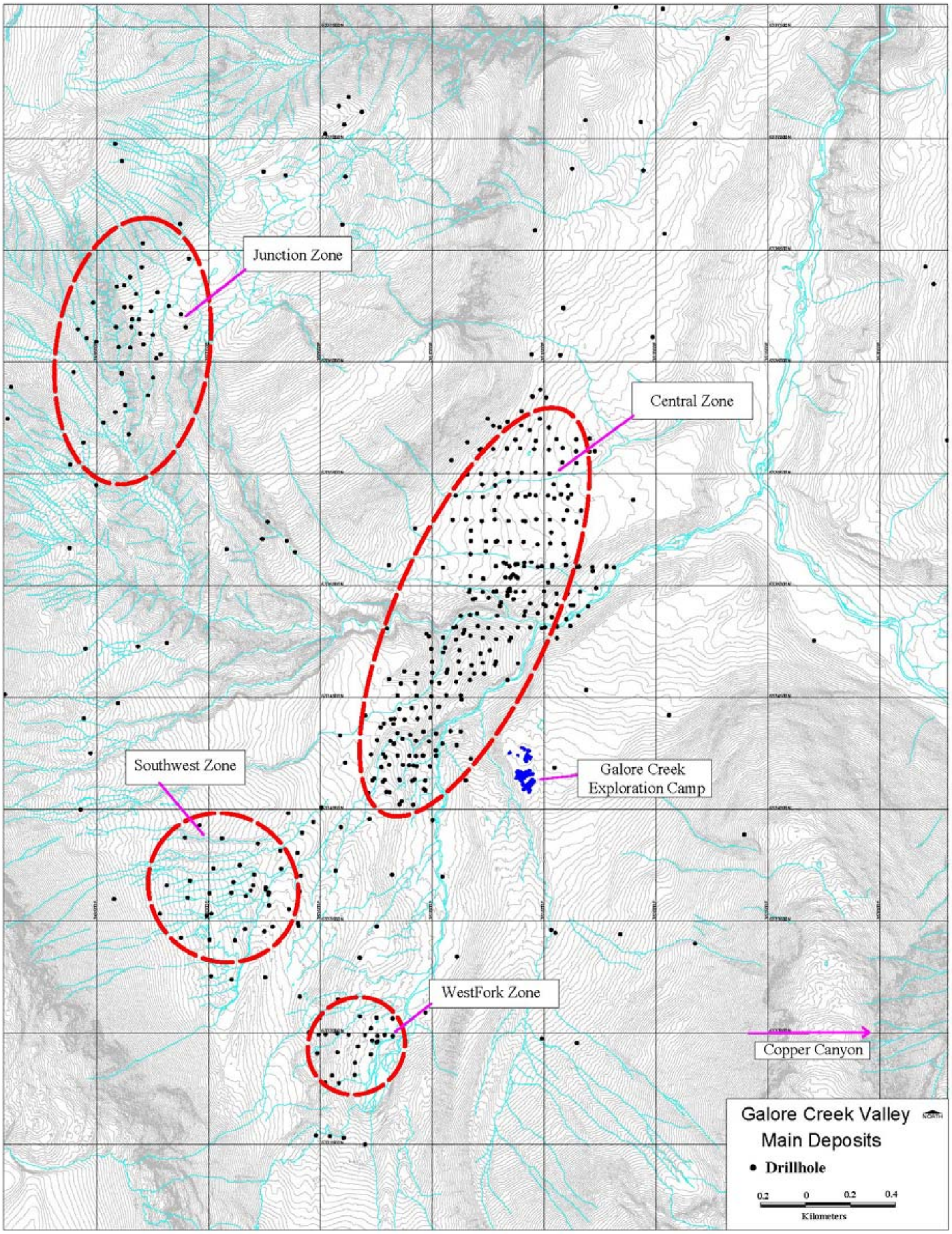


Table 1.1
GALORE CREEK PROJECT SUMMARY FOR MEASURED PLUS INDICATED RESOURCE

ZONE	Cutoff (CuEq%)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Billion lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
			Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
Central	0.35	423,900,000	0.614	0.302	4.681	0.780	5.74	4.12	63.8
Southwest	0.35	47,700,000	0.447	0.818	3.041	0.972	4.70	1.25	4.7
Junction	0.35	30,000,000	0.589	0.412	4.777	0.837	0.39	0.40	4.6
West Fork	0.35	15,100,000	0.580	0.379	4.793	0.798	0.19	0.18	2.3
		516,700,000	**0.596**	**0.358**	**4.538**	**0.802**	**6.79**	**5.95**	**75.4**
Central	0.50	290,100,000	0.738	0.376	5.421	0.947	4.72	3.51	50.6
Southwest	0.50	34,100,000	0.553	1.005	3.523	1.194	0.42	1.10	3.9
Junction	0.50	18,300,000	0.794	0.513	6.344	1.110	0.32	0.30	3.7
West Fork	0.50	10,800,000	0.694	0.438	5.675	0.949	0.16	0.15	2.0
		353,300,000	**0.722**	**0.446**	**5.293**	**0.979**	**5.62**	**5.06**	**60.2**
Central	1.00	90,100,000	1.100	0.724	7.257	1.511	2.18	2.10	21.0
Southwest	1.00	16,100,000	0.843	1.477	4.787	1.738	0.30	0.76	2.5
Junction	1.00	7,100,000	1.347	0.713	10.617	1.795	0.21	0.16	2.4
West Fork	1.00	3,300,000	1.118	0.631	9.930	1.514	0.08	0.07	1.0
		116,600,000	**1.080**	**0.825**	**7.196**	**1.560**	**2.78**	**3.10**	**27.0**

Table 1.2
GALORE CREEK PROJECT SUMMARY FOR INFERRED RESOURCE

ZONE	Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	Billion lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
Central	0.35	173,600,000	0.467	0.283	3.425	0.623	1.79	1.58	19.1
Southwest	0.35	122,900,000	0.314	0.556	2.274	0.695	0.85	2.20	9.0
Junction	0.35	71,600,000	0.532	0.286	3.334	0.685	0.84	0.66	7.7
West Fork	0.35	45,400,000	0.466	0.339	4.986	0.665	0.47	0.50	7.3
Copper Canyon	0.35	164,800,000	0.351	0.539	7.154	0.735	1.28	2.86	37.9
TOTAL		**578,300,000**	**0.409**	**0.419**	**4.354**	**0.681**	**5.22**	**7.79**	**81.0**
Central	0.50	96,000,000	0.576	0.380	4.085	0.790	1.22	1.17	12.6
Southwest	0.50	72,100,000	0.407	0.706	2.617	0.895	0.65	1.64	6.1
Junction	0.50	34,600,000	0.759	0.381	4.559	0.977	0.58	0.42	5.1
West Fork	0.50	29,700,000	0.553	0.403	6.181	0.797	0.36	0.39	5.9
Copper Canyon	0.50	116,100,000	0.408	0.641	8.300	0.870	1.04	2.39	31.0
TOTAL		**348,500,000**	**0.501**	**0.536**	**5.411**	**0.858**	**3.85**	**6.01**	**60.7**
Central	1.00	18,200,000	0.781	0.929	5.193	1.312	0.31	0.54	3.0
Southwest	1.00	18,400,000	0.714	1.092	3.245	1.445	0.29	0.65	1.9
Junction	1.00	10,500,000	1.334	0.588	7.533	1.686	0.31	0.20	2.5
West Fork	1.00	4,900,000	0.841	0.603	9.948	1.219	0.09	0.10	1.6
Copper Canyon	1.00	29,200,000	0.651	1.136	13.030	1.446	0.42	1.07	12.2
TOTAL		**81,200,000**	**0.794**	**0.977**	**8.159**	**1.433**	**1.42**	**2.56**	**21.2**

The copper equivalent (CuEq%) calculations use metal prices of US$375/oz for gold, US$5.50/oz for silver and US$0.90/lb for copper. Copper equivalent calculations reflect gross metal content that have been adjusted for metallurgical recoveries based on the following criteria: copper recovery = (%Cu - 0.06)/%Cu with a minimum of 50% and maximum of 95%; gold recovery = (Au g/t – 0.14)/Au g/t with a minimum of 30% and maximum of 80%; and silver recovery = 80%.

It is concluded that the Galore Creek property hosts significant resources of copper, gold, and silver. It is recommended that additional drilling be conducted on the property to further define and expand the known resource, particularly near surface potential.

2. INTRODUCTION AND TERMS OF REFERENCE

In 2004, NovaGold Canada Inc. retained Hatch to assist with the mineral resource modeling and mining engineering aspects of a preliminary study of the Galore Creek property, and to prepare a Technical Report compliant with NI 43-101 (the Instrument) and Form 43-101F1.

This report summarizes results from work completed to date on the Galore Creek property located approximately 150 kilometers northwest of the town of Stewart, British Columbia (Figure 6.1). Exploration on the properties includes geological mapping, geochemical surveys, diamond drilling, helicopter magnetic and radiometric surveys, IP surveys, and seismic refraction surveys. Based on this report, Galore Creek, an alkaline porphyry-style copper-gold-silver deposit, hosts a combined measured and indicated resource at a cut-off grade of 0.35% copper equivalent, of 516.7 million tonnes grading 0.60% copper, 0.36g/t gold, and 4.5g/t silver (Hatch, 2005).

The Galore Creek property is held by Stikine Copper Limited. In August 2003, SpectrumGold Inc. (now NovaGold Canada Inc.) entered into an option agreement to acquire Stikine Copper Limited from its shareholders QIT-Fer et Titane Inc. and Hudson Bay Mining and Smelting Co. Limited. The property covers approximately 30,000 hectares and comprises 292 two-post claims, of which 39 are fractions, held in the name of Stikine Copper. NovaGold has also acquired additional ground through staking.

Mr. Robert J. Morris of GR Technical Services Ltd. conducted a site visit and detailed examination of the property on October 9 through to October 15, 2004. During the site visit, sufficient opportunity was available to examine logging procedures and drill core from the 2004 program as well as conduct a general overview of the property, including selected drill sites and historic core, and the condition of existing project infrastructure. Based on his experience, qualifications and review of the site and resulting data, the author, Mr. Morris, is of the opinion that the programs have been conducted in a professional manner and the quality of data and information produced from the efforts meet or exceed acceptable industry standards. Mr. Morris also believes that the work has been directed or supervised by individuals who would fit the definition of a Qualified Person in their particular areas of responsibility as set out by the Instrument.

Mr. Gary Giroux of Giroux Consultants Limited completed the resource estimate. While actively involved in the preparation of the resource estimate, Mr. Giroux, Hatch and GR Technical Services Ltd. had no direct involvement or responsibility in the collection of the data and information or any role in the execution or direction of the work programs conducted for the project on the property or elsewhere. The resource estimate is based on the most recent interpretations by project staff coupled with other data and reports provided by NovaGold. Much of the data, including the drill hole assay and geological database, upon which the estimate is based, has undergone thorough scrutiny by project staff as well as certain data verification procedures by the author.

This report documents the 2004 diamond drilling and geophysics programs, subsequent results, and recommendations for further work. Drilling completed during 2004 consisted of 79 holes totaling 25,976 meters. Drilling began June 25, 2004 and ended November 7, 2004. Geophysics completed during 2004 consisted of 1072 line kilometers of helicopter magnetic and radiometric surveys, 28 line kilometers of IP/Resistivity survey data, and 10.5 kilometers of seismic refraction survey data.

3. DISCLAIMER

This report was prepared for NovaGold Canada Inc. (NovaGold) by Hatch, GR Technical Services Ltd. (GR Tech) and Giroux Consultants Ltd. The quality of information, conclusions and estimates contained herein are based on industry standards for engineering and evaluation of a mineral project. The report is based on: i) information available at the time of preparation, ii) data supplied by outside sources, iii) engineering, evaluation, and costing by other technical specialists and iv) the assumptions, conditions and qualifications set forth in this report.

This report is intended for use by NovaGold, subject to the terms and conditions of its contract with GR Tech. GR Tech disclaims any liability to any third party in respect of any reliance upon this document without GR Tech's written consent.

4. PROPERTY DESCRIPTION AND LOCATION

The Galore Creek property (Figure 6.1) is located within the historic Stikine Gold Belt of northwestern British Columbia, approximately 75 kilometers northwest of Barrick Gold's Eskay Creek mine. The 30,000 hectare property lies 70 kilometers west of the Bob Quinn airstrip, 150 km northwest of the tidewater port of Stewart, British Columbia, and 90 km northeast of Wrangell, Alaska. The property is situated at the headwaters of Galore Creek, a tributary of the Scud River, which in turn flows into the Stikine River. The property is located within the Liard Mining Division at latitude 57°07'30''N and longitude 131°27'W, on NTS map sheets 104G/03 and 104G/04.

The town of Smithers, located 370 km to the southeast, is the nearest major supply centre. Access to the property is presently by helicopter. During the 2004 program most personnel, supplies and equipment were staged from the Bob Quinn airstrip and transported via helicopter to the Galore Creek camp. A 500-meter gravel airstrip at Galore Creek was cleared of brush this year but not used.

The Galore Creek property is held by Stikine Copper Limited. In August 2003, SpectrumGold Inc. (now NovaGold Canada Inc.) entered into an option agreement to acquire Stikine Copper Limited from its shareholders QIT-Fer et Titane Inc. (55%) and Hudson Bay Mining and Smelting Co. Limited (45%). Under terms of the agreement, in order to acquire Stikine Copper Limited, NovaGold must complete a pre-feasibility study on the project and make payments to the owners totaling US$20.3 million within a period of eight years. After exercise of this option there will be no retained interests, royalties or back-in rights on the project. The Galore Creek property consists of 292 two-post claims, of which 39 are fractions, all held in the name of Stikine Copper.

Since the initial option agreement on the Galore Creek claims in 2003, NovaGold has acquired significant ground in the area through staking or purchase, and signed option agreements which if exercised will enable NovaGold to enter into joint ventures over other properties adjacent to Galore Creek including the Copper Canyon property with Eagle Plains Resources Ltd., and the Grace property with Pioneer Metals Corporation. Appendix 1 lists the Stikine Copper claims. Figure 6.2 shows the details of the 2-post claims of the Galore Creek property.

During 2004, the majority of the Galore Creek claims were brought to a common anniversary date of December 1st. Assessment work was filed on all of the claims in the Galore Creek, Copper Canyon and Grace properties, as well as adjacent ground acquired prior to the anniversary date of December 1st.

Exploration work was carried out under ministry mine permits number MX-1-608, 621, 622 and 623.

Figure 4.1: Location map of the Galore Creek property

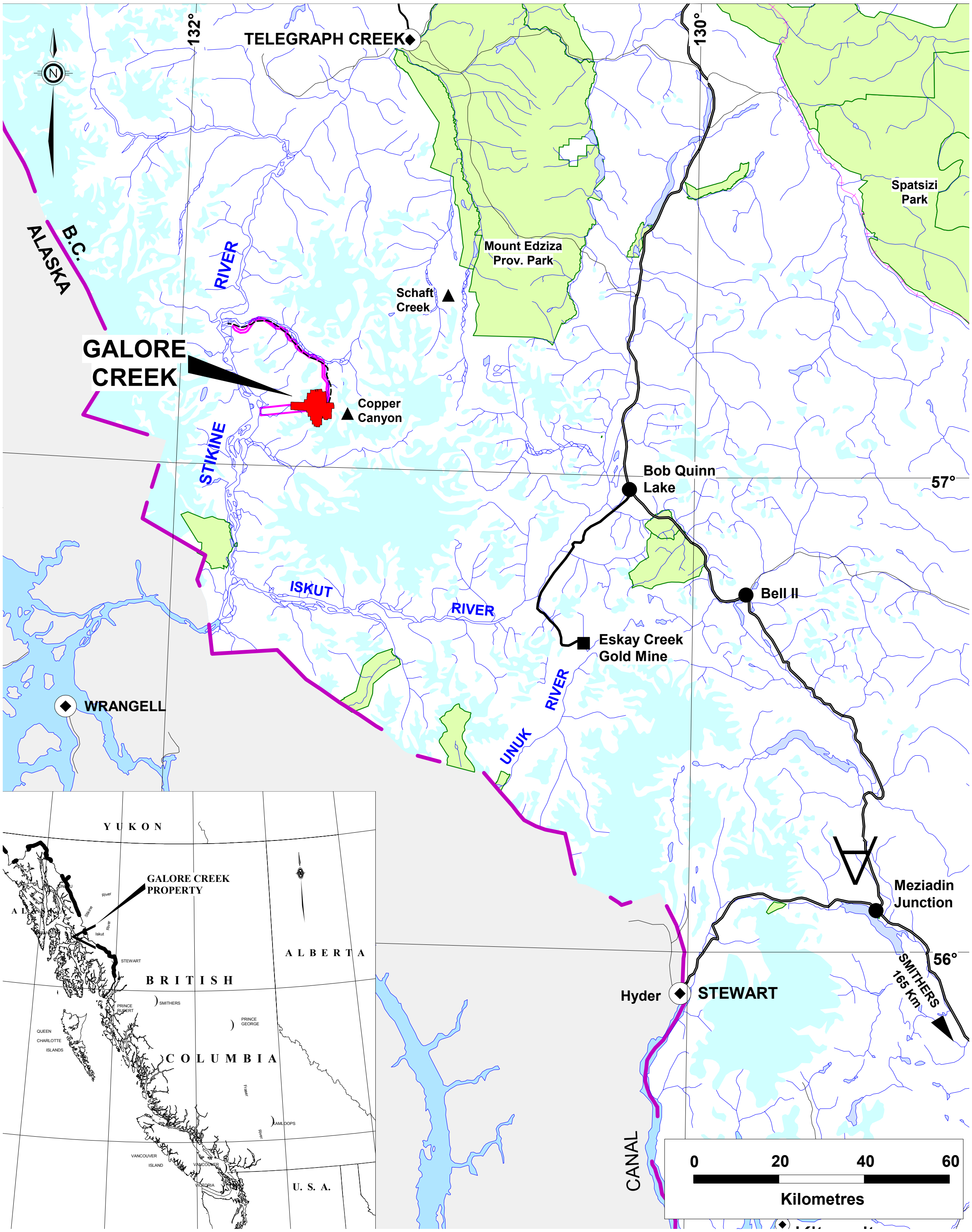
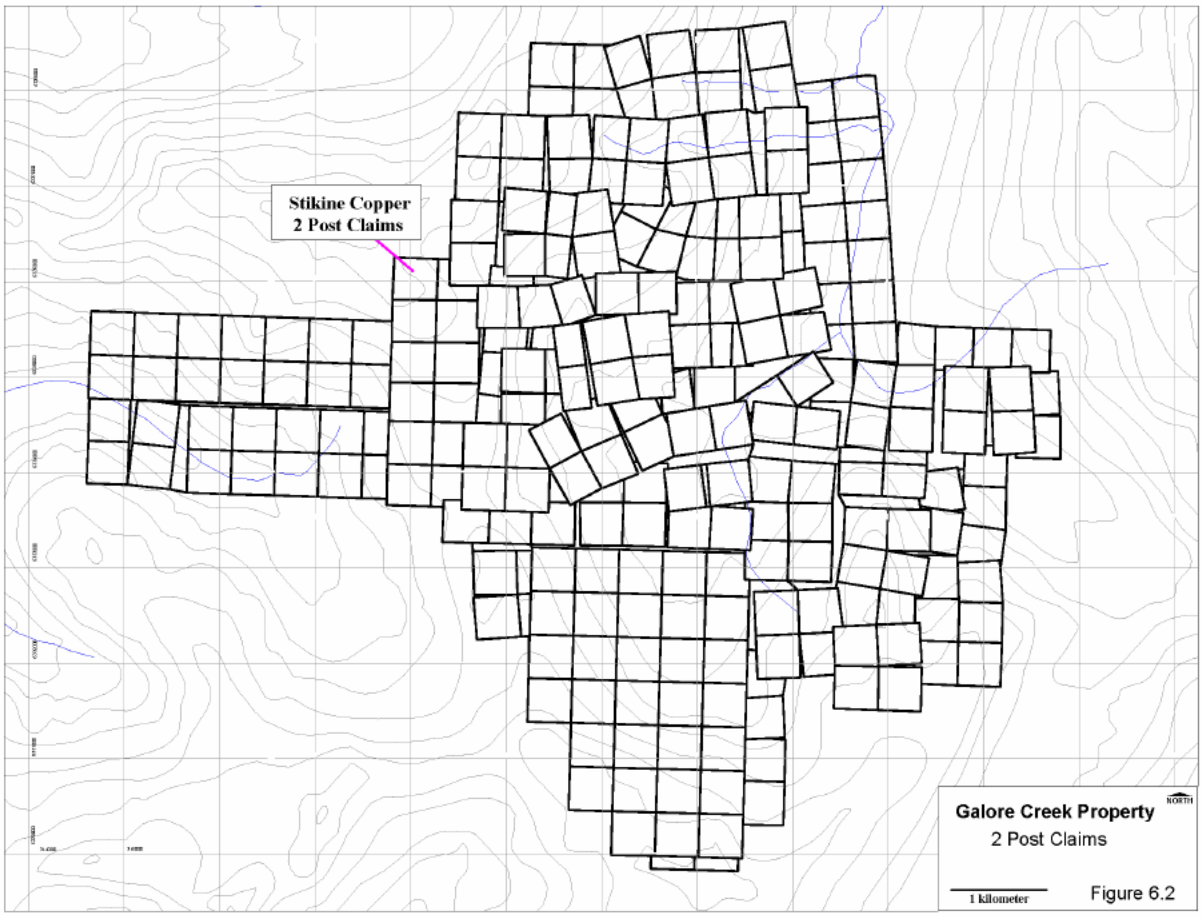


Figure 4.2: Two-Post Claims - Galore Creek Property



5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The town of Smithers, located 370 kilometers to the southeast, is the nearest major supply centre. Access to the property is presently by helicopter. During the 2004 program most personnel, supplies and equipment were staged from the Bob Quinn airstrip and transported via helicopter to the Galore Creek camp. A 500-meter gravel airstrip at Galore Creek was cleared of brush in 2004 but not used.

Galore Creek and the Scud River flow to the Stikine River, an international waterway that drains an area of 49,000 square kilometers. Historically, the river was used by shallow draft barges and riverboats to transport goods from Wrangell, Alaska to Telegraph Creek, B.C., a distance of 302 kilometers. The river is navigable for shallow draft watercraft from mid May to October. The nearest point on the Stikine River to the property is the mouth of the Anuk River, which lies 16km west of the Galore Creek camp.

In the 1960's Kennecott constructed 48km of road from the mouth of the Scud River to the Galore Creek camp. The road now in very poor condition would require repair along the Scud River and portions of the Galore Creek Valley before use by the project.

Galore Creek is located in the humid continental climate zone of coastal BC. Summers are generally cool, and winters cold, with substantial snowfall. Property temperatures range from 20^{o}C in the summer to well below -20^{o}C in the winter. Annual precipitation is approximately 2100 millimeters with the majority (70%) falling as snow between September and February.

Physiographically, the Stikine-Iskut area is characterized by rugged glacier-capped mountains with elevations between 500 to 2080 meters above sea level and intervening deep U-shaped valleys. Relief on the property varies from moderate to locally severe with tree line, located at an elevation of approximately 1100 meters, dividing forests of Balsam fir, Sitka spruce, alder, willow, and cedar from the sparse grasses, brush, and barren rock exposures above.

6. HISTORY

This section has been adapted from Simpson (2003).

Mineralization was first discovered in the upper Galore Creek valley by M. Monson and W. Bucholz while prospecting for Hudson Bay Exploration and Development Company Limited in 1955. Staking and sampling were completed in the area in 1955. Work in 1956 included mapping, trenching and diamond drilling. No further work was undertaken and most of the claims were allowed to expire.

In 1959 reconnaissance stream silt surveys were carried out by Kennco Explorations (Western) Limited in the Stikine River area. Results from this work prompted Kennco to stake mineral claims the following year around the remaining 16 claims owned by Hudson Bay. Four of the original claims were subsequently optioned by Consolidated Mining and Smelting Company of

Canada Limited from W. Bucholz. Late in 1962 the three companies agreed to participate jointly in future exploration work. As a result, Stikine Copper Limited was incorporated in 1963.

Work conducted since discovery in 1955, outlined a significant gold-silver-copper resource in the Central Zone and identified a number of satellite deposits, of which the most important are the Southwest, North Junction and Junction Zones. The other seven mineral occurrences on the property are: West Rim, Saddle, South Butte, South 110, Middle Creek, North Rim and the newly discovered West Fork.

From 1960 to 1968, the property was explored by Kennco Exploration (Western) Ltd. Exploration work during this period included 53,164 meters of diamond drilling in 235 holes and 807 meters of tunneling in two adits. The Central zone was the focus of most of this work. No work on the property was undertaken from 1968 to 1972. In 1972, Hudson Bay Smelting became operator and in 1972 and 1973 an additional 25,352 meters of diamond drilling was completed in 111 holes. This work focused exclusively on delineating resources in the Central and North Junction zones. A further 5,310 meters of diamond drilling was completed in 24 holes in 1976. Mingold Resources, an affiliate of Hudson Bay, was operator of the property in 1989 and 1990. They investigated the gold potential by drilling 18 core holes totaling 1225 meters. Kennecott resumed operatorship of the project in 1991 and completed 18,380 meters of diamond drilling in 49 holes. An airborne geophysics survey and over 90 line kilometers in an induced polarization (IP) survey were also completed by Kennecott.

Mine Reserve Associates, Inc. completed a resource model in 1992 for Kennecott Exploration. Based on this model, Kennecott re-classified the mineral resource to comply with industry standards existing in 2002. Values used were $10/tonne in situ metal value as a cutoff grade based on US$0.80/lb copper and US$320/oz gold prices. Kennecott estimated an Indicated Resource of 243.2 million tones grading 0.75% copper and 0.45g/t gold containing 3.6 million ounces of gold and 4.0 billion pounds of copper. In addition, an Inferred Resource was estimated to be 70.6 million tones grading 0.59% copper and 0.63g/t gold containing 1.4 million ounces of gold and 920 million pounds of copper. Silver was not included in the 1992 resource model. This resource estimate does not conform to NI 43-101 standards and is reported as a historical estimate only.

The Galore Creek property is held by Stikine Copper Limited. In August 2003, SpectrumGold Inc. (now NovaGold Canada Inc.) entered into an option agreement to acquire Stikine Copper Limited from its shareholders QIT-Fer et Titane Inc. and Hudson Bay Mining and Smelting Co. Limited. NovaGold carried out a ten hole 2,950 meter diamond drill program on the property in September and October of 2003. The work program was directed toward confirming grades of copper and gold mineralization defined by previous drilling in the Galore Creek deposit. Results from the drill program confirmed the presence of high-grade gold and copper mineralization over bulk mineable widths.

Table 8.1 summarizes the entire work history for the property from 1960 through 2004. There has not been any historical production from the property.

Table 6.1 Work History 1960 - 2004

Year	'60	'61	'62	'63	'64	'65	'66-'67	'72	'74	'76	'88	'89	'90	'91	'92-2002	'03	'04	TOTAL
CLAIM STAKING	119	56	13	43	57												105	399
GEOLOGICAL MAPPING (sq.km.)	76	20	6	2	2									12			2	120
DIP NEEDLE	4																	
AIRBORNE GEOPHYSICS		270												459			1072	1801
GROUND MAGENTICS		55											18	85			1	159
GROUND VLF-EM												11	11	70				92
INDUCED POLARIZATION		43	42	30													28	143
STREAM SEDIMENT SAMPLING	47	45										157						249
SOIL SAMPLING		700		250								729	37	600				2316
ROCK SAMPLING			149									210	13	63				435
REASSAYING OLD CORE											459	219	232	18000				18910
SURFACE DRILLING (m)		378	4717	10666	13718	17572	5992	10431	14928	5318			1925	13829		2794	25976	128244
UNDERGROUND DRILLING (m)							163											163
UNDERGROUND DRIFTING							850											
LINECUTTING		53	21	32													28	234
POST LOCATION					267		14											281
BOUNDARY SURVEYS					21	47	3											71
AIRSTRIP CONSTRUCTION Galore Creek (520m x 30m)					1		1											2
Scud River (1500m x 45m)					1													1
ECONOMIC EVALUATIONS									Wright							Hatch	Hatch	

7. GEOLOGICAL SETTING

The following is excerpted from Simpson (2003):

The Galore Creek deposits lie in Stikinia, an accreted Terrane of Mesozoic volcanic and sedimentary rocks intruded by Cretaceous to Eocene plutonic and volcanic rocks. The eastern boundary of the Coast Plutonic complex lies about 7 kilometers to the west of the claims. The property lies within a regional transcurrent structure known as the Stikine Arch. Figure 9.1 shows a simplified regional geologic map.

7.1 Stratigraphy

The Stikinia Terrane in northern British Columbia can be grouped into four tectonostratigraphic successions. The first, and most important as the ore hosting stratigraphy at Galore Creek, is a Late Paleozoic to Middle Jurassic island arc suite represented by the Stikine assemblage of Monger (1977), the Stuhini Group (Kerr, 1948) and the Hazelton Group. The other tectonostratigraphic successions in the area are: the Middle Jurassic to early Late Cretaceous successor-basin sedimentary rocks of the Bowser Lake Group (Tipper and Richards, 1976); the Late Cretaceous to Tertiary transtensional continental volcanic-arc assemblages of the Sloko Group (Aiken, 1959); and the Late Tertiary to Recent post-orogenic bimodal volcanic rocks of the Edziza and Spectrum ranges.

The Stikine assemblage, the oldest known stratigraphy in the area comprises Permian and older argillites, and mafic to felsic flows and tuffs. The topmost stratigraphy consists of two regionally extensive Permian carbonate units which suggest a stable continental shelf depositional environment.

The Middle to Upper Triassic Stuhini Group unconformably overlies the Stikine assemblage. Stuhini Group rocks comprise a variety of flows, tuffs, volcanic breccia and sediments, and are important host rocks to the alkaline-intrusive related gold-silver-copper mineralization at Galore Creek. They define a volcanic edifice centered on Galore Creek and represent an Upper Triassic island arc characterized by shoshonitic and leucitic volcanic rocks (de Rosen-Spence, 1985), distal volcanoclastics and sedimentary turbidites. The succession at Galore Creek was divided by Panteleyev (1976) into a submarine basalt and andesite lower unit overlain by more differentiated, partly sub aerial alkali-enriched flows and pyroclastic rocks.

A fault-bounded wedge of unnamed Jurassic sediments overlies the Stuhini Group rocks. The Jurassic section includes a purple to red, arkosic-matrix polymictic boulder and cobble conglomerate that contains fragments of K-feldspar porphyries, probably derived from the Galore Creek Intrusive complex.

7.2 Intrusive Rocks

Three intrusive episodes have been recognized in the region. The earliest and most important is the Middle Triassic to Middle Jurassic Hickman plutonic suite that is coeval with Upper Triassic Stuhini Group volcanic flows. The Mount Hickman batholith comprises three plutons known as Hickman, Yehino and Nightout. The latter two are exposed north of the map area. The Schaft

Creek porphyry copper deposit is associated with the Hickman stock, and is located 39 km northeast of Galore Creek. This stock is crudely zoned with a pyroxene diorite core and biotite granodiorite margins. Alkali syenites of the Galore complex like those found at the nearby Copper Canyon deposit and the pyroxene diorite bodies of the zoned Hickman pluton have been interpreted as differentiated end members of the Stuhini volcanic - Hickman plutonic suite by Souther (1972) and Barr (1966). The alkali syenites are associated with important gold-silver-copper mineralization at Galore Creek and at Copper Canyon. These rocks are believed to be at least as old as Early Jurassic in age, based on K-Ar dating of hydrothermal biotite in the syenites intruding the sequences (Allen, 1966). An Ar-Ar age of 212 Ma (Logan et al., 1989) in syenite may give the time of crystallization of the intrusive rocks at Copper Canyon, to the east of Galore Creek. More recent U-Pb dates of Galore Creek syenites have given ages ranging from 205-210 Ma (Mortensen, 1995).

Coast Range intrusions comprise the large plutonic mass west of the project area. Three texturally and compositionally distinct intrusive phases were mapped by previous workers. From inferred oldest to youngest, they are Potassium feldspar megacrystic granite to monzonite; biotite hornblende diorite to granodiorite; and biotite granite.

Small Tertiary intrusive stocks and dykes likely related to the post-orogenic bimodal volcanic rocks of the Edziza Range are structurally controlled in their distribution through the project area. At Galore Creek these post-mineral basalt and felsite dykes occur as a dyke swarm in the northwest part of the property.

7.3 Structure

Poly-phase deformation and four main sets of faults influence the regional geology. The oldest phase of folding is pre-Permian to post-Mississippian and affected the Paleozoic rocks between Round Lake and Sphaler Creek. Bedding-plane-parallel foliation in sediments and fragment flattening in volcanoclastics characterizes this deformation. Pre-Late Triassic folding is characterized by large, upright, and tight to open folds with north- to northwest-striking axial planes in west-verging folds. Metamorphism accompanying the first two phases of deformation reached greenschist facies. Generally upright chevron folds with west-northwesterly trending fold axes define the third phase.

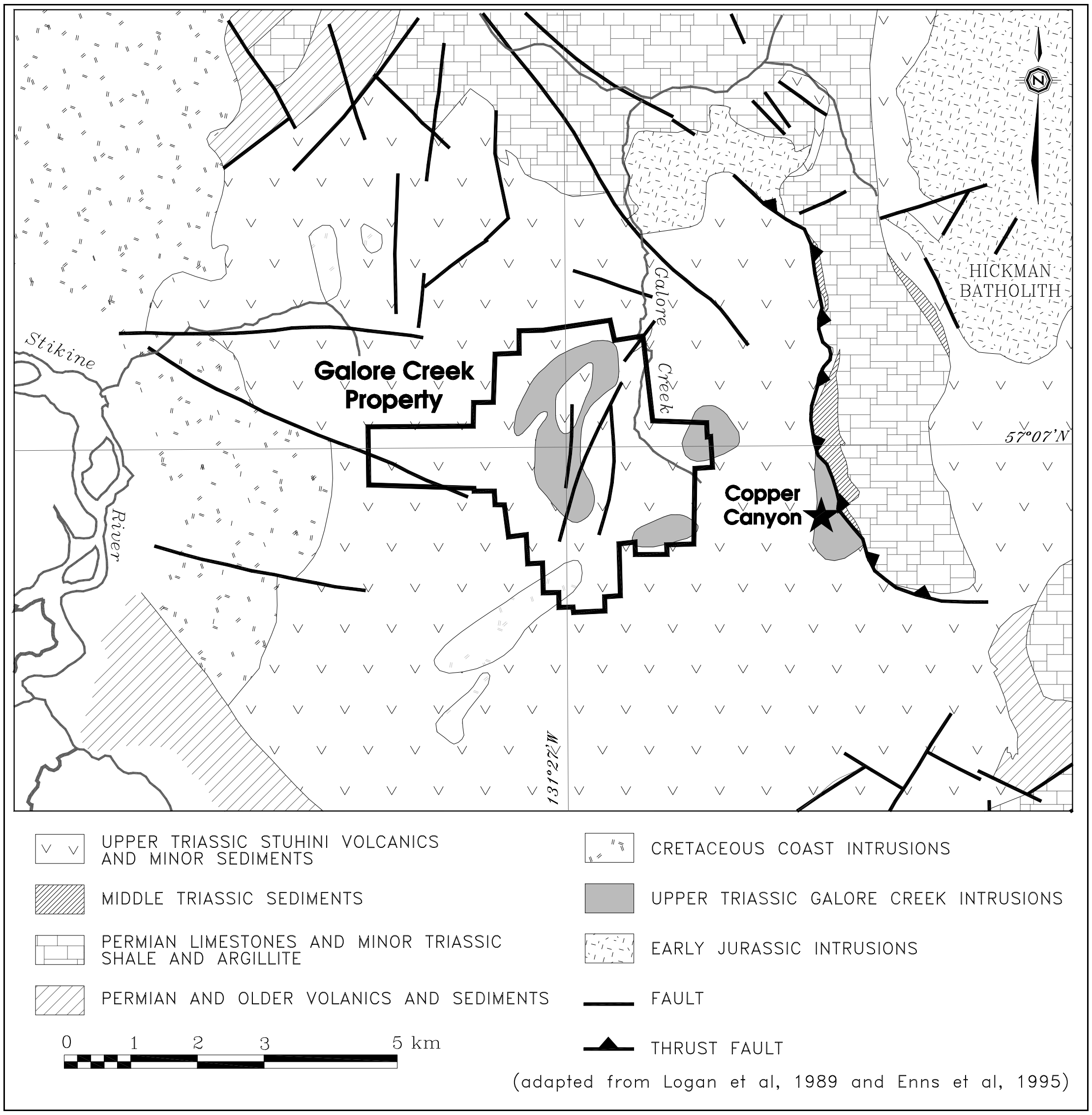
The oldest and longest-lived faults in the area have a north strike and sub-vertical dip. The best example occurs on the west flank of the Hickman Batholith, where a major fault juxtaposes Permian limestone with a narrow belt of Stuhini Group volcanic rocks. The second important fault type occurs at Copper Canyon as a west directed thrust fault with a north strike and east dip of 30 to 50 degrees. It juxtaposes overturned Permian limestone and Middle Triassic shale with Stuhini volcanic rocks below. Early to Middle Jurassic syenite intrusions locally occupy this contact. A third important set of faults with north-west strike mark the boundary between Upper Triassic and Paleozoic rocks between Scud River and Jack Wilson Creek. The youngest faults have a northeast strike direction and are of great local importance. At Galore Creek, some of these faults show considerable post-mineral movement of up to 200 metres while others appear to control the emplacement of mineralized intrusive phases and breccia bodies.

7.4 Lithologic Descriptions

Property-wide there are 107 different lithology codes. Stikine Copper Limited delineated the first 100 codes in 1991. Seven additional codes were created in 2004 by NovaGold Canada Inc.

Roughly 30 primary rock types exist, most of which have subdivisions based on textural or temporal differences. Textural subdivisions exist for volcanic rocks, intrusive rocks, and breccias, and are self-explanatory. Temporal relationships of mineralization and cross-cutting intrusive relationships define the subdivisions for intrusive rocks. The necessity of such a detailed classification scheme is currently under review, as a simplified scheme will assist correlation of data within the model.

Figure 7.4.1 - Regional Geology (taken from Simpson, 2003)



8. DEPOSIT TYPE

This section has been adapted from Termuende (2002).

"The Galore Creek property is situated within and associated with a curvilinear belt of bi-modal calc-alkaline and alkaline Upper Triassic-lower Jurassic Nicola-Takla-Stuhini volcanic assemblages and comagmatic plutons and associated porphyry Cu-Mo and Cu-Au-Ag deposits respectively that extends along the Intermountain Belt from south of the British Columbia-Washington border along Quesnel Trough through the Stikine region and into the Whitehorse Trough, Yukon Territory. Several major alkalic porphyry deposits ranging in age from 175 to 201 million years associated with alkalic stocks, dykes and intrusive breccias controlled by north to northwest trending major fault structures are known along this belt including Copper Mountain-Ingerbelle, Afton, Cariboo Bell, Lorraine and Gnat lake deposits (Barr, D. A., et. al., CIM Spec. Vol. 15, 1976).

These deposits tend to occur in regions of fault intersections and are controlled by fractured and/or brecciated zones. Deposits typically show extensive alteration products and sulphides and often lack the classic zoning of calc-alkaline porphyries due to the absence or poorly developed nature of phyllic and argillic zones. Also, alteration zoning patterns tend to be asymmetric as opposed to symmetrical and concentric typical of calc-alkaline deposits. Potassic flooded (i.e. K-feldspar and biotite) core zones or replacement bodies and propylitic altered (i.e. chlorite, epidote and albite) peripheral zones are typical of the alkalic deposits. Copper zones (i.e. chalcopyrite and minor bornite with gold and silver values) usually occur central to the alteration systems although in some cases they occur within the propylitic zone. Sulphides typically occur as fracture fillings (though rarely at Galore) and as disseminated grains, massive lenses and pods and in breccias. Magnetite is commonly associated with these systems and may either coincide with sulphide zones or occur peripheral to the copper zones. Calc-silicate alteration products, including andradite to grossularite garnets, occur within the potassic zones at Galore Creek. Abundant anhydrite is also present.

9. MINERALIZATION

This section has been adapted from Hatch et al. (2004).

"Mineralization at Galore Creek occurs in upper Triassic felsic to intermediate volcanic flows and fragmental rocks. It is associated most closely with intense, pervasive K-silicate alteration as replacements, disseminated and fracture-controlled chalcopyrite with locally abundant bornite. Higher gold values are normally associated with bornite mineralization."

9.1 Central Zone

The Central zone is the largest and most extensively explored of all the deposits and is characterized by fairly complex geology. Mineralization is exposed in the southern part of the zone, but elsewhere it is covered by up to 75m of glacial overburden. Between 80 % and 90 % of the gold-silver-copper occurs as sulfide replacement of the host volcanic rocks. The grade of the mineralization commonly exceeds 1 % Cu decreasing rapidly at the margin of the zone.

The Central zone deposit has an orientation of 015° and dips steeply to the west. It is 1700 metres long, 200 to 500 metres wide and has been traced to a depth of 450 metres and remains open. The eastern boundary of the Central zone mineralization lies near the surface projection of a major, steeply west dipping, brittle normal fault. In the west and south, mineralization is partially truncated by post-mineral megaporphyry dykes. In the north, mineralized volcanic rocks end abruptly against a thick sequence of weakly to unmineralized epiclastic sedimentary and volcanic rocks as a result of a WNW-oriented post mineral fault.

The Central zone exhibits considerable internal variations in both mineralization and alteration. Hydrothermal alteration changes from Ca-K-silicate in the core region to intense K-silicate alteration toward the north and south parts of the zone. In terms of gold-silver-copper replacement mineralization, the most favorable volcanic lithologies are the pseudoleucite-bearing volcanic rocks in the north and the dark crystal tuffs in the south. Augite-bearing units in the north are low to moderate in copper content and the core of the deposit hosts a mineralized orthomagmatic breccia. Gold values are highest in the northern and southern portions of the Central Zone where significant disseminated bornite, magnetite and hematite are present. Lower gold grades correlate with the intense Ca-K-Silicate altered core region. Chalcopyrite is the most important copper mineral and occurs as replacements, disseminations and fracture fillings throughout the zone. Supergene copper mineralization is minor and occurs primarily as malachite, azurite and chrysocolla on fractures, generally within 60 metres of surface. Pyrite increases in abundance to the east of the Central Zone reaching concentrations of up to 5 %.

9.2 Southwest Zone

The Southwest zone is located about 600 metres southwest of the south end of the Central zone and contains some of the highest grade near surface gold mineralization. Kennecott envisioned the southwest area as a potential high-grade starter pit. Drilling has outlined an elongate pod shaped body that trends roughly east-west and dips approximately 60° to the south. The zone is up to 400 metres long and may be as wide as 140 metres; however, the 1991 drilling suggests that the zone narrows at both the eastern and western ends of the deposit. The Southwest zone is still open at depth. Primary hosts for the Southwest mineralization are a breccia and an early-phase syenite intrusion. Localization of high-grade gold-silver-copper mineralization within the breccia appears to relate to a combination of structural traps.

9.3 Junction Zones

The Junction and North Junction zones lie about 2 kilometers northwest of the Central zone and about 460 metres higher in elevation. They are a series of irregular, generally flat-lying manto-shaped bodies plunging about 20° to the northeast. Width of the zones varies from 50 to 150 metres. The mineralization, consisting of disseminated chalcopyrite and bornite, is hosted by fine to coarse lapilli tuff and feldspar phyric flows. Higher gold and copper grades correlate with the presence of bornite in the North Junction zone. K-silicate alteration consisting of pervasive hydrothermal biotite and K-feldspar flooding is associated with the mineralization. A large mass of late-mineral I9b megaporphyry truncates the zone on the west.

9.4 West Fork Zone

The West Fork zone lies in the valley floor less than one kilometer south of the Central zone and less than 50 metres higher in elevation. West Fork contains two adjacent but distinctly different styles of mineralization; disseminated sulfide replacements similar to portions of the Central zone, and massive veining. The disseminated mineralization is characterized by disseminated chalcopyrite and bornite hosted by a combination of intrusive and volcanic rocks. Higher grade disseminated zones appear to have a possible structural control locally though distinct veining is absent.

The Opulent vein, which consists of massive chalcopyrite, bornite and magnetite defines the other style of mineralization at West Fork. Sulfide textures indicate fissure-style fillings of open space, but associated calc-silicate gangue minerals, possibly tremolite, indicate replacement. The known extent of the Opulent vein is limited within a breccia mass and strikes approximately 355° with a steep west dip.

10. EXPLORATION

The 2004 exploration program was designed to confirm results from past exploration, to extend the limit of known mineralization, and to advance the geological understanding of the system. To accomplish this goal the program utilized extensive drilling, detailed logging and re-interpretation, and both ground and airborne geophysical techniques.

The 2004 diamond-drilling program included 25,976 meters of HQ, NQ and BQ sized core recovered from 79 drill holes. In total, the Central zone database now includes 332 drill holes. There are 44 drill holes in the Southwest zone, 51 holes in the Junction zone, and 36 holes in the West Fork zone.

In 2003 and 2004, the core recovered from each drill hole was flown to the Galore Camp, where it was logged for lithology, alteration, mineralization, structure, core recovery and rock quality density (RQD). The core was subsequently cut in half using a diamond saw and sampled at appropriate intervals. After data capture and sampling the core was transported to permanent storage at the Galore Creek camp.

10.1 Extent of All Relevant Exploration

Geological mapping, and results from surface geochemical, and geophysical studies have added considerable value to the project. Table 12.1 lists the relevant exploration work on the property along with contractor name and supervisor.

Table 10.1
Exploration Employees / Contractors

Job Function / Year	Supervisor	Contractors	Work Performed
Geology			
1957-91	unknown	unknown	
2003	Scott Petsel	Vancouver Petrographics	Petrography
2004	Scott Petsel	John Proffett, Vancouver Petrographics	Mapping, Petrography
Laboratory			
1957-89		unknown	
1990		TSL Laboratories	
1991			
2003		ALS Chemex Laboratories	
2004		ALS Chemex Laboratories	Geochemical Analysis, Specific Gravity determinations
Geophysics			
1962	Norman		Airborne Mag
1964	R.A. Bell & P.G. Hallof		IP
1966	R.D. Falconer		IP, Ground Mag
1989	A.D. Ettlinger, et al.	Aerodat	Airborne EM
2004	Lou O'Connor	Fugro, Zonge, Frontier, Aurora	Airborne Mag, Radiometrics, Ground IP, Seismic, Ground Mag
Drilling			
1957-90			
2003	Scott Petsel	Britton Brothers	HQ and NQ diamond drilling
2004	Scott Petsel	Britton Brothers	HQ,NQ and BQ diamond drilling

10.2 Results of Surveys, Procedures and Parameters

Regional stream silt geochemistry was instrumental in the discovery of the mineralization at Galore Creek and more detailed silt sampling programs were carried out in 1960-61 and 1989.

A significant area of the property lacks sufficient soil development for soil geochemistry to be of any practical use. Soil grids were established in the areas around the North Rim and Southwest zones. A few reconnaissance traverse soil lines were also sampled along contour between the Saddle zone and the Central zone.

In 1991, 600 soil samples were collected from a grid established in the North Junction / North Rim area. Samples were taken on 20-meter stations along lines spaced 100 metres apart. A coincident Cu-Au soil anomaly with peak values of 9060 ppm copper and 550 ppb gold was located over the North Rim showing area. A total of 63 surface rock chip samples were also collected from various showings on the property.

At least two previous geophysical surveys, dating back to 1961, have been conducted on the Galore Creek property. In the period of 1961 to 1967 major surveys included aeromagnetics, dipole-dipole IP/Resistivity, ground magnetics and AMT. Between 1989 and 1991 a second episode of geophysical exploration occurred. Surveys included an Aerodat helicopter magnetic survey, EM and radiometric survey, ground magnetics/VLF and 60 meter pole-dipole IP/Resistivity surveys.

Geophysical surveys completed at Galore Creek during 2004 included the following:

1. A helicopter supported magnetic and radiometric surveys to the north and east covering the Grace and Copper Canyon claims flown by Fugro Airborne Surveys and covered 1072 line kilometers.
2. Wide-spaced, large dipole IP/Resistivity lines combined with 2D IP/Resistivity modeling were used to extend the depth of mineral exploration. The work, by Zonge Engineering, covered approximately 28 linear kilometers on 17 lines using a 100 or 150 meter dipole-dipole array.
3. Shallow seismic refraction surveys for engineering design were run by Frontier Geosciences. The survey covered a total of 10.5 kilometers on 11 lines using 10 meter spaced geophones.
4. A ground magnetics survey was completed that used a 25m line spacing with 5m stations across the Opulent vein in the West Fork area by Aurora geophysics.

10.3 Underground Development

This section has been adapted from Hatch et al. (2004).

In order to extract a 50-ton bulk sample for pilot plant testing, an adit was driven into the Central zone and samples were collected from four crosscuts. The work was carried out by Haste Mine Development between August 1966 and January 1967 and totaled 799 metres of underground drifting (2m x 2m). The rock quality in this part of in the Central zone was found to be generally weak and intensely fractured in gypsum-free areas, but tough and competent in zones of gypsum cementation.

Seven underground diamond drill holes were collared from the 2070 adit. Severe recovery problems were encountered because the holes were of small diameter and drilled sub parallel to the flat-lying, sheet fractures. No assay data was located for these holes.

Sampling of the adit and drift walls was carried out over continuous horizontal 3 meter intervals plus vertical channels alongside the traces of diamond drill holes. Although commonly referred to as "channel" samples, one internal memo described them as "contentious (sic) chip samples". The vertical samples taken adjacent to the drill hole traces correlated within 0.1% copper. When compared to horizontal samples on the opposite side of the drift, significant variation was found in higher-grade areas (>1.5% Cu) where massive blebs of chalcopyrite were encountered. In these areas variations often exceeded 0.4% copper for opposing walls. Subsequent check sampling along some of the same channels confirmed this variation.

At the North Junction zone, a smaller adit (1.2m x 2.1m) was collared in badly fractured and altered tuff. After driving through 26 metres of material grading about 0.5% copper, a low-grade dike was encountered. Total length of the adit was 51 metres.

10.4 Reliability of the Data

The procedures followed by NovaGold in the field and through the interpretation stage of exploration have been professional. Various crews under the supervision of professional geologists carried out the exploration work. It is considered that the reliability of the data obtained with exploration is very high.

11. DRILLING

Refer to Simpson, 2003 and Hatch et al., 2004 for more information on drilling prior to the 2003 and 2004 programs.

Diamond drilling in 2004 targeted eight different mineralized areas:, the Central zone (which includes the North Gold Lens, Central Replacement Zone, and South Gold Lens); the Copper Canyon property; the Gap zone; the Grace Claims; the North Junction zone; the Saddle zone; the Southwest zone; and the West Fork zone. Drill hole collar locations were selected to test surface mineralization and geophysical targets, confirm results from past drilling, and to extend the limits of known mineralization. Table 13.1 summarizes 2004 drilling excluding the Grace and Copper Canyon drilling.

Core drilled in 2004 was transported to the Galore Creek camp and logged in its entirety. The 1991 Stikine Copper Ltd. nomenclature was used where lithologies matched existing codes; seven new rock codes were created to accommodate lithologies not present in the previous dictionary.

Logging included coded and textural descriptions of lithologies and a detailed geotechnical description of fracture styles and densities. Data were entered in an Access database using DDH Tool, an in-house front-end data entry program. Once logged the core was sawed; half was sent to ALS Chemex Labs for analysis and the other half stored at the Galore Creek camp. In addition to the core, control samples were inserted into the shipments at the approximate rate of one standard, one blank and one duplicate per 20 core samples. Petrographic analyses were completed on 45 samples by Vancouver Petrographics; these include Galore Creek and Copper Canyon 2004 drill core and historic drill core samples.

Britton Bothers Diamond Drilling of Smithers, B.C. completed the 2004 work using both skid and helicopter portable drill rigs. All of the 2004 drilling on the property has been continuous-core diamond drilling, using HQ, NQ and BQ size core.

11.1 2004 Procedures

The procedures used to locate exploration drill holes in 2004 were as follows: the proposed drill site was located in the field by a geologist using a hand-held GPS unit; a pad was then built and the drill rig placed on the site by helicopter or dragged into the position using a bulldozer. The orientation of the drill hole was set by the geologist with a set of pickets to provide the azimuth, and the declination of the hole was noted. Upon completion, drill hole collars were surveyed using a differential GPS with an Ashtech receiver. Down hole surveys were completed using an Icefield MI3 Autoshot Digital borehole tool.

Upon completion of the hole, the drill pipe was removed from the hole with surface casing left to mark the hole location.

All drill core was transported to the Galore Creek camp for logging and sampling. The Galore Creek nomenclature was used where lithologies matched existing codes; new rock codes were created to accommodate lithologies not present in the current dictionary.

Logging included coded and textual descriptions of lithologies and a detailed geotechnical description of fracture styles and densities. Data were entered in an Access database using DDH Explore, an in-house front-end data entry program. Once logged, the core was sawed and half was sent to Chemex Labs for analysis, and the other half stored at the Galore Creek camp.

11.2 Sample Length/True Thickness

Sample intervals were determined by the geological relationships seen in the core and limited to a 3 meter maximum length and 1 meter minimum length. An attempt was made to limit sample widths within lithologic units. Sample lengths average 2.88m in the Central zone.

The term “true thickness” is not generally applicable to porphyry-like deposits as the entire rock mass is potentially ore grade material and there is often no preferred orientation to the mineralization. Because of the potential of ore grade material through the entire length of the hole, sampling was generally continuous from the top to the bottom. The mineralization is generally confined to three main lithologies, volcanic rocks, intrusive rocks, and breccias. These lithologies form large massive bodies.

No condemnation drilling has been completed to date.

Table 11.1 – 2004 Galore Creek – Diamond Drill Hole Summary

Hole ID	Area	UTM (E) NAD 83	UTM (N) NAD 83	Elevation (m)	Azimuth	Dip	Core Diameter			Depth (m)
							HQ	NQ	BQ	
GC04-0446	Central	350920.410	6334133.580	781.14	90°	-60°	✗	✓	✗	107.52
GC04-0447	Central	351149.870	6334129.010	802.55	90°	-60°	✗	✓	✗	367.89
GC04-0448	Central	350920.410	6334133.580	781.14	90°	-60°	✓	✓	✗	554.74
GC04-0449	Central	351171.210	6334225.940	779.50	90°	-90°	✗	✓	✗	578.21
GC04-0450	Central	350926.630	6334237.760	777.05	90°	-70°	✓	✓	✗	551.99
GC04-0451	Central	350863.290	6334035.180	806.36	90°	-70°	✓	✓	✓	548.64
GC04-0452	Central	350778.850	6334121.840	811.68	90°	-70°	✓	✓	✗	117.98
GC04-0453	GAP	350504.720	6334006.090	853.96	90°	-60°	✓	✓	✗	491.73
GC04-0455	Central	350587.390	6334328.850	817.07	90°	-60°	✗	✓	✓	399.29
GC04-0456	GAP	350592.310	6333919.220	847.03	90°	-60°	✗	✓	✗	434.95
GC04-0457	Central	350609.900	6334207.980	826.77	180°	-90°	✗	✓	✗	435.86
GC04-0458	SouthWest	350358.970	6333551.750	904.52	360°	-80°	✗	✓	✗	389.23
GC04-0459	SouthWest	350162.410	6333463.490	927.94	360°	-60°	✗	✓	✗	399.20
GC04-0460	SouthWest	350249.470	6333452.440	918.76	360°	-60°	✗	✓	✗	431.90
GC04-0461	GAP	350320.440	6333813.730	890.79	360°	-70°	✗	✓	✗	192.02
GC04-0462	GAP	350397.690	6333803.820	883.30	360°	-60°	✗	✓	✗	166.10
GC04-0463	NorthJunction	349483.912	6336266.185	1268.14	360°	-90°	✗	✓	✗	390.14
GC04-0464	WestFork	350822.173	6333063.291	803.87	360°	-90°	✗	✓	✗	285.59
GC04-0465	NorthJunction	349655.935	6336157.157	1213.07	360°	-90°	✗	✓	✓	310.90
GC04-0466	WestFork	350750.575	6333066.271	807.97	360°	-90°	✗	✓	✓	148.44
GC04-0467	WestFork	350676.181	6333072.493	822.45	90°	-90°	✗	✓	✗	151.49
GC04-0468	NorthJunction	349766.810	6336017.020	1187.10	360°	-90°	✗	✓	✓	283.46
GC04-0469	WestFork	350575.729	6332911.652	839.33	0°	-90°	✗	✓	✗	282.55
GC04-0470	WestFork	350654.545	6332865.474	815.31	0°	-90°	✗	✓	✗	285.60
GC04-0471	NorthJunction	349876.343	6336213.966	1236.35	350°	-90°	✗	✓	✗	246.89
GC04-0472	WestFork	350725.419	6332902.465	806.77	360°	-90°	✗	✓	✗	233.78
GC04-0473	NorthJunction	349455.332	6336107.188	1201.34	360°	-90°	✗	✓	✗	350.52
GC04-0474	WestFork	350407.805	6333160.404	899.16	45°	-90°	✗	✓	✗	285.60
GC04-0475	Central	351156.966	6335640.500	789.47	0°	-90°	✓	✓	✗	633.07
GC04-0476	WestFork	350448.534	6332999.503	894.12	0°	-90°	✗	✓	✗	386.28
GC04-0477	WestFork	350968.341	6333089.445	805.05	0°	-90°	✗	✓	✗	279.50
GC04-0478	Central	351280.343	6334646.048	726.06	90°	-60°	✗	✓	✓	368.81
GC04-0479	WestFork	350786.420	6332989.706	804.52	0°	-90°	✗	✓	✗	294.74
GC04-0480	WestFork	350787.278	6332990.032	804.52	255°	-77°	✗	✓	✗	307.24
GC04-0481	Central	351156.161	6335641.891	789.46	270°	-50°	✓	✓	✗	410.56
GC04-0482	SouthWest	350004.000	6333416.000	932.00	360°	-60°	✗	✓	✗	146.30
GC04-0483	WestFork	350730.872	6332964.361	809.26	85°	-70°	✗	✓	✗	340.77
GC04-0484	Central	351301.720	6334908.020	716.58	90°	-80°	✗	✓	✗	88.39
GC04-0485	Saddle	352782.378	6332481.511	1593.98	0°	-90°	✗	✓	✓	137.67
GC04-0486	WestFork	350726.804	6333020.347	812.26	90°	-60°	✗	✓	✗	300.84
GC04-0487	Central	351246.918	6335746.942	779.54	0°	-90°	✓	✓	✗	556.86
GC04-0488	Central	351301.720	6334908.020	716.58	90°	-85°	✗	✓	✗	378.56
GC04-0489	WestFork	350725.560	6333016.297	812.31	180°	-50°	✗	✓	✗	139.29
GC04-0490	WestFork	350653.182	6332810.394	840.46	0°	-90°	✗	✓	✗	337.41
GC04-0491	WestFork	350574.772	6332995.532	840.46	360°	-90°	✗	✓	✗	346.55
GC04-0492	Central	350973.245	6334784.002	756.46	90°	-60°	✓	✓	✗	520.29
GC04-0493	Saddle	352782.378	6332481.511	1593.98	0°	-90°	✗	✓	✗	53.34
GC04-0494	WestFork	350552.095	6332809.080	850.08	0°	-90°	✗	✓	✗	370.94
GC04-0495	GAP	350503.933	6334009.795	852.53	80°	-80°	✗	✓	✗	393.19
GC04-0496	WestFork	350667.145	6332938.030	818.38	0°	-90°	✗	✓	✗	316.08
GC04-0497	Central	351344.382	6334754.415	710.78	90°	-60°	✗	✓	✗	304.80
GC04-0498	WestFork	350668.622	6332938.235	818.21	55°	-50°	✗	✓	✗	249.02
GC04-0499	GAP	350417.344	6333894.331	874.41	0°	-90°	✗	✓	✗	432.82

Table 11.1 (cont.) – 2004 Galore Creek – Diamond Drill Hole Summary

Hole ID	Area	UTM (E) NAD 83	UTM (N) NAD 83	Elevation (m)	Azimuth	Dip	Core Diameter			Depth (m)
							HQ	NQ	BQ	
GC04-0500	WestFork	350495.580	6333065.535	882.77	0°	-90°	✗	✓	✗	407.52
GC04-0501	Central	351084.689	6335560.696	791.73	0°	-90°	✓	✓	✗	578.20
GC04-0502	SouthWest	350012.617	6333532.971	953.36	0°	-75°	✗	✓	✗	502.92
GC04-0503	Central	351137.444	6334785.199	733.81	90°	-60°	✗	✓	✗	117.95
GC04-0504	WestFork	350485.674	6332907.171	890.64	0°	-90°	✗	✓	✗	374.00
GC04-0505	WestFork	350491.998	6332991.075	888.53	0°	-90°	✗	✓	✗	422.76
GC04-0506	SouthWest	349813.093	6333659.566	990.95	360°	-50°	✗	✓	✗	256.03
GC04-0508	WestFork	350754.839	6332960.545	809.09	90°	-65°	✗	✓	✗	209.40
GC04-0509	WestFork	350578.515	6333148.778	846.82	90°	-65°	✗	✓	✗	153.31
GC04-0510	WestFork	350751.895	6332956.540	809.24	135°	-75°	✗	✓	✗	328.27

12. SAMPLING METHOD AND APPROACH

Samples in the Galore Creek project database come only from drill core, there are no trench or grab samples in the database. Drill hole sample intervals in 2004 were determined by a geologist and averaged 2.9 m in length. Because of the nature of the mineralization, and difficulty determining potential ore from non-ore material, each entire drill hole was sampled. When the whole was in a uniform rock type, the sample spacing was generally 3.0m, which provides a representative sample weight for NQ core. The core recovery was very high with an average of ~80% in 2004.

Un-sampled intervals (from older drilling programs) were mainly late stage, post mineral dykes. Core was split using a diamond saw (older programs used a mechanical splitter). One half of the core was returned to the core box and the other half shipped to an outside laboratory for analysis. The core returned to the boxes remains on site as a record of the hole. Pulps and rejects were stored either on site, in a warehouse in Smithers, B.C. or in Vancouver, B.C. Those remaining on site are in degraded sample bags and are not considered worth salvaging.

Core has been stored in either plastic, galvanized steel or wooden boxes. All have been marked with metal tags inscribed with the hole number and interval. An estimated 1500 m of core was spilled in 1972 due to the collapse of a core storage rack. In the winter of 1976 one core shed collapsed and although most of the core was rescued, a number of intervals were not salvageable. Core from the Central zone was largely re-logged as part of the 1991 exploration program. It is now stacked on pallets exposed to the elements and the top layers have suffered deterioration from weathering. Several intervals have also been removed in the past for the purposes of metallurgical testing. Other intervals have been ¼ split for check assaying.

No site-specific standards, blanks or field duplicate samples were used in any of the previous exploration programs. During the 1991 program, every twentieth sample was re-assayed by an umpire laboratory and internal checks were performed by the main assay laboratory. During the 2003 and 2004 drill programs a QA/QC program, including duplicate samples, blanks and standards, was followed.

Table 12.1

Drill Hole Samples

Zone	Number of Holes	Total Length (m)	Number of Samples
Central	321	78,923	26,288
Gap[1]	11	3,181	1,047
Southwest	44	7,834	2,963
Junction	51	11,217	4,423
West Fork	36	8,807	3,192
Total	**463**	**109,962**	**37,913**

Note: 1. The "Gap" is the area between the Central and Southwest zones. Any resources in the area would be included with either the Central or Southwest zones.

It is our opinion that the sampling program was carried out with the reasonable care and skill expected of the engineering profession.

13. SAMPLE PREPARATION, ANALYSIS AND SECURITY

The Galore Creek project has seen many different sampling campaigns. The first drilling was in 1961 and very little is known about the sample preparation, analysis or security from the first three years of drilling.

This section has been adapted from Simpson (2003).

"Sample preparation has gone through several transitions since the early drilling in the 1960's. Prior to 1964, drill core was split in 3 meter lengths then half of the core was shipped to Coast Edridge laboratory in Vancouver for copper assay. Some 30 meter composites were assayed for gold during this period.

In 1964, a small assay laboratory was constructed on site and during the first season of operation, processed 3,747 samples. Half of the split core was crushed on site to ¼ inch then a 340 gram split was separated using a Jones splitter. At the lab the sample was split and crushed to –10 mesh then 95 % of the crushed material was pulverized to -100 mesh and assayed for copper using a double digestion with titration and colorimetric determinations. Intervals that reached or exceeded a minimum copper grade of 0.4 % over intervals of 12 to 18 meter were composited and shipped to Coast Edridge for gold and silver assays. It is not known if these pulps were re-homogenized before compositing. Within distinctly anomalous gold intervals, there are gaps in the original sampling. Early gold assays performed on 30.5 meter composites contradict strongly with later 12-18 meter long composites assayed. The later composites were assayed by commercial lab then checked by the Kennecott Research Centre lab and are considered to be reasonably accurate.

During 1964, cross checking of Galore Creek laboratory copper analyses was carried out on a routine basis by Kennco Explorations laboratory in North Vancouver and at Coast Eldridge laboratory. Several samples were also checked at Hawley and Hawley assayers of Tucson and by Bear Creek laboratory in Denver.

In 1966, composites from the Central Zone were reportedly re-assayed for gold and silver after discrepancies were found between the values obtained in 1964 and 1965. The re-assay was carried out at the Kennco Laboratory in North Vancouver. The results showed marginal increases in gold and silver content. Assay certificates could not be located for either original or re-assayed material.

In 1967, the pulps from 140 samples were split and a portion analyzed by five separate laboratories; Coast Edridge, Sudbury and three of Kennecott's labs. A standard was included with the samples in order to check the reproducibility of the method being used. Comparison of standard assays showed that the Coast Eldridge laboratory (using the titration method) was the least reliable. The field lab assays compared well with atomic absorption analyses at other labs.

In the 1970's programs, the split half of the core samples were still crushed on site to ½ inch and split to obtain a ¾ lb sample. This was further crushed in a cone crusher then placed in Kraft paper bags and shipped by air in locked metal boxes to either the Kennco Exploration Lab in North Vancouver (1972/73), or Chemex Lab (1974) for assay. Assaying for Au and Ag was only performed on composite samples (up to 15m) which averaged over 0.4 % Cu. No information on check assays or quality control from the 1970's drill programs could be located. All coarse rejects from the 1970's were stored on the property.

During the 1990 drill program carried out by Mingold, half of the split core was crushed on site to ¼ inch (6.35 mm) and a 300-325 gram split was taken and shipped to Min-en Laboratory in Smithers for further processing and assaying. For gold analysis, a 30 gram sample split underwent fire assay pre-concentration with an A.A. finish. If >1000 ppb Au was present then a fire re-assay was carried out. If high copper content was noted in drill logs the sample was directly fire-assayed. If gold content reached or exceeded 3.11 g/t (0.1 oz/ton) then the reject portion of the sample was shipped to the Min-En lab in Vancouver for metallic screening. For this process, the entire reject was pulverized to -102 mesh, recombined with the previous pulp portion and metallic screened for +120 mesh gold. Two 30 gm assays were then done on the -120 mesh fraction and the results averaged. The values from both fractions (+120/-120) were then mathematically combined to produce a net gold value. Copper and silver analyses were done on a 2gm sample split from the initial pulp. No check assays were documented and rejects were stored on site.

In 1991 sample preparation was modified on recommendations from Min-En after they undertook a number of tests on coarse reject core samples. The raw core was crushed to 3mm and a 500 gram split taken, pulverized to 95 % -120 mesh then rolled and bagged for analysis. The remaining reject was bagged and stored in Smithers. Samples were fire assayed using one assay ton sample weight. For each gold analysis batch of 24 samples they would insert a blank and a standard sample and when the value of the standard fell outside a 95 % confidence limit the entire batch was re-run.

Internal monitoring of copper assays was routinely conducted on 50 sample batches. The top 10 % of all gold assays per page were rechecked and reported in duplicate along with the standard and blank. Every 20th sample was shipped to Eco-Tech laboratories of Kamloops, B.C. for check assay. The check assays showed reasonable correlation for copper and fairly good correlation with gold at grades exceeding 0.25 g/t, although Eco-Tech assays tended to be marginally higher. Gold grades below 0.25 g/t, showed considerable variation.

During 1991, metallic screening of high-grade gold samples was not routinely carried out. Min-En laboratories tested three high-grade gold samples (+3 g/t) for metallic gold content. Based on this preliminary work they concluded metallic or coarse particle effect may influence high gold assays at Galore Creek. Min-En recommended that metallic gold assays be done on composite samples from high grade zones prior to further resource estimation. A comprehensive re-assay program was undertaken in 1991 to reliably establish the distribution and grade of gold mineralization in the Central Zone. This was mainly due to the absence of continuous gold assays from drill holed completed before 1990. Thirty-one holes drilled in the Central Zone during the 1960's and 70's had no gold assays and the remainder only had gold and silver assays performed on composited mineralized zones (+0.4 % Cu). A total of 100 tonnes of samples were shipped from the property to Min-En laboratories in Smithers, B.C. for assay. This total encompassed 18,784 samples from the Central, Southwest and North Junction Zones with 95 % of the samples from the Central Zone. The sample total includes 12,786 coarse reject samples from earlier drilling and underground sampling and 5,990 core samples from pre-1991 Central

Zone drilling. Results from around 600 of the reject samples could not be used due to problems with duplicate sample numbers."

In 2003-04 the drill core was logged by a small team of geologists and split using a rock saw. A professional geologist supervised all of the work. Half of the drill core has been retained in core boxes at the Galore Creek camp for future reference and sampling. The other half of the core was sampled and shipped to ALS Chemex Laboratory in Vancouver, B.C. The half-core samples were placed in a plastic bag and tagged with a sample number. Groups of samples were placed in larger sacks and shipped by helicopter to the Bob Quinn airstrip. From the Bob Quinn storage area the samples were trucked directly to the lab in Vancouver, B.C. A submission sheet was sent along with each batch of samples so the lab could confirm receiving the samples.

NovaGold has begun organizing the core storage facility, where half of the historic drill core is still in core boxes and available for geology reviews as well as check assays. Some of the old drill core is difficult to identify by hole number and depth making it of little value.

Work completed by employees of the company included core logging, sample layout, and sample splitting. A professional geologist oversaw all of the work from core logging, sample splitting, and shipping.

ALS Chemex Labs carried all of the assay work in 2003-04. The labs are widely used by the mining and exploration industry, and are still in business today. ALS Chemex carries the highest certification as registered assayers, including ISO 9002, ISO: 9001:2000, and they are working towards ISO 17025.

In total, excluding quality control samples, 38,866 samples from the four project areas were submitted for analyses. In 2003-04 the copper analyses were completed by atomic absorption spectrometry (AA), following a triple acid digestion. Gold analyses were completed by standard one-assay-ton fire assay with AA finish.

A comprehensive quality assurance/quality control (QA/QC) program was followed during the 2003-04 seasons. Duplicate samples were used to monitor and measure precision (reproducibility), blank samples representing material with very low concentrations of copper and gold and were used to test for contamination of the samples, while standard samples and assay checks were used to test the degree of accuracy. In total, 1,005 samples were sent for quality control purposes, as blind duplicates, blanks or standards, representing approximately one in every 10 samples or 10.7 % of the samples collected during 2003-04.

The results as reported by ALS Chemex are within acceptable error limits with respect to accuracy and precision, while the contamination was deemed to be minimal.

It is our opinion that the sampling and assay program was carried out with the reasonable care and skill expected of the engineering profession.

14. DATA VERIFICATION

Data verification has been a continuous project since the property was acquired by NovaGold in 2003, and has produced a very 'error free' database. Computer databases for the Galore Creek project have evolved over time, having benefited from both in-house and external services for data management. Up until 1990, data was entered manually. Subsequent to this, assay values were transferred digitally from data files supplied by the assay laboratory.

In 1992 Kennecott conducted an assay database check on 375 assay files representing 7500 samples. The most common mistakes found were typing errors or data that had been missed from the database. There was also some confusion because of missing prefixes in check samples from ECO Tech Lab. Consequently all previous data was merged into a single database, audited and converted from Imperial to metric units prior to the final resource estimation.

The verification completed by G.R. Tech built on work by Simpson (2003) and Hatch et al. (2004) such that there was no overlap and included the following:

Table 14.1
Summary of Verification Programs

Review Program	Number Checked	Errors Found	Error Frequency
Simpson, 2003	1,329	23	1.7 %
Hatch et al., 2004	15% of database	minimal	minimal
G.R. Tech, 2005	3,368 drill hole location and orientation	19	0.6 %
G.R. Tech, 2005	2,307 gold assays	92	4.0 %
G.R. Tech, 2005	3,368 copper assays	50	1.5 %

The verification program has covered a significant number of holes, but not all holes. In total 51 drill holes were checked in detail out of a total of 452 holes in the four zones (11.3%). Of the total number of samples, at least 12.7% have been verified (considering the Simpson and G.R. Tech work only). The data verified is deemed to be representative of the database. It is believed that the work completed by the exploration group has been diligent and has been carried out with care and skill expected of the engineering profession.

15. ADJACENT PROPERTIES

There are two other significant copper/gold properties in the immediate Galore Creek area, Copper Canyon and Grace.

The Copper Canyon claims are adjacent and immediately to the east of Galore Creek, and cover 1,574 hectares. SpectrumGold Inc. (now NovaGold Canada Inc.) entered into an agreement effective October 1, 2003 with Eagle Plains Resources Ltd. (Eagle Plains) to earn up to an 80% interest in the Copper Canyon claims through a combination of share issuances, cash payments and work programs. To the extent that economic mineralization is confirmed on the Copper Canyon claims, it could be developed and processed as part of the Galore Creek operation under the terms of NovaGold's agreement with Eagle Plains. Under the terms of the agreement, NovaGold has an option to acquire a 60% interest in the project from Eagle Plains by completing C$3 million in exploration expenditures over the next 4 years, including making payments totaling C$250,000 to the underlying royalty owner, and issuing 296,296 shares of NovaGold to Eagle Plains. NovaGold may earn an additional 20% interest in the project for a total of 80% by paying Eagle Plains C$1 million and completing a Feasibility Study on the project by no later than September 2011.

The Copper Canyon property has seen intermittent exploration work from the mid 1950's up through 1991. This historic exploration work at Copper Canyon indicated the presence of widespread gold, silver and copper mineralization similar to the Galore Creek deposit. To date mineralization has been identified in three separate areas on the property. A resource estimate for Copper Canyon was completed in February 2005 by Hatch for NovaGold and outlined an inferred resource, at a cut-off grade of 0.35% copper equivalent, totaling 164.8 million tonnes grading 0.35% Cu, 0.54g/t Au, and 7.15g/t Ag(Hatch, 2005).

In March 2004 SpectrumGold Inc. (now NovaGold Canada Inc.) signed an agreement with Pioneer Metals Corporation (TSX: PSM) (Pioneer Metals) to acquire a 60% interest in the Grace property totaling 2,500 hectares that directly adjoins the Galore Creek property to the north. Under the agreement, NovaGold must spend a total of C$5 million over five years on exploration of the property to earn its interest. In addition, NovaGold subscribed for a C$1 million private placement of units in Pioneer Metals.

The Grace property has been the subject of intermittent exploration work including surface geochemistry, airborne and ground magnetic surveys and limited drilling. Based on this historical work, the Grace property is believed to have the potential to host gold-copper mineralization similar to the Galore Creek deposit.

The first recorded work on the Grace Claims was in 1964, when the area was staked as the "Stikine North Group" for the Scud Venture, and Asarco/Silver Standard joint venture. Geological mapping and a magnetometer survey was carried out that year and an I.P. Survey and 1,524m of diamond drilling recommended (Gale, 1964). An I.P. Survey was carried out in 1965 and a minimum of 366m of diamond drilling recommended (Falconer, 1965). Also in 1965 an 549m, -60° hole was drilled in the southern part of the Grace 2 claim. The original claims were allowed to lapse in the 1980's.

Pioneer Metals staked the Grace 1 and 2 claims in 1987 and carried out limited geological mapping and stream sediment sampling (Blusson, 1988). These claims then lapsed in 1989 and were re-staked by Pioneer the same year. Pioneer constructed cat roads for drill access in 1989 and carried out an airborne geophysical survey (Blusson, 1990). A limited geological mapping and geochemical soil sampling program was carried out in 1991 (Kasper, 1991).

16. MINERAL PROCESSING AND METALLURGICAL TESTING

This section has been adapted from Hatch, et al. (2004).

"Underground development for bulk sampling was carried out in the 1966 and 1967. Most of the work was on the Central Zone where 799 metres of tunnels were driven from one adit. A total of 51 metres of underground development was also conducted in the North Junction Zone. Pilot plant metallurgical testing was carried out in 1967 by Wright Engineers Ltd. on a 50-ton bulk sample from the Central Zone. The head grade of the bulk sample assayed 1.28% copper. The overall metallurgical balance from the pilot plant test was as follows:

Table 16.1 - Pilot Test Results

	Grade			Recovery %		
Stream	**Copper %**	**Gold OPT**	**Silver OPT**	**Copper**	**Gold**	**Silver**
Feed	1.28					
Concentrate	25.2	0.157	5.48	96.1	63.9	84.5

The optimum grind for rougher flotation was established at 75% passing 100 mesh (149 microns) and 50% passing 200 mesh (74 microns). The optimum grind for concentrates was established at 95% passing 325 mesh (37 microns). Britton Research Ltd. conducted testing of lower grade material and estimated recoveries of 83% and 81% for copper grades of 0.54% and 0.31% respectively.

In 1992, further bench flotation tests were carried out on drill core from five 1991 holes by Dawson Metallurgical Laboratories in Salt Lake City. The object of this study was to determine the amenability of the composites to a standard flow sheet developed previously and to determine if gold recovery could be significantly improved. The study used 4 composites from the Southwest Zone and two from the Central Zone. It was found that both gold recoveries and copper concentrate grades for the Southwest Zone were lower than those indicated for the Central Zone. This was attributed to the higher pyrite content in the Southwest Zone and the association of at least part of the gold with pyrite. Overall copper and gold recoveries in a copper concentrate grading 25% copper were estimated at 90.3% and 58% respectively based on constant tailing grades of 0.065% copper. Concentrator tail grades for gold also tended to remain fairly constant at 0.137 grams per tonne for the Central Zone and 0.274 grams per tonne for the Southwest Zone. Gold recovery was projected based on head assay and rougher tail residue. A nugget effect was observed in tests from many of the higher-grade composites. Gold recoveries were not optimized as part of these studies."

It was also reported that several composites were not upgraded to 25% copper in concentrate after two stages of cleaning with regrinding.

During 2003 a metallurgical scoping test program was completed on four individual composites of drill core selected by NovaGold. The test work was carried out by G&T Laboratories Ltd. in Kelowna, B.C. The drill core from the 2003 drilling campaign, has been identified as holes DDH

437, DDH-438, DDH-441 and DDH-442. The DDH 437 sample is from the Southwest zone while the remainder of the samples are from the Central zone. These samples were selected to investigate the metallurgy of higher-grade mineralization.

The Southwest zone sample was the highest in grade and contained the most pyrite. Chalcopyrite was the dominant copper mineral in all the samples except DDH 441 where bornite occurrence was significant.

High copper and gold recoveries and copper concentrate grades were achieved at relatively coarse primary grinds using standard grinding and flotation procedures and reagents. Rougher concentrates upgraded well following a regrind. The recoveries and concentrate grades were marginally higher than those achieved in the 1966 and 1992 flotation test programs. Copper, gold and silver recoveries attained were of the order of 90%, 70% and 80% respectively for the samples tested. A summary of the 2003 test results is Table 13. Highlights from the previous years' testing are provided in Table 10 through Table 12.

Gravity concentration of ground samples gave variable and low recovery of gold. The gold grains were generally fine, indicating that gravity concentration might not be effective.

The key observations from the 2003 test work specific to the four samples are as follows:

1. The Southwest zone sample from DDH-437 has significantly more pyrite than Central zone samples. This adversely impacted recovery, selectivity and concentrate grade. In practice, this material should be blended with Central zone material.

2. A primary grind at a 80% passing 150 microns nominal is sufficient for copper mineral and gold liberation. A coarser grind of 250 microns decreased copper recovery and grade, but had little effect on gold recovery, likely due to its inherent fine grain.

3. A significant fraction of gold is free and fine-grained despite the relatively coarse grind and floats readily with the copper minerals.

4. Gravity concentration of gold following the primary grind is potentially not favorable since it is readily recovered at flotation. Its potential on cleaner scavenger tailings for incremental gold recovery should be considered in future test work.

5. Copper and gold floated readily within a short rougher flotation time of 5 minutes using simple flotation schemes and standard reagents for copper.

6. Rougher concentrate regrind will likely be required for effective cleaning.

7. It appears that two stages of cleaners would suffice to achieve, nominally, 95% copper and 75% gold recovery at over 30% copper grade.

8. The concentrates are relatively clean. Selenium appears to be the only impurity of concern.

9. The occurrence of gold in these samples as liberated fine-grained particles and its recovery in copper concentrate is typical of porphyry copper deposit and is consistent with studies by Hatch and G&T Metallurgical Services (G&T) on porphyry copper deposits worldwide. G&T's studies have also indicated little incremental recovery of the fine gold by gravity concentration in such deposits.

Table 16.2 - 1965 Metallurgical Testing

Head Assay		Grind		Rougher Flotation		Rougher Conc		Cleaner Flotation		Cleaner Conc	
% Cu	**g/t Au**	**% -100 mesh**	**PH**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**
Locked cycle tests; rougher conc regrind to -200 mesh											
1.06		73.3	9 to 9.5					94.6		23.7	
1.33		88.7						95.8		29.9	
0.79		79.2						91.3		29.6	
1.16		79.1						95.0		32.1	
2.12		79.8						97.4		22.1	
1.16		82.6						96.7	77.1	24.3	11.5
Feed grade vs Cu recovery (locked cycle tests)											
0.79								91.3		23.6	
1.06								94.6		23.7	
1.16								95.0		25.6	
1.22								96.7		24.3	
1.33								95.8		29.9	
1.61								95.9		28.0	
2.12								97.4		22.1	

Table 16.3 - 1966 - 1967 Pilot Plant Test Work

Head Assay		Grind		Rougher Flotation		Rougher Conc		Cleaner Flotation		Cleaner Conc	
% Cu	**g/t Au**	**% -100 mesh**	**PH**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**
Locked cycle tests; rougher conc regrind to -200 mesh											
1.28								***96.1***	63.9	25.2	5.38

Table 16.4 - 1991 Drilling - Bench Tests
Revised flow sheet: finer grind, more reagents, longer flotation times, 2-stage cleaner

Head Assay			Grind		Rougher Flotation		Rougher Conc		Cleaner Flotation		Cleaner Conc	
Zone	**% Cu**	**g/t Au**	**% -100 mesh**	**PH**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**
Locked cycle tests; rougher conc regrind to -200 mesh												
Central	0.82	0.62	93.6	9.5	96.0	60.9	6.6	3.2	70.7	36.4	8.9	3.5
SW	0.63	1.23	90.2	9.8	89.7	52.4	8.8	11.9	81.9	48.5	20.6	28.1
SW	1.78	1.85	90.7	9.4	92.8	75.0	10.3	8.6	78.3	58.9	20.0	15.5
SW	0.33	0.69	90.5	9.4	89.3	43.1	11.3	6.3	84.1	40.1	16.2	16.1

Table 16.5 - 2003 Bench Tests

	Head Assay			Grind	Rougher Flotation			Rougher Conc		Cleaner Flotation		Cleaner Conc	
Cleaner	**Zone**	**% Cu**	**g/t Au**	**% -100 mesh**	**PH**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**	**% Cu Rec.**	**% Au Rec.**	**% Cu**	**g/t Au**
Fine primary grind 160 um													
	SW-437	1.83	3.63		10	95.2	88.4	9.8	18.0				
3-stage										86.9	75.4	22.7	39.0
2-stage										89.1	78.9	20.3	35.5
1-stage										91.4	80.3	17.8	31.0
Fine primary grind 159 um													
	C – 438	1.57	0.47		10	98.8	84.5	17.8	4.58				
3-stage										95.5	71.1	31.4	7.0
2-stage										96.8	74.1	30.6	7.0
1-stage										97.7	76.4	29.0	6.8
Fine primary grind 139 um													
	C - 441	2.21	1.2		10	96.1	81.3	20.6	9.45				
3-stage										89.5	69.0	54.9	22.9
2-stage										91.7	70.9	53.6	22.4
1-stage										94.2	73.4	47.2	19.9
Fine primary grind 144 um													
	C - 442	1.09	0.71		10	98.3	83.0	13.9	7.59				
3-stage										96.5	75.1	33.9	17.0
2-stage										96.9	76.3	33.4	16.9
1-stage										97.5	77.8	31.4	16.1

A further program of mineralogical and metallurgical studies, supervised by Hatch, commenced in late 2004 and will be completed in 2005.

Minnovex Technologies Ltd is evaluating 14 samples for grindability by determining SPI and Bond indexes and provided preliminary recommendations regarding mill sizing. G&T Laboratories Ltd. is conducting a program of modal analysis and flotation testing on composite samples representing various mineralized zones within the property boundaries. The G&T metallurgical work includes flow sheet development using batch flotation tests. Locked cycle tests will then provide accurate assessments of metallurgical performance by composite. Modal analysis will be used to characterize multiple samples from the deposit in terms of mineral compositions and mineral fragmentation characteristics. Concentrates produced in the locked cycle tests were assayed for minor elements which could be of interest to copper smelters.

17. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The Galore Creek project consists of 4 separate mineralized zones namely: Central, Southwest, West Fork and Junction. Each of these zones has been treated as a stand alone deposit for the purpose of resource estimation. This section will outline the procedures used to produce these four separate estimates.

17.1 Central Zone

17.1.1 Data Analysis

NovaGold geologists subdivided the various lithologies present at Galore Creek Central zone into three main domains as follows:

Group 1 - Main Mineralized Zone –Volcanics with some intrusive intervals that were too small to model. (Further subdivided by the East Fault into west of fault (201) and east of fault (202))
Group 2 - I4 Intrusives, I8 Intrusives and some I3 Dykes (further subdivided by the East Fault into west of fault (337) and east of fault (338))
Group 3 – I5, I9, I10 and I11 Intrusives (further subdivided by East Fault into west of the East fault (357) and east of the East fault (358))

Simple statistical parameters for each group are shown below in Table 19.1.1.

Table 17.1.1: Summary of Statistical Parameters for Geologic Domains

Domain	Variable	Number	Mean	S.D.	Minimum	Maximum	Coef. of Var.
Group 1 West (201)	Cu (%)	16,422	0.494	0.706	0.001	12.00	1.43
	Au (g/t)	16,140	0.253	0.803	0.001	35.31	3.16
	Ag (g/t)	16,156	3.88	8.98	0.001	886.0	2.31
Group 1 East (202)	Cu (%)	4,136	0.344	0.458	0.001	3.65	1.33
	Au (g/t)	4,040	0.112	0.241	0.001	6.13	2.16
	Ag (g/t)	4,040	3.02	4.66	0.001	35.01	1.54
Group 2 West (337)	Cu (%)	1,954	0.320	0.513	0.001	4.27	1.60
	Au (g/t)	1,931	0.195	0.687	0.001	21.60	3.52
	Ag (g/t)	1,934	2.61	4.05	0.001	27.80	6.55
Group 2 East (338)	Cu (%)	96	0.311	0.414	0.001	1.76	1.33
	Au (g/t)	96	0.056	0.055	0.001	0.42	1.53
	Ag (g/t)	96	1.84	2.39	0.001	7.20	1.30
Group 3 West (357)	Cu (%)	3.361	0.147	0.359	0.001	5.92	2.44
	Au (g/t)	3,346	0.105	0.357	0.001	10.25	3.38
	Ag (g/t)	3,348	1.47	6.89	0.001	362.0	4.69
Group 3 East (358)	Cu (%)	319	0.065	0.137	0.001	1.03	2.12
	Au (g/t)	318	0.048	0.092	0.001	0.74	1.93
	Ag (g/t)	318	1.15	2.58	0.001	14.74	2.24

The coefficients of variation range between 1.33 and 6.55 indicating a fair degree of variability which is also evident in the maximum values present. Lognormal cumulative probability plots were produced for each variable within each of the six main geologic domains to examine the distributions of grade within each data set and determine if capping is required and if so at what level. In all cases the grade distributions were made up of a series of overlapping lognormal populations. Using the method of partitioning of lognormal cumulative probability plots, each population can be subdivided and evaluated.

Group 1

Group 1 is made up primarily of volcanic rocks, with minor sedimentary units and intrusive units to small to model. The plot for copper shows 5 overlapping lognormal populations with parameters shown in Table 19.1.1A. The upper population 1, representing 0.53 % of the data, has a mean of 4.14 % Cu. This population is not erratic and a reasonable cap would be at 2 standard deviations above the mean of population 1 or a value of 6.90 % Cu. A total of 5 samples were capped at 6.90 % Cu.

Table 17.1.2 Summary of Cu Distribution in Group 1

Population	Mean Cu (%)	Proportion	Number of Samples
1	4.135	0.53 %	109
2	0.983	30.39 %	6,247
3	0.183	42.13 %	8,660
4	0.036	14.01 %	2,880
5	0.010	12.95 %	2,662

The plot for gold shows 6 overlapping lognormal populations with parameters shown in Table 19.1.1B. The upper population 1, representing 0.02 % of the data, has a mean of 28.39 g Au/t. This population can be considered erratic and minimized by capping at 2 standard deviations above the mean of population 2 or a value of 16.59 g Au/t. A total of 5 samples were capped at 16.59 g Au/t.

Table 17.1.3 Summary of Au Distribution in Group 1

Population	Mean Au (g/t)	Proportion	Number of Samples
1	28.39	0.02 %	4
2	10.78	0.12 %	24
3	4.47	0.66 %	133
4	1.28	4.74 %	957
5	0.17	44.45 %	8,970
6	0.018	50.00 %	10,090

The plot for silver shows 3 overlapping lognormal populations with parameters shown in Table 19.1.1C. The upper population 1, representing 0.05 % of the data, has a mean of 53.4 g Ag/t. This population can be considered erratic and minimized by capping at the mean of population 1 or a value of 53.4 g Ag/t. A total of 8 samples were capped at 53.4 g Ag/t.

Table 17.1.4 Summary of Ag Distribution in Group 1

Population	Mean Ag (g/t)	Proportion	Number of Samples
1	53.40	0.05 %	10
2	4.83	53.91 %	10,888
3	0.02	46.03 %	9,296

Group 2

Group 2 is made up of I4 – Dark Orthoclase Syenite, I8 – Syenite and I3 – Grey Syenite Porphyry dykes and sills.

The plot for copper shows 5 overlapping lognormal populations with parameters shown in Table 19.1.1D. The upper population 1, representing 0.40 % of the data, has a mean of 3.8 % Cu. In this case the upper population does not appear to be erratic and as a result a reasonable capping level would be at 2 standard deviations above the mean of population 1 or a value of 4.5 % Cu. No samples required capping.

Table 17.1.5 Summary of Cu Distribution in Group 2

Population	Mean Cu (%)	Proportion	Number of Samples
1	3.833	0.40 %	8
2	0.964	20.78 %	426
3	0.122	54.30 %	1,113
4	0.016	18.40 %	377
5	0.004	6.12 %	126

The plot for gold shows 6 overlapping lognormal populations with parameters shown in Table 19.1.1E. The upper 2 population (1 & 2) representing a combined 0.39 % of the data, have mean grades of 14.48 and 4.75 g Au/t respectively. These two populations representing only a combined 8 samples can be considered erratic and minimized by capping at 2 standard deviations above the mean of population 3 or a value of 3.85 g Au/t. A total of 8 samples were capped at 3.85 g Au/t.

Table 17.1.6 Summary of Au Distribution in Group 2

Population	Mean Au (g/t)	Proportion	Number of Samples
1	14.48	0.14 %	3
2	4.752	0.25 %	5
3	1.801	1.66 %	34
4	0.311	27.70 %	560
5	0.034	60.76 %	1,227
6	0.003	9.48 %	191

The plot for silver shows 4 overlapping lognormal populations with parameters shown in Table 19.1.1F. The upper population 1, representing 1.10 % of the data, has a mean of 31.48 g Ag/t. No capping is required for silver in Group 2.

Table 17.1.7 Summary of Ag Distribution in Group 2

Population	Mean Ag (g/t)	Proportion	Number of Samples
1	31.48	1.10 %	22
2	7.44	19.68 %	398
3	0.31	29.22 %	591
4	0.036	50.00 %	1,012

Group 3

Group 3 is made up of I5 – Fine Grained Orthoclase Syenite Megaporphyry, I9 – Medium Grained Orthoclase Syenite Megaporphyry, I10 – Plagioclase Syenite Porphyry and I11 – Syenite Porphyry.

The plot for copper shows 5 overlapping lognormal populations with parameters shown in Table 19.1.1G. The upper population 1, representing 0.28 % of the data, has a mean of 3.85 % Cu. In this case the upper population does not appear to be erratic and as a result a reasonable capping level would be at 2 standard deviations above the mean of population 1 or a value of 6.1 % Cu. No samples required capping.

Table 17.1.8 Summary of Cu Distribution in Group 3

Population	Mean Cu (%)	Proportion	Number of Samples
1	3.853	0.28 %	10
2	1.242	4.21 %	155
3	0.226	18.33 %	675
4	0.038	64.00 %	2,355
5	0.002	13.19 %	485

The plot for gold shows 5 overlapping lognormal populations with parameters shown in Table 19.1.1H. The upper population 1 representing 0.26 % of the data, has a mean grade of 3.6 g Au/t. This population can be considered erratic and minimized by capping at 2 standard deviations above the mean of population 2 or a value of 4.0 g Au/t. A total of 5 samples were capped at 4.0 g Au/t.

Table 17.1.9 Summary of Au Distribution in Group 3

Population	Mean Au (g/t)	Proportion	Number of Samples
1	3.595	0.26 %	10
2	2.300	0.54 %	20
3	0.694	1.61 %	59
4	0.194	17.45 %	639
5	0.018	80.14 %	2,936

The plot for silver shows 4 overlapping lognormal populations with parameters shown in Table 19.1.1I. The upper population 1, representing 6.97 % of the data, has a mean of 6.95 g Ag/t. A reasonable capping level would be 2 standard deviations above the mean of population 1, a level of 27.72 g Ag/t. A total of 4 samples were capped at 27.72 g Ag/t.

Table 17.1.10 Summary of Ag Distribution in Group 3

Population	Mean Ag (g/t)	Proportion	Number of Samples
1	6.95	6.97 %	256
2	2.43	19.43 %	712
3	0.51	23.60 %	865
4	0.01	50.00 %	1,833

The capping information is summarized in Table 17.1.11.

Table 17.1.11 Summary of Capping Levels

Domain	Variable	Capping Level	Number Capped
Group 1	Cu (%)	6.90 % Cu	5
	Au (g/t)	16.59 g Au/t	5
	Ag (g/t)	53.4 g Ag/t	8
Group 2	Cu (%)	None Capped	
	Au (g/t)	3.85 g Au/t	8
	Ag (g/t)	None Capped	
Group 3	Cu (%)	None Capped	
	Au (g/t)	4.0 g Au/t	5
	Ag (g/t)	27.72 g Ag/t	4

17.1.2 Composites

Drill holes within the Central zone were "passed through" the geologic solids with the point each entered and left each solid recorded. Uniform down-hole 5 meter (m) composites were produced that honored the domain boundaries. Intervals at the boundary of solids were combined with adjoining composites if less than 2.5 m and left as is if greater or equal to 2.5 m. In this manner the composites formed a uniform support of 5± 2.5 m. The statistics for composites are summarized in Table 19.1.2. The combination of capping and smoothing over 5 m has reduced all coefficients of variation to below 2.88.

Table 17.1.12 Summary of Statistical Parameters for 5 m Composites

Domain	Variable	Number	Mean	S.D.	Minimum	Maximum	Coef. of Var.
Group 1 West (201)	Cu (%)	11,111	0.416	0.624	0.001	6.46	1.50
	Au (g/t)	11,049	0.207	0.594	0.001	16.59	2.88
	Ag (g/t)	11,053	3.17	4.92	0.001	49.37	1.55
Group 1 East (202)	Cu (%)	2,693	0.303	0.410	0.001	3.13	1.35
	Au (g/t)	2,669	0.099	0.192	0.001	3.70	1.94
	Ag (g/t)	2,669	2.61	4.22	0.001	29.65	1.62
Group 2 West (337)	Cu (%)	1,191	0.309	0.472	0.001	3.62	1.53
	Au (g/t)	1,188	0.170	0.358	0.001	3.85	2.10
	Ag (g/t)	1,189	2.50	3.83	0.001	26.40	1.53

Group 2 East (338)	Cu (%)	56	0.318	0.381	0.001	1.38	1.20
	Au (g/t)	55	0.057	0.082	0.001	0.35	1.44
	Ag (g/t)	55	1.89	2.37	0.001	6.86	1.26
Group 3 West (357)	Cu (%)	2,158	0.123	0.295	0.001	4.73	2.39
	Au (g/t)	2,156	0.081	0.198	0.001	4.00	2.46
	Ag (g/t)	2,156	1.14	2.50	0.001	25.47	2.20
Group 3 East (358)	Cu (%)	285	0.043	0.104	0.001	0.85	2.43
	Au (g/t)	285	0.032	0.061	0.001	0.38	1.92
	Ag (g/t)	285	0.74	1.98	0.001	13.71	2.68

17.1.3 Variography

Pair wise relative semivariograms were produced for each variable in Group 1 east and west of the East Fault, in Group 2 west of the East Fault and in Group 3 west of the East Fault. There was insufficient data to model variography east of the East Fault in Groups 2 and 3 and the models generated west of the fault were used. Models were generated in the vertical direction and in 4 main directions within the horizontal plane (Az. 90, 0, 45 and 135). Anisotropic nested models were fit to the data in all but Group 3 silver where an omni-directional spherical nested model was fit. The parameters for all models are shown below in Table 19.1.3.

Table 17.1.13: Parameters for semivariogram models at Galore Creek Central Zone

Domain	Variable	Direction	C0	C1	C2	Range a1 (m)	Range a2 (m)
Group 1 Volcanics West of Fault (201)	Cu	Az. 30^o Dip 0	0.20	0.25	0.45	30	200
		Az. 300^o Dip -45	0.20	0.25	0.45	40	100
		Az. 120^o Dip -45	0.20	0.25	0.45	60	100
	Au	Az. 45^o Dip 0	0.10	0.40	0.50	20	200
		Az. 315^o Dip 0	0.10	0.40	0.50	20	120
		Az. 0^o Dip -90	0.10	0.40	0.50	30	120
	Ag	Az. 45^o Dip 0	0.10	0.45	0.65	20	120
		Az. 315^o Dip 0	0.10	0.45	0.65	20	60
		Az. 0^o Dip -90	0.10	0.45	0.65	30	200
Group 1 Volcanics East of Fault (202)	Cu	Az. 30^o Dip 0	0.10	0.30	0.42	40	130
		Az. 300^o Dip -45	0.10	0.30	0.42	40	150
		Az.120^o Dip -45	0.10	0.30	0.42	40	90
	Au	Az. 90^o Dip 0	0.15	0.25	0.40	50	70
		Az. 0^o Dip 0	0.15	0.25	0.40	20	60
		Az. 0^o Dip -90	0.15	0.25	0.40	40	100

	Ag	Az. 90° Dip 0	0.05	0.30	0.75	40	80
		Az. 0 ° Dip 0	0.05	0.30	0.75	10	20
		Az. 0 ° Dip -90	0.05	0.30	0.75	20	120
Group 2 Intrusives I4, I8, I3 West of Fault (337)	Cu	Az. 0 ° Dip 0	0.10	0.30	0.60	15	100
		Az. 270 ° Dip 0	0.10	0.30	0.60	20	50
		Az. 0 ° Dip -90	0.10	0.30	0.60	50	150
	Au	Az. 135 ° Dip 0	0.20	0.35	0.55	40	150
		Az. 45 ° Dip 0	0.20	0.35	0.55	35	100
		Az. 0 ° Dip -90	0.20	0.35	0.55	60	110
	Ag	Az. 135 ° Dip 0	0.10	0.60	0.70	20	100
		Az. 45 ° Dip 0	0.10	0.60	0.70	40	60
		Az. 0 ° Dip -90	0.10	0.60	0.70	90	200
Group 3 Intrusives I5, i9, i10, i11 West of Fault (357)	Cu	Az. 90° Dip 0	0.10	0.40	0.50	20	40
		Az. 0 ° Dip 0	0.10	0.40	0.50	20	40
		Az. 0 ° Dip -90	0.10	0.40	0.50	20	80
	Au	Az. 135 ° Dip 0	0.20	0.40	0.50	50	160
		Az. 45 ° Dip 0	0.20	0.40	0.50	30	120
		Az. 0 ° Dip -90	0.20	0.40	0.50	70	120
	Ag	Omnidirectional	0.05	0.30	0.85	40	60

17.1.4 Geologic Block Model

A block model of 25 x 25 x 15 m blocks was superimposed on the geologic 3-D solids. The origin and parameters of the general Galore Creek block model, within which the Central deposit lies, were as follows:

Lower left corner	Easting	-	48000 E	25 m block	240 columns
	Northing	-	32000 N	25 m block	240 rows
Top Level	Elevation	-	1605	15 m block	107 levels

No Rotation

For each block the following information was recorded:

- Percentage of block below topography
- Percentage of block below bedrock

- Percentage of block below the broken/stick surface
- The most prevalent solid percentage was stored as OREPC1
- The second most prevalent solid percentage was stored as OREPC2

17.1.5 Bulk Density

A total of 563 specific gravity measurements were made on the total Galore Creek property during the 1966-67 drill campaign by measuring the weight of the sample and dividing by the amount of water it displaced. In April 1992 a total of 96 specific gravity determinations were made from drill core. During the 2003-2004 drill programs a further 30 specific gravity determinations were made. The SG determinations were made from small pieces of core at recorded distances down the hole. Using these distances the specific gravity values were joined to the assay from-to intervals that contained them. In a number of instances more than one SG determination was made on the same from-to interval. In these cases the SG values were averaged. As a result 631 assays had specific gravity determinations, across the total property. The specific gravity information can be sorted a number of ways. Table 19.1.5 shows average values for the various lithologies coded.

Table 17.1.14 Summary of Specific Gravity Measurements – Central Zone

	VOLC	INTR	BREC	DYKE	SEDS	FAUL
Number	435	140	8	7	5	3
Mean S.G.	2.67	2.63	2.71	2.67	2.59	2.59
S.D.	0.182	0.156	0.095	0.077	0.066	0.114
Minimum	1.69	1.91	2.56	2.50	2.34	2.43
Maximum	3.40	3.30	2.86	2.76	3.04	2.69

For this resource estimation Group 1 was assigned the average specific gravity of volcanic rocks or 2.67 while Group 2 and Group 3 were made up of intrusive rocks with an average specific gravity of 2.63. These values were used for blocks below the broken/stick rock surface. Material above this boundary was severely broken and as a result a general 5% reduction in specific gravity was applied. Blocks completely above the surface were given a specific gravity of 2.54 in Group 1 domains and 2.50 in Group 2 and 3 domains. Blocks straddling the boundary were given a weighted average specific gravity based on the percentage of volume above and below the broken rock surface.

17.1.6 Block Interpolation

Ordinary kriging was completed in 3 passes for each variable in each domain. A minimum 4 and maximum 16 composites were used for each pass. The search ellipse was expanded for each pass, starting at ¼ the ranges in each direction for pass 1, to 2/3 in pass 2 and finally to the full ranges in pass 3. The kriging process was completed in the following order.

- All blocks with some proportion below the bedrock surface and proportion of primary solid (OREPC1) greater than 0.0 were estimated for each variable in separate runs using the appropriate composites for Domains with 3 separate passes in each run. Results to Cu1, Au1 and Ag1 fields.

- All blocks with some proportion below bedrock and proportion of OREPC2 (BDRK – PCORE1) > 0.0 were estimated for each variable using appropriate composites with 3 separate passes. Results to Cu2, Au2 and Ag2 fields.
- The grades were then combined to form weighted averages for each block based on the proportion of each domain in the block.
- SG used was 2.67 for the volcanics (Group 1) for unbroken or stick rock and 5 % less or 2.54 for broken rock. Within the intrusives (Groups 2 and 3) a value of 2.63 was used for stick rock and 2.50 for broken rock. Blocks containing both were adjusted to form a weighted average based on proportions of domains and of stick and broken rock present.
- Copper equivalent was estimated using the following procedure:

  Copper price of US$ 0.90/lb.
  Copper Recovery = (%Cu-0.06)/%Cu with a minimum of 50 % and maximum of 95 %
  Gold price of US$ 375/oz
  Gold Recovery = (Au g/t–0.14)/Au g/t with a minimum of 30 % and maximum of 80 %
  Silver price of US$ 5.50/oz
  Silver Recovery = 80 %

17.1.7 Classification

Introduction

Based on the study herein reported, delineated mineralization of the Galore Creek Central zone is classified as a resource according to the following definition from National Instrument 43-101.

> "*In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by CIM Council on August 20, 2000, as those definitions may be amended from time to time by the Canadian Institute of Mining, Metallurgy, and Petroleum."*

> *"A **Mineral Resource** is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge."*

The terms Measured, Indicated and Inferred are defined in NI 43-101 as follows:

> *"A **'Measured Mineral Resource'** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing*

information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity."

*"An '**Indicated Mineral Resource**' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed."*

*"An '**Inferred Mineral Resource**' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes."*

Results

Geologic continuity on the Central zone has been established through surface mapping and diamond drilling over a number of years. Grade continuity has been measured through the use of semivariograms. Using the ranges from the semivariograms for both copper and gold, a classification scheme was devised for the Central zone.

Measured-	Blocks estimated in Pass 1 (using ¼ of the semivariogram ranges) for both Cu and Au.
Indicated-	Blocks not classified and estimated in at least pass 2 (using 2/3 of the semivariogram ranges) for both Cu and Au.
Inferred-	All other blocks estimated. In addition all blocks below the 200 m elevation were assigned Inferred status irregardless of when they were estimated.

The results are presented at a range of CuEq cutoffs in Tables included as Appendix 3, as at this time no economic evaluation has been completed. Tables 19.1.7 and 19.1.7A shown below summarizes the results for three particular cutoffs.

Table 17.1.15 GRADE-TONNAGE FOR CENTRAL ZONE CLASSED MEASURED PLUS INDICATED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
0.35	423,900,000	0.614	0.302	4.681	0.780	5739.05	4.12	63.80
0.50	290,100,000	0.738	0.376	5.421	0.947	4720.77	3.51	50.56
1.00	90,100,000	1.100	0.724	7.257	1.511	2185.38	2.10	21.02

Table 17.1.5.1 GRADE-TONNAGE FOR CENTRAL ZONE CLASSED INFERRED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
0.35	173,600,000	0.467	0.283	3.425	0.623	1787.62	1.58	19.12
0.50	96,000,000	0.576	0.380	4.085	0.790	1219.28	1.17	12.61
1.00	18,200,000	0.781	0.929	5.193	1.312	313.42	0.54	3.04

17.1.8 Inverse Distance Squared Test

As a test of the interpolation procedure, a second run was made using inversed distance squared (IDS). The same elliptical search parameters, used for kriging, were used for the IDS run. The minimum 4 and maximum 16 composite limits were used. As with kriging, the various domains were estimated in a series of passes with expanding search ellipses. The results are presented as grade-tonnage tables in Appendix 3 for the classification categories of measured plus indicated, and inferred.

The results are very similar with differences occurring due to the weighting techniques employed by the different interpolation methods.

17.2 Southwest Zone

17.2.1 Data Analysis

NovaGold geologists subdivided the various lithologies present at Galore Creek Southwest zone into two main domains as follows:

Group 352 – I9 (Medium Grained Orthoclase Syenite Megaporphyry)
Group 400 – SW Breccia

Simple statistical parameters for each group are shown below in Table 19.2.1.

Table 17.2.1: Summary of Statistical Parameters for Geologic Domains

Domain	Variable	Number	Mean	S.D.	Minimum	Maximum	Coef. of Var.
Group 352	Cu (%)	1,171	0.223	0.402	0.001	3.23	1.80
	Au (g/t)	1,171	0.322	0.730	0.001	12.00	2.27
	Ag (g/t)	1,171	1.417	2.615	0.001	65.20	1.84
Group 400	Cu (%)	1,792	0.310	0.621	0.001	7.02	2.00
	Au (g/t)	1,792	0.668	1.870	0.001	40.80	2.80
	Ag (g/t)	1,792	3.10	6.28	0.001	135.00	2.03

The coefficients of variation range between 1.80 and 2.8 indicating a fair degree of variability, which is also evident in the maximum values present.

Lognormal cumulative probability plots were produced for each variable within each of the twp main geologic domains to examine the distributions of grade within each data set and determine if capping is required and if so at what level. In all cases the grade distributions were made up of a series of overlapping lognormal populations. Using the method of partitioning of lognormal cumulative probability plots, each population can be subdivided and evaluated.

Group 352

Group 352 is made up primarily of unit I9 - Medium Grained Orthoclase Syenite Megaporphyry. The plot for copper shows 5 overlapping lognormal populations with parameters shown in Table 19.2.1A . The upper population 1, representing 2.67 % of the data, has a mean of 2.2 % Cu. This population is not erratic and a reasonable cap would be at 2 standard deviations above the mean of population 1 or a value of 3.57 % Cu. No copper samples required capping.

Table 17.2.1.1 Summary of Cu Distribution in Group 352

Population	Mean Cu (%)	Proportion	Number of Samples
1	2.197	2.67 %	31
2	0.867	5.93 %	69
3	0.231	33.74 %	396
4	0.050	42.62 %	499
5	0.005	15.04 %	176

The plot for gold shows 5 overlapping lognormal populations with parameters shown in Table 19.2.1B. The upper population 1, representing 1.02 % of the data, has a mean of 5.01 g Au/t. This population can be considered erratic and minimized by capping at 2 standard deviations above the mean of population 2 or a value of 4.30 g Au/t. A total of 8 samples were capped at 4.3 g Au/t.

Table 17.2.1.2 Summary of Au Distribution in Group 352

Population	Mean Au (g/t)	Proportion	Number of Samples
1	5.01	1.02 %	12
2	2.15	2.20 %	26
3	0.93	4.15 %	49
4	0.22	52.97 %	620
5	0.01	39.66 %	464

The plot for silver shows 3 overlapping lognormal populations with parameters shown in Table 19.2.1C. The upper population 1, representing 4.6 % of the data, has a mean of 7.30 g Ag/t. This population is not considered erratic and a reasonable cap would be at 2 standard deviations above the mean of population 1 or a value of 11.85 g Ag/t. A total of 2 samples were capped at 11.85 g Ag/t.

Table 17.2.1.3 Summary of Ag Distribution in Group 352

Population	Mean Ag (g/t)	Proportion	Number of Samples
1	7.30	4.62 %	54
2	1.39	60.42 %	708
3	0.03	34.96 %	409

Group 400

Group 400 is made up of Breccia units.

The plot for copper shows 5 overlapping lognormal populations with parameters shown in Table 19.2.1D. The upper population 1, representing 0.40 % of the data, has a mean of 2.6 % Cu. In this case the upper population does not appear to be erratic and as a result a reasonable capping level would be at 2 standard deviations above the mean of population 1 or a value of 4.8 % Cu. One sample required capping at 4.8 % Cu.

Table 17.2.1.4 Summary of Cu Distribution in Group 400

Population	Mean Cu (%)	Proportion	Number of Samples
1	2.59	3.87 %	69
2	1.07	12.16 %	218
3	0.09	59.89 %	1073
4	0.01	15.91 %	285
5	0.004	8.18 %	147

The plot for gold shows 5 overlapping lognormal populations with parameters shown in Table 19.2.1E. The upper population (1) representing 0.33 % of the data has mean grades of 19.16 g Au/t. This population can be considered erratic and minimized by capping at 2 standard deviations above the mean of population 2 or a value of 15.7 g Au/t. A total of 4 samples were capped at 15.70 g Au/t.

Table 17.2.1.5 Summary of Au Distribution in Group 400

Population	Mean Au (g/t)	Proportion	Number of Samples
1	19.16	0.33 %	6
2	7.86	1.60 %	29
3	1.87	12.80 %	229
4	0.19	71.49 %	1281
5	0.02	13.79 %	247

The plot for silver shows 4 overlapping lognormal populations with parameters shown in Table 19.2.1F. The upper population 1, representing 1.23 % of the data, has a mean of 33.74 g Ag/t. A reasonable cap would be at two standard deviations above the mean of population 1, a value of 79.42 g Ag/t. Two samples were capped at 79.42 g Ag/t.

Table 17.2.1.6 Summary of Ag Distribution in Group 400

Population	Mean Ag (g/t)	Proportion	Number of Samples
1	33.74	1.23 %	22
2	9.99	8.75 %	157
3	1.72	75.93 %	1361
4	0.13	14.09 %	252

17.2.2 Composites

Drill holes within the Southwest zone were "passed through" the geologic solids with the point each entered and left each solid recorded. Uniform down hole 5 m composites were produced that honored the domain boundaries. Intervals at the boundary of solids were combined with adjoining composites if less than 2.5 m and left as is if greater or equal to 2.5 m. In this manner the composites formed a uniform support of 5± 2.5 m. The statistics for composites are summarized in Table 19.2.2. The combination of capping and smoothing over 5 m has reduced all coefficients of variation.

Table 17.2.2 Summary of Statistical Parameters for 5 m Composites

Domain	Variable	Number	Mean	S.D.	Minimum	Maximum	Coef. of Var.
Group 352 I9	Cu (%)	731	0.202	0.343	0.001	2.57	1.70
	Au (g/t)	731	0.276	0.476	0.001	4.22	1.73
	Ag (g/t)	731	1.23	1.67	0.001	8.93	1.36
Group 400 Breccia	Cu (%)	939	0.286	0.550	0.001	4.24	1.92
	Au (g/t)	939	0.615	1.357	0.001	12.05	2.20
	Ag (g/t)	939	2.93	4.24	0.001	42.16	1.45

17.2.3 Variography

Pair-wise relative semivariograms were produced for each variable in I9 and Southwest Breccia zones. Models were generated in the vertical direction and in 4 main directions within the horizontal plane (Az. 90, 0, 45 and 135). Based on these results other directions in the horizontal plane were investigated until the direction of maximum continuity was established. The vertical plane perpendicular to the maximum horizontal direction was then tested. Anisotropic nested models were fit to the data in both domains for copper and gold. Silver data, in both domains, was very hard to model and an omnidirectional spherical nested model was used. The parameters for all models are shown below in Table 19.2.3.

Table 17.2.3: Parameters for semivariogram models at Galore Creek Southwest Zone

Domain	Variable	Direction	C0	C1	C2	Range a1 (m)	Range a2 (m)
Group 352 I9	Cu	Az. 55° Dip 0	0.20	0.10	0.40	40	90
		Az. 325 ° Dip –65	0.20	0.10	0.40	60	150
		Az. 145 ° Dip –25	0.20	0.10	0.40	20	40
	Au	Az. 70° Dip 0	0.10	0.45	0.45	25	180
		Az. 340 ° Dip –80	0.10	0.45	0.45	30	160
		Az. 160 ° Dip –10	0.10	0.45	0.45	20	40
	Ag	Omnidirectional	0.10	0.30	0.40	30	120
Group 400 Breccia	Cu	Az. 135° Dip 0	0.20	0.10	0.35	20	100
		Az. 45 ° Dip 0	0.20	0.10	0.35	10	30
		Az.0 ° Dip –90	0.20	0.10	0.35	25	100
	Au	Az.135° Dip 0	0.20	0.20	0.40	20	100
		Az. 45 ° Dip 0	0.20	0.20	0.40	20	40
		Az. 0 ° Dip –90	0.20	0.20	0.40	20	150
	Ag	Omnidirectional	0.15	0.20	0.35	30	120

17.2.4 Geologic Block Model

A block model of 25 x 25 x 15 m blocks was superimposed on the geologic 3-D solids. The origin and parameters of the general Galore Creek block model, within which the Southwest zone lies, were as follows:

Lower left corner	Easting	-	48000 E	25 m block	240 columns
	Northing	-	32000 N	25 m block	240 rows
Top Level	Elevation	-	1605	15 m block	107 levels

No Rotation

For each block the following information was recorded:

- Percentage of block below topography
- Percentage of block below bedrock
- Percentage of block below the broken/stick surface
- The breccia solid was coded first if any proportion was within a block to OREPC1
- Next the I9 solid proportion in empty blocks was stored as OREPC1
- Finally in blocks containing some, but less than 100 % Breccia, the percentage of Solid 352 was stored as OREPC2

17.2.5 Bulk Density

A total of 563 specific gravity measurements were made on the total Galore Creek property during the 1966-67 drill campaign by measuring the weight of the sample and dividing by the amount of water it displaced. In April 1992 a total of 96 specific gravity determinations were made from drill core. During the 2003-2004 drill programs a further 30 specific gravity determinations were made. The SG determinations were made from small pieces of core at recorded distances down the hole. Using these distances the specific gravity values were joined to the assay from-to intervals that contained them. In a number of instances more than one SG determination was made on the same from-to interval. In these cases the SG values were averaged. As a result 631 assays had specific gravity determinations, across the total property.

For the Southwest deposit, I9 unit the average specific gravity of 129 measurements for I9 or 2.63 was used. On the entire Galore Creek property a total of 39 samples were measured in Breccia with an average specific gravity of 2.68. These values were used for blocks below the broken/stick rock surface. Material above this boundary was severely broken and as a result a general 5% reduction in specific gravity was applied. Blocks completely above the surface were given a specific gravity of 2.50 in the I9 domain and 2.55 in Breccia. Blocks straddling the boundary were given a weighted average specific gravity based on the percentage of volume above and below the broken rock surface.

17.2.6 Block Interpolation

Ordinary kriging was completed in 4 passes for each variable in each domain. A minimum 4 and maximum 16 composites were used for each pass. The search ellipse was expanded for each pass, starting at ¼ the ranges in each direction for pass 1, to 2/3 in pass 2, to the full ranges in pass 3 and finally twice the range in pass 4. As the transition of grades across the I9 – Breccia boundary was gradual this boundary was considered “soft” with composites allowed to influence blocks on either side.

The kriging process was completed in the following order.

- All blocks with some proportion below the bedrock surface and proportion of primary solid (OREPC1) greater than 0.0 were estimated for each variable in separate runs using 4 separate passes in each run. Results to Cu1, Au1 and Ag1 fields.
- All blocks with some proportion below bedrock and proportion of OREPC2 > 0.0 were estimated for each variable using appropriate composites with 4 separate passes. Results to Cu2, Au2 and Ag2 fields.

- Grades were then combined to form weighted averages for each block based on the proportion of each domain in the block.
- SG used was 2.63 in the I9 Domain for unbroken or stick rock and 5 % less or 2.50 for broken rock. Within the Breccia Domain a value of 2.68 was used for stick rock and 2.55 for broken rock. Blocks containing both were adjusted to form a weighted average based on proportions domains and of stick and broken rock present.
- Copper equivalent was estimated using the following procedure:

  Copper price of US$ 0.90/lb.
  Copper Recovery = (%Cu-0.06)/%Cu with a minimum of 50 % and maximum of 95 %
  Gold price of US$ 375/oz
  Gold Recovery = (Au g/t–0.14)/Au g/t with a minimum of 30 % and maximum of 80 %
  Silver price of US$ 5.50/oz
  Silver Recovery = 80 %

17.2.7 Classification

Based on the study herein reported, delineated mineralization of the Galore Creek Southwest zone is classified as a resource according to the following definition from National Instrument 43-101.

Geologic continuity on the Southwest zone has been established through surface mapping and diamond drilling over a number of years. Grade continuity has been measured through the use of semivariograms. Using the ranges from the semivariograms for both copper and gold, a classification scheme was devised for the Southwest zone.

Measured	- Blocks estimated in Pass 1 (using ¼ of the semivariogram ranges) for both Cu and Au.
Indicated	- Blocks not classified and estimated in at least pass 2 (using 2/3 of the semivariogram ranges) for both Cu and Au.
Inferred	- All other blocks estimated.

The results have been presented at a range of CuEq cutoffs in Appendix 3 as at this time no economic evaluation has been completed. A summary for three CuEq cutoffs is presented below.

Table 17.2.4 GRADE-TONNAGE FOR SOUTHWEST ZONE CLASSED MEASURED PLUS INDICATED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.35	47,700,000	0.447	0.818	3.041	0.972	470.15	1.25	4.66
0.50	34,100,000	0.553	1.005	3.523	1.194	415.80	1.10	3.86
1.00	16,100,000	0.843	1.477	4.787	1.738	299.27	0.76	2.48

Table 17.2.4.1 GRADE-TONNAGE FOR SOUTHWEST ZONE CLASSED INFERRED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)	Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
0.35	122,900,000	0.314	0.556	2.274	0.695	850.92	2.20	8.99
0.50	72,100,000	0.407	0.706	2.617	0.895	647.05	1.64	6.07
1.00	18,400,000	0.714	1.092	3.245	1.445	289.68	0.65	1.92

17.3 Junction Zone

17.3.1 Data Analysis

A total of 55 drill holes were provided for analysis containing 248 down hole survey measurements and 4,645 assays. Lithology codes were provided as shown in Appendix 2. A total of 132 possible lithology codes have been devised for the Galore Creek project. These codes for lithologies present at Junction have been simplified to the following list.

Sediments (Code 160)
Volcanics V3 (Code 230)
Volcanics V4, V4F, V4H, V5, V5A,V5D,V5H V5h (Codes 240-258)
Intrusives I, I5, I9, I9B, I6, I8 (Codes 300 – 362)
Syenite (Codes 352-355)
Junction Porphyry (Codes 367-368)
Breccia (Codes 400-430)
Dykes (Codes 510-540)

At Junction drilling has been completed in several campaigns by different property operators. There were many ambiguities within the supplied data base with 0.000 values and -2.00 values for Cu, Au and Ag. As a result, each drill hole was examined using drill logs to determine the following:

- Overburden or ice – assays were not taken and values set to blanks
- Areas of no core recovery – assays not taken and value set to blank
- Areas of post mineral dykes – assays not taken and value set to 0.001
- Areas with Cu assay but no gold or silver – early drill holes were reassessed in later programs and gold and silver assays were taken where there was sufficient drill core left. Samples with insufficient core for gold or silver assay were set to blank.
- Assays with 0.000 represented below detection value and were set to 0.001.
  As a result of this audit a total of 4,510 samples had copper assays while 3,954 had gold assays. Statistics for Cu, Au and Ag within these groups are shown below in Table 19.3.1 for North Junction and in Table 19.3.1A for South Junction.

Table 17.3.1: Summary of Statistics for Cu, Au and Ag in North Junction drill hole samples sorted by Lithology

Cu % Codes	Sediments 160	V3 Volcanics 230	Volcanics 240-258	Intrusives 300-351 361-362	Syenite 352-355	Junction Porphyry 367-368	Breccia 400-430	Dykes 510-540
Number	43	66	1443	528	305	298	25	288
Mean	0.041	1.54	0.567	0.234	0.183	0.515	0.303	0.218
S.D.	0.039	1.49	1.034	0.531	0.466	1.00	0.566	0.558
Min.	0.010	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Max.	0.230	6.05	8.88	4.83	3.66	7.25	2.70	4.28
C.V.	0.93	0.97	1.82	2.27	2.55	1.95	1.87	2.56

Au (g/t) Codes	Sediments 160	V3 Volcanics 230	Volcanics 240-258	Intrusives 300-351 361-362	Syenite 352-355	Junction Porphyry 367-368	Breccia 400-430	Dykes 510-540
Number	43	66	1443	528	305	298	25	288
Mean	0.019	0.805	0.232	0.141	0.124	0.428	0.186	0.088
S.D.	0.017	1.039	0.569	0.428	0.193	1.231	0.309	0.195
Min.	0.001	0.001	0.001	0.001	0.001	0.001	0.010	0.001
Max.	0.230	5.290	7.16	6.71	37.82	7.37	1.12	1.03
C.V.	0.92	1.29	2.46	3.03	1.56	2.88	1.66	2.22

Ag (g/t) Codes	Sediments 160	V3 Volcanics 230	Volcanics 240-258	Intrusives 300-351 361-362	Syenite 352-355	Junction Porphyry 367-368	Breccia 400-430	Dykes 510-540
Number	43	66	1443	528	305	298	25	288
Mean	0.368	13.78	2.86	1.463	1.75	5.51	1.82	1.78
S.D.	0.484	14.70	6.41	3.571	5.18	10.72	2.04	5.05
Min.	0.001	0.001	0.001	0.001	0.001	0.001	0.03	0.001
Max.	2.500	59.20	45.63	32.67	37.82	30.86	8.80	31.00
C.V.	1.32	1.07	2.24	2.44	2.95	1.95	1.12	2.83

Table 17.3.1.1 Summary of Statistics for Cu, Au and Ag in South Junction drill hole samples sorted by Lithology

Cu % Codes	Volcanics 240-258	Junction Porphyry 367	Intrusives 300-362 371-390	Breccia 400	Dykes 520-540
Number	659	147	489	72	60
Mean	0.284	0.161	0.188	0.263	0.106
S.D.	0.419	0.168	0.259	0.282	0.229
Min.	0.001	0.001	0.001	0.040	0.001
Max.	3.88	0.990	1.89	1.55	1.61
C.V.	1.47	1.04	1.37	1.07	2.17

Au (g/t) Codes	Volcanics 240-258	Junction Porphyry 367	Intrusives 300-362 371-390	Breccia 400	Dykes 520-540
Number	659	147	489	72	60
Mean	0.151	0.056	0.129	0.251	0.081
S.D.	0.629	0.067	0.258	0.254	0.110
Min.	0.001	0.001	0.001	0.010	0.001
Max.	10.88	0.350	2.15	0.690	0.34
C.V.	4.16	1.19	1.99	1.01	1.36

Ag (g/t) Codes	Volcanics 240-258	Junction Porphyry 367	Intrusives 300-362 371-390	Breccia 400	Dykes 520-540
Number	659	147	489	72	60
Mean	1.54	0.537	0.947	0.575	1.03
S.D.	2.42	1.56	1.19	1.001	1.30
Min.	0.001	0.001	0.001	0.030	0.001
Max.	20.10	13.71	6.20	2.74	5.50
C.V.	1.57	2.89	1.26	1.74	1.26

Geologic modeling did not allow for such a detailed lithological interpretation. Instead, lithologies were combined to form two mineralized zones separated by a sill in North Junction (called North Junction Upper and Lower) and a single mineralized zone in South Junction. The North and South junction solids are separated by a small septum of waste.

Individual drill holes were compared to these three solids with the point at which drill hole entered and left each solid recorded. Based on these intervals individual assays were tagged with the solid designation. Lognormal cumulative probability plots were produced for copper and gold within each of the three domains. Individual overlapping populations for each variable within each domain were determined and used to cap erratic high values if present.

Table 17.3.1.2 Capping levels sorted by Domain

Variable	North Junction Upper			North Junction Lower			South Junction		
	Cap	Level	# Capped	Cap	Level	# Capped	Cap	Level	# Capped
Cu %	2/2	1.29	3	2/1	6.24	0	2/2	2.50	1
Au (g/t)	2/1	2.23	0	2/1	8.90	0	2/1	1.07	2
Ag (g/t)	No capping required								

Where 2/1 – 2 Standard Deviations above the mean of population 1
2/2 – 2 Standard Deviations above the mean of population 2

17.3.2 Composites

A reasonable mining bench at this stage of exploration would be 15 m. Assays within mineralized intervals were taken over a variety of sample lengths from 0.1 m to 12 m intervals with the most 54 % (2,518 out of the 4,645 samples with assays) taken at 3± .3 m intervals. For this estimate a 5 m composite length was chosen to best reflect mining selection and minimize excess smoothing down the hole.

Drill holes were "passed through" the 3D geologic solid models with the point the hole entered and left a solid recorded. Uniform down-hole 5 m composites were produced for Cu, Au and Ag that honored the boundaries of the solid models. Composites less than 2.5 m found at the boundaries were joined to adjacent samples to produce a uniform support of 5 ± 2.5 m lengths.

Table 17.3.2 Summary of statistics for 5 m Composites within Domains

	South Junction Domain			North Upper Domain			North Lower Domain		
	Cu (%)	Au (g/t)	Ag (g/t)	Cu (%)	Au (g/t)	Ag (g/t)	Cu (%)	Au (g/t)	Ag (g/t)
Number of Composites	178	177	150	50	41	29	547	453	359
Mean	0.470	0.182	2.45	0.393	0.498	3.68	0.991	0.502	9.05
Standard Deviation	0.433	0.178	2.56	0.283	0.599	1.819	1.182	0.880	10.68
Minimum	0.001	0.001	0.001	0.010	0.010	0.030	0.001	0.001	0.001
Maximum	2.368	0.690	13.71	1.105	1.920	7.20	8.098	7.370	47.32
Coefficient of Variation	0.92	0.98	1.04	0.72	1.20	0.49	1.19	1.75	1.18

17.3.3 Semivariogram Analysis

Pair-wise relative semivariograms were produced for each variable in the Domains, Lower North Junction, South Junction and waste. There was insufficient data in the North Junction Upper domain to model so for this domain, the models developed for North Lower Junction were used. In each case the horizontal plane was examined first to find the direction of maximum continuity. Once this direction was established the perpendicular vertical plane was evaluated. In all cases nested spherical models were fit to the data. The nugget to sill ratio, a measure of data variability, ranged from 10.5% to 18% for copper, from 19% to 28% for gold and from 3% to 9% for silver. All of these are quite reasonable ratios indicating low nugget effects and low sampling variability. A summary of semivariogram parameters is presented in Table 19.3.3.

Table 17.3.3: Parameters for semivariogram models at Junction

Domain	Variable	Direction	C0	C1	C2	Range a1 (m)	Range a2 (m)
North Junction Lower	Cu	Az. 225° Dip -45	0.10	0.35	0.50	15	100
		Az. 135 ° Dip -45	0.10	0.35	0.50	15	25
		Az. 315 ° Dip -45	0.10	0.35	0.50	10	60
	Au	Az. 225° Dip -45	0.30	0.40	0.50	30	80
		Az. 135 ° Dip -45	0.30	0.40	0.50	25	60
		Az. 315 ° Dip -45	0.30	0.40	0.50	45	70
	Ag	Az. 225° Dip -45	0.05	0.50	0.90	20	40
		Az. 135 ° Dip -45	0.05	0.50	0.90	30	130
		Az. 315 ° Dip -45	0.05	0.50	0.90	40	80
South Junction	Cu	Az. 220° Dip -45	0.10	0.25	0.30	30	100
		Az. 130 ° Dip -45	0.10	0.25	0.30	30	60
		Az. 310 ° Dip -45	0.10	0.25	0.30	10	60
	Au	Az. 220° Dip -45	0.20	0.10	0.40	30	60
		Az. 130 ° Dip -45	0.20	0.10	0.40	30	60
		Az. 310 ° Dip -45	0.20	0.10	0.40	30	60
	Ag	Az. 220° Dip -45	0.10	0.40	0.60	30	50
		Az. 130 ° Dip -45	0.10	0.40	0.60	60	80
		Az. 310 ° Dip -45	0.10	0.40	0.60	40	50
Junction Waste Rock	Cu	Omnidirectional	0.2	0.4	0.31	48	150
	Au	Omnidirectional	0.2	0.5	0.35	50	150
	Ag	Omnidirectional	0.05	0.60	0.65	80	150

17.3.4 Bulk Density

There were no specific gravity measurements taken on Junction. On the adjacent Galore Creek property during the 1966-67 drill campaign a total of 563 specific gravity measurements were made by measuring the weight of the sample and dividing by the amount of water it displaced. In April 1992 a total of 96 specific gravity determinations were made from drill core. During the 2003-2004 drill programs a further 30 specific gravity determinations were made. The SG determinations were made from small pieces of core at recorded distances down the hole. Using these distances the specific gravity values were joined to the assay from-to intervals that contained them. In a number of instances more than one SG determination was made on the same from-to interval. In these cases the SG values were averaged. As a result 631 assays had specific gravity determinations, across the total property. The specific gravity information can be sorted a number of ways. Table 19.3.4 shows average values for the various lithologies coded.

Table 17.3.4: Summary of Specific Gravity measurements from Galore Creek Property

	VOLC	INTR	BREC	DYKE	SEDS	FAUL
Number	435	140	8	7	5	3
Mean S.G.	2.67	2.63	2.71	2.67	2.59	2.59
S.D.	0.182	0.156	0.095	0.077	0.066	0.114
Minimum	1.69	1.91	2.56	2.50	2.34	2.43
Maximum	3.40	3.30	2.86	2.76	3.04	2.69

On Junction the principal rock type was volcanics so a specific gravity of 2.67 was chosen. This value was used for blocks below the broken/stick rock surface. Material above this boundary was severely broken and as a result a general 5 % reduction in specific gravity was applied. Blocks completely above the surface were given a specific gravity of 2.54. Blocks straddling the boundary were given a weighted average specific gravity based on the percentage of volume above and below the broken rock surface.

17.3.5 Block Model

A block model consisting of blocks 25 x 25 x 15 m in dimension was superimposed on the three dimensional solids model. Blocks were coded as inside or outside the solid model based on the centroids of the block. The block model had the following parameters:

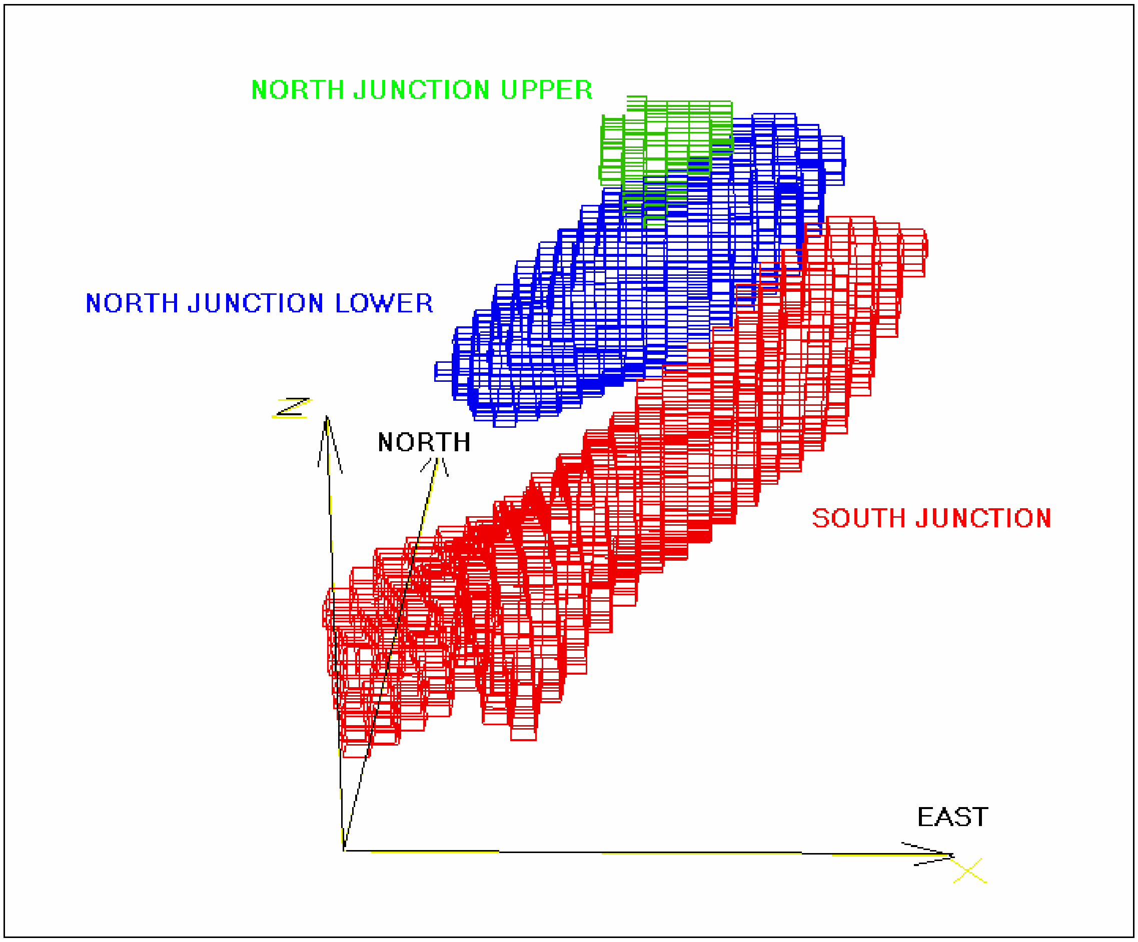
Note. Coordinates used were UTM East – 300000 and UTM North – 6300000 to make more workable units.

Model Minimum	Model Maximum	Block Size	# of Blocks
48400 E	50400 E	25	80
34900 N	36800 N	25	76
600	1800	15	80

The model was not rotated.

Blocks were compared to the topographic surface and the overburden/bedrock surface and the percentage of each block in rock was recorded. Blocks were also evaluated relative to the stick/broken rock surface with the proportion of blocks below this surface recorded. Tonnage for each block was established by percentage of block below the bedrock surface multiplied by block volume and specific gravity. An isometric view showing the various domains as colored blocks is shown below as Figure 19.3.5.

Figure 17.3.1 Isometric view of block model showing three Domains



17.3.6 Block Interpolation

Ordinary kriging was completed in 4 passes for each variable in each domain. A minimum 4 and maximum 16 composites were used for each pass. The search ellipse was expanded for each pass, starting at ¼ the ranges in each direction for pass 1, to ½ in pass 2, to the full ranges in pass 3 and finally twice the range in pass 4. The kriging process was completed in the following order.

- All blocks with some proportion below the bedrock surface and proportion of primary solid (PCORE1) greater than 0.0 were estimated for each variable in separate runs using the appropriate composites for Domains with 4 separate passes in each run. Results to Cu1, Au1 and Ag1 fields.
- All blocks with some proportion below bedrock and proportion of waste (BDRK – PCORE1) > 0.0 were estimated for each variable using composites (for waste) with 4 separate passes. Results to CuW, AuW and AgW fields.

- Grades were then combined to form weighted averages for each block based on the proportion of each domain in the block.
- SG used was 2.67 from the volcanics measured at Galore Cr. Main zone for stick rock and 5 % less or 2.54 for broken rock. Blocks containing both were adjusted to from a weighted average based on proportions of stick and broken rock present.
- Copper equivalent was estimated using the following procedure:

  Copper price of US$ 0.90/lb.
  Copper Recovery = (%Cu-0.06)/%Cu with a minimum of 50 % and maximum of 95 %
  Gold price of US$ 375/oz
  Gold Recovery = (Au g/t–0.14)/Au g/t with a minimum of 30 % and maximum of 80 %
  Silver price of US$ 5.50/oz
  Silver Recovery = 80 %

17.3.7 Classification

Based on the study herein reported, delineated mineralization of the Galore Creek Junction Zone is classified as a resource according to the following definition from National Instrument 43-101.

Geologic continuity on the Junction property has been established through surface mapping and diamond drilling. Grade continuity has been measured through the use of semivariograms. Using the ranges from the semivariograms for both copper and gold, a classification scheme was devised for the Junction Deposit. In addition, for this zone a shell of geologic continuity was imposed, by Nova geologists, on the block model outside of which, blocks could only be classed inferred irregardless of what pass they were estimated in.

Measured- Blocks estimated in Pass 1 (using ¼ of the semivariogram ranges) for both Cu and Au within the geologic continuity shell.

Indicated- Blocks not classified and estimated in at least pass 2 (using ½ of the semivariogram ranges) for Cu and Au within the geologic continuity shell.

Inferred- All other blocks estimated and all those outside the geologic continuity shell.

The results have been presented at a range of CuEq cutoffs in Appendix 3 as at this time no economic evaluation has been completed. A summary at three of these cutoffs is presented below.

Table 17.3.5 GRADE-TONNAGE FOR JUNCTION ZONE CLASSED MEASURED PLUS INDICATED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.35	30,000,000	0.589	0.412	4.777	0.837	389.62	0.40	4.61
0.50	18,300,000	0.794	0.513	6.344	1.110	320.39	0.30	3.73
1.00	7,100,000	1.347	0.713	10.617	1.795	210.88	0.16	2.42

Table 17.3.5.1 GRADE-TONNAGE FOR JUNCTION ZONE CLASSED INFERRED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.35	71,600,000	0.532	0.286	3.334	0.685	839.91	0.66	7.67
0.50	34,600,000	0.759	0.381	4.559	0.977	579.06	0.42	5.07
1.00	10,500,000	1.334	0.588	7.533	1.686	308.85	0.20	2.54

17.3.8 Inverse Distance Squared Test

As a test of the interpolation procedure, a second run was made using inversed distance squared (IDS). The same elliptical search parameters, used for kriging, were used for the IDS run. The minimum 4 and maximum 16 composite limits were used. As with kriging, the various domains were estimated in a series of passes with expanding search ellipses. The results are presented in Appendix 4 for the classification categories of measured plus indicated and inferred.

The results are very similar with differences occurring due to the weighting techniques employed by the different interpolation methods.

17.4 West Fork Zone

17.4.1 Data Analysis

Assay samples were subdivided into lithologic groups, based on NovaGold geologists logging of drill core. Lithologies present at West Fork are listed as follows:

Code	Description
200-250	Volcanics including Orthoclase-bearing (V3), crystal lithic tuff (V3h), and intermediate undivided (V5)
300-352/	Intrusives including:
371-380	Pseudoleucite Porphyry (I1), dark orthoclase syenite (I4), dark and orthoclase syenite (I4), fine grained orthoclase syenite megaporphyry (I5), medium grained orthoclase syenite megaporphyry (I9), fine grained syenite porphyry (I7), medium grained syenite porphyry (I11) and plagioclase syenite porphyry (I10a)
362	Medium Grained Syenite (I8)
369	West Fork Porphyry (WFP)
400-435	Breccia including Diatreme (B1), Heterolithic Diatreme (B1b), Hydrothermal(B2), Hydrothermal Monolithic (B2b), Orthomagmatic (B3), Orthomagmatic Heterolithic (B3b)
500-540	Dykes including lamprophyre (D1), intermediate dykes (D3) and felsic dykes (D4)

Simple statistical parameters for each group are shown below in Tables 19.4.1,19.4.1A and 19.4.1B.

Table 17.4.1: Statistics for Copper in West Fork Lithologies

Lithology	**Volcanics**	**Intrusives**	**I8 Intrusive**	**W.Fork Porphyry**	**Breccias**	**Dykes**
Codes	(200-250)	(300-380)	(362)	(369)	(400-435)	(500-540)
Number	251	1,460	261	163	844	184
Mean Cu %	2.146	0.264	0.215	0.478	0.402	0.044
S.D. Cu %	6.147	0.436	0.343	0.612	1.537	0.149
Minimum Cu %	0.001	0.001	0.004	0.002	0.001	0.001
Maximum Cu %	36.000	2.78	1.98	2.37	35.30	1.26
Coef. of Variation	2.86	1.65	1.59	1.28	3.82	3.41

Table 17.4.1.1 Statistics for Gold in West Fork Lithologies

Lithology	**Volcanics**	**Intrusives**	**I8 Intrusive**	**W.Fork Porphyry**	**Breccias**	**Dykes**
Codes	(200-250)	(300-380)	(362)	(369)	(400-435)	(500-540)
Number	251	1,460	261	163	844	184
Mean Au (g/t)	0.363	0.264	0.235	0.363	0.287	0.057
S.D. Au (g/t)	1.051	0.436	0.474	0.499	0.558	0.155
Minimum Au (g/t)	0.002	0.001	0.002	0.014	0.002	0.001
Maximum Au (g/t)	9.69	2.78	5.94	2.77	6.70	0.69
Coef. of Variation	2.89	1.65	2.01	1.37	1.94	2.71

Table 17.4.1.2 Statistics for Silver in West Fork Lithologies

Lithology	Volcanics	Intrusives	I8 Intrusive	W.Fork Porphyry	Breccias	Dykes
Codes	(200-250)	(300-380)	(362)	(369)	(400-435)	(500-540)
Number	251	1,460	261	163	844	184
Mean Ag (g/t)	13.07	2.44	2.68	4.65	2.65	0.306
S.D. Ag (g/t)	38.82	4.47	7.30	8.33	9.13	0.661
Minimum Ag (g/t)	0.030	0.001	0.03	0.03	0.03	0.001
Maximum Ag (g/t)	222.0	65.3	63.7	38.4	206.0	6.8
Coef. of Variation	2.96	1.82	2.72	1.79	3.45	2.16

The Opulent Vein was not divided out in the above tabulations leading to the high copper values and averages in Volcanics and Breccias. Nova geologists next tried to model each lithology in three dimensional space and found many could not be individually represented. It appears from the statistics that volcanics, intrusives and breccias are all mineralized in this area and could be lumped together if necessary. The four units that modeled well were the Opulent Vein, the I8 intrusive, the Lamprophyre dyke and the West Fork Porphyry. The remaining rock units NE of the Opulent Vein were combined to form a geologic domain that appeared to dip steeply while those units SW of the Opulent Vein were combined into a more tabular Geologic Domain.

Table 17.4.1.3 Summary of statistics for Geologic Domains

GEOLOGIC DOMAIN		Cu (%)	Au (g/t)	Ag (g/t)
West Fork Steeply Dipping Mineralized Zone NE of Opulent Boundary	Number	1,560	1,552	1,553
	Mean	0.275	0.224	2.23
	S.D.	0.429	0.357	3.69
	Minimum	0.001	0.002	0.03
	Maximum	2.780	2.960	46.80
	C.V.	1.56	1.59	1.66
West Fork Flat Lying Mineralized Zone SW of Opulent Boundary	Number	1,056	1,056	1,056
	Mean	0.219	0.64	2.59
	S.D.	0.377	0.309	5.97
	Minimum	0.001	0.002	0.03
	Maximum	2.36	3.54	65.3
	C.V.	1.72	1.88	2.31
Opulent Vein	Number	67	67	67
	Mean	9.490	1.874	53.64
	S.D.	9.937	1.887	66.07
	Minimum	0.06	0.114	0.03
	Maximum	36.0	9.69	222.0
	C.V.	1.05	1.01	1.23

Intrusive I8	Number	257	257	257
	Mean	0.182	0.172	1.50
	S.D.	0.291	0.397	4.21
	Minimum	0.003	0.002	0.10
	Maximum	1.980	5.940	63.7
	C.V.	1.59	2.30	2.80
West Fork Porphyry	Number	185	185	185
	Mean	0.374	0.280	2.82
	S.D.	0.513	0.427	4.65
	Minimum	0.002	0.002	0.10
	Maximum	2.37	2.77	31.1
	C.V.	1.37	1.52	1.65
Lamprophyre Dyke	Number	67	67	67
	Mean	0.007	0.005	0.151
	S.D.	0.006	0.012	0.127
	Minimum	0.003	0.002	0.10
	Maximum	0.041	0.098	0.80
	C.V.	0.83	2.59	0.84

These geologic domains were then examined for copper, gold and silver using lognormal cumulative frequency plots to determine if capping was required and if so at what levels. The Opulent Vein, which was highly mineralized and the Lamprophyre Dyke which was not mineralized were separated out while the remaining mineralized zones were combined.

The mineralized zones of West Fork Steep, West Fork Flat, I8 and West Fork Porphyry were combined into one data set called West Fork Mineralized Zone. For copper the highest population with a mean of 1.638 % represents 108 samples and cannot be considered erratic. A reasonable capping level for this population would be at 2 standard deviations past the mean of population 1 or a value of 2.58 % Cu. A single value at 2.78 was capped at 2.58 %. For gold the upper population 1 represented 0.41 % if the data or 13 samples. This population could be considered erratic and an effective cap would be at 2 standard deviations past the mean of population 2, a value of 2.56 g Au/t. A total of 8 samples were capped at 2.56 g Au/t. The highest population for silver had a mean of 35.54 g Ag/t and represented 0.61 of the data or 19 samples. A reasonable cap on silver would be at 2 standard deviations past the mean of population 2, a value of 39.4 g Ag/t. A total of 5 silver assays were capped at 39.4 g Ag/t.

Cap levels for the Opulent Vein were set at 2 standard deviations above the mean of the upper population and no samples required capping.

Table 17.4.1.4 Summary of capping parameters

Zone	Variable	Cap Level	Number Capped
West Fork Mineralized Zones	Cu	2.58 %	1
	Au	2.56 g/t	8
	Ag	39.4 g/t	5
Opulent Vein	Cu	45 %	0
	Au	18.3 g/t	0
	Ag	232 g/t	0

No samples in the Lamprophyre Dyke required capping.

17.4.2 Composites

The drill hole assays were compared to the interpreted three dimensional solids (Geologic Domains) and the point at which each drill hole entered and left a particular solid was noted. Uniform down hole 5 m composites were then formed using the capped values for each Geologic Domain. Composites near the limits of the domain, less than 2.5 m in length, were combined with the adjacent composite to produce a uniform support of 5 ± 2.5 m. The composite statistics are shown below.

Table 17.4.2: Summary of Composite Statistics for each Geologic Domain

GEOLOGIC DOMAIN		Composite Cu (%)	Composite Au (g/t)	Composited Ag (g/t)
West Fork Steep	Number	666	666	666
	Mean	0.243	0.214	2.04
	S.D.	0.354	0.274	2.79
	Minimum	0.001	0.002	0.03
	Maximum	2.238	1.454	24.48
	C.V.	1.46	1.28	1.37
West Fork Flat	Number	523	523	523
	Mean	0.191	0.153	2.32
	S.D.	0.302	0.250	5.00
	Minimum	0.001	0.002	0.03
	Maximum	2.102	1.914	38.40
	C.V.	1.58	1.64	2.16
I8 Intrusive	Number	111	111	111
	Mean	0.164	0.155	1.30
	S.D.	0.239	0.160	1.76
	Minimum	0.003	0.002	0.10
	Maximum	1.748	1.045	15.22
	C.V.	1.46	1.03	1.35
West Fork Porphyry	Number	84	84	84
	Mean	0.302	0.257	2.35
	S.D.	0.399	0.364	3.61
	Minimum	0.002	0.002	0.10
	Maximum	1.819	1.919	21.63
	C.V.	1.32	1.42	1.54
Opulent Vein	Number	21	21	21
	Mean	7.67	1.71	40.4
	S.D.	8.56	0.99	57.0
	Minimum	0.96	0.18	0.03
	Maximum	27.46	4.45	164.2
	C.V.	1.12	0.58	1.41
Lamprophyre Dyke	Number	37	37	37
	Mean	0.007	0.005	0.153
	S.D.	0.005	0.011	0.108
	Minimum	0.003	0.002	0.10
	Maximum	0.029	0.064	0.56
	C.V.	0.71	2.14	0.70

17.4.3 Variography

Pair-wise relative semivariograms were produced for five of the six Geologic Domains. There were insufficient data points within the Lamprophyre Dyke domain to model. In the case of West Fork Steep and West Fork flat anisotropy was proven with nested spherical models fit to the three major directions of grade continuity. For the I8 intrusive, the West Fork Porphyry and the Opulent Vein there was insufficient data to disprove the assumption of isotropy so average omni-directional models were fit to the data. The parameters for all models are shown below in Table 19.4.3.

Table 17.4.3: Parameters for semivariogram models at West Fork

Domain	Variable	Direction	C0	C1	C2	Range a1 (m)	Range a2 (m)
West Fork Steep Domain	Cu	Az. 35° Dip 0	0.10	0.32	0.62	30	130
		Az. 305 ° Dip -65	0.10	0.32	0.62	45	180
		Az. 125 ° Dip -25	0.10	0.32	0.62	20	80
	Au	Az. 35° Dip 0	0.05	0.25	0.55	20	50
		Az. 305 ° Dip -65	0.05	0.25	0.55	20	150
		Az. 125 ° Dip -25	0.05	0.25	0.55	20	40
	Ag	Az. 35° Dip 0	0.10	0.25	0.55	15	100
		Az. 305 ° Dip -65	0.10	0.25	0.55	15	120
		Az. 125 ° Dip -25	0.10	0.25	0.55	20	40
West Fork Flat Domain	Cu	Az. 45° Dip 0	0.05	0.08	0.60	20	80
		Az. 135 ° Dip 0	0.05	0.08	0.60	20	60
		Az. 0 ° Dip -90	0.05	0.08	0.60	5	85
	Au	Az. 45° Dip 0	0.15	0.25	0.40	20	60
		Az. 135 ° Dip 0	0.15	0.25	0.40	20	60
		Az. 0 ° Dip -90	0.15	0.25	0.40	20	120
	Ag	Az. 45° Dip 0	0.25	0.20	0.55	20	80
		Az. 135 ° Dip 0	0.25	0.20	0.55	20	80
		Az. 0 ° Dip -90	0.25	0.20	0.55	40	100
I8 Intrusive Domain	Cu	Omnidirectional	0.2	0.2	0.6	28	120
	Au	Omnidirectional	0.2	0.2	0.3	20	80
	Ag	Omnidirectional	0.2	0.3	0.15	25	120
West Fork	Cu	Omnidirectional	0.2	0.1	0.55	10	100

Porphyry	Au	Omnidirectional	0.25	0.10	0.30	20	80
	Ag	Omnidirectional	0.25	0.05	0.40	15	80
Opulent Vein	Cu	Omnidirectional	0.10	0.55		38	
	Au	Omnidirectional	0.10	0.35		35	
	Ag	Omnidirectional	0.40	1.00		35	

17.4.4 Geologic Block Model

A block model of 25 x 25 x 15 m blocks was superimposed on the geologic 3-D solids. The origin and parameters of the general Galore Creek block model, within which the West Fork deposit lies, were as follows:

Lower left corner	Easting	-	48000 E	25 m block	240 columns
	Northing	-	32000 N	25 m block	240 rows
Top Level	Elevation	-	1605	15 m block	107 levels

No Rotation

For each block the following information was recorded:

- Percentage of block below topography
- Percentage of block below bedrock
- Percentage of block below the broken/stick surface
- The most prevalent solid percentage was stored as OREPC1
- The second most prevalent solid percentage was stored as OREPC2
- The percentage of OREPC1 plus OREPC2 was subtracted from the percentage of rock below the bedrock surface to give PCWESTFORK (the remaining material)

17.4.5 Bulk Density

Fifty-two measurements of specific gravity have been taken from the West Fork area as shown in Table 19.4.5. Blocks in the model were coded by geologic domain and each block had the proportion of broken and stick rock recorded. Stick rock or rock that is more or less in one piece was assigned the SG shown in Table 19.4.5 while broken rock was assigned the SG less 5 %. Blocks that straddled the broken/stick surface were assigned a weighted average based on relative volumes above and below this surface.

There were only three measurements from the Opulent Vein and all came from the same composite that averaged 23.6 % Cu. This was the 2nd highest copper value in the vein and as a result was not considered representative. A reduced value for specific gravity of 3.5 was assigned to the stick portion of the Opulent Vein while 3.33 was assigned to the broken portion. Lamprophyre Dykes were assigned a value of 2.73 in stick rock and 2.59 in broken rock. All other units were assigned an SG of 2.66 in stick rock and 2.53 in broken rock.

Table 17.4.4 Measured Specific Gravities - West Fork

HOLE	SAMPID	SG	LITH	DESCRIPTION
West Fork Porphyry				
GC04-0491	106379	2.60	WFP	From Chemex CertifID 667
GC04-0494	106072	2.74	WFP	From Chemex CertifID 667
	Average	**2.67**		
I8 Intrusives				
GC04-0474	110878	2.56	i8	From Chemex CertifID 667
GC04-0483	111374	2.74	i8	From Chemex CertifID 667
GC04-0486	106300	2.63	i8	From Chemex CertifID 667
GC04-0500	107636	2.64	i8	From Chemex CertifID 667
GC04-0500	107636	2.64	i8	From Chemex CertifID 667
GC64-0135	GC-6203	2.75	i8	From old logs - 10 ft BX = 24.7 lbs
	Average	**2.66**		
Volcanics, Intrusives and Breccias				
GC04-0477	111623	2.96	V3	From Chemex CertifID 667
GC04-0469	110033	2.63	i9	From Chemex CertifID 667
GC04-0472	110828	2.65	i9	From Chemex CertifID 667
GC04-0477	111649	2.65	i9	From Chemex CertifID 667
GC04-0486	106300	2.63	i9	From Chemex CertifID 667
GC04-0496	107583	2.61	i9	From Chemex CertifID 667
GC04-0496	107583	2.61	i9	From Chemex CertifID 667
GC63-0072	GC-1965	2.68	i7	From old logs - 10 ft BXW = 18.8 lbs
GC04-0498	106770	2.81	i5	From Chemex CertifID 667
GC04-0498	106770	2.81	i5	From Chemex CertifID 667
GC04-0464	109788	2.62	i4	From Chemex CertifID 667
GC04-0464	109788	2.62	i4	From Chemex CertifID 667
GC04-0472	110834	2.68	i4	From Chemex CertifID 667
GC04-0479	110990	2.67	i4	From Chemex CertifID 667
GC04-0480	111502	2.70	i4	From Chemex CertifID 667
GC04-0496	106906	2.65	i4	From Chemex CertifID 667
GC04-0500	107638	2.58	i4	From Chemex CertifID 667
GC63-0066	GC-1138	2.56	i4	From old logs - 10 ft BX = 18 lbs
GC63-0066	GC-1135	2.49	i4	From old logs - 10 ft BX = 22.4 lbs
GC63-0072	GC-1485	2.54	i4	From old logs - 10 ft BXW = 17.9 lbs
GC63-0072	GC-1955	2.85	i4	From old logs - 10 ft BXW = 20 lbs

GC63-0072	GC-1495	2.69	i4	From old logs - 10 ft BXW = 18.9 lbs
GC63-0050	GC-301	2.56	i11	From old logs - 10 ft NX = 44.2 lbs
GC63-0050	GC-313	2.48	i11	From old logs - 10 ft NX = 42.5 lbs
GC04-0496	106921	2.82	i10a	From Chemex CertifID 667
GC04-0476	106182	2.70	i1	From Chemex CertifID 667
GC64-0123	GC-5702	2.71	i	From old logs - 10 ft BX = 24.4 lbs
GC64-0127	GC-5805	2.56	i	From old logs - 10 ft BX = 23 lbs
GC04-0486	106235	2.67	B1	From Chemex CertifID 667
GC04-0464	109834	2.72	B	From Chemex CertifID 667
GC04-0464	109788	2.62	B	From Chemex CertifID 667
GC04-0464	109788	2.62	B	From Chemex CertifID 667
GC04-0483	111418	2.78	B	From Chemex CertifID 667
GC04-0494	106042	2.73	B	From Chemex CertifID 667
GC04-0496	106889	2.69	B	From Chemex CertifID 667
GC63-0066	GC-1282	2.55	B	From old logs - 10 ft BX = 17.92 lbs
GC63-0066	GC-1292	2.54	B	From old logs - 10 ft BX = 17.9 lbs
	Average	**2.66**		
		Dykes		
GC04-0500	107675	2.75	D3	From Chemex CertifID 667
GC04-0491	106411	2.84	D1	From Chemex CertifID 667
GC04-0474	110885	2.62	D	From Chemex CertifID 667
GC04-0474	110893	2.71	D	From Chemex CertifID 667
	Average	**2.73**		
		Opulent Vein		
GC04-0480		4.81		At 50.90
GC04-0480		4.74		At 51.54
GC04-0480		4.77		At 52.20
	Average	**4.77**		

17.4.6 Block Interpolation

Ordinary kriging was completed in 4 passes for each variable in each domain. A minimum 4 and maximum 16 composites were used for each pass. The search ellipse was expanded for each pass, starting at ¼ the ranges in each direction for pass 1, to ½ in pass 2, to the full ranges in pass 3 and finally twice the range in pass 4. The kriging process was completed in the following order.

- All blocks with some proportion below the bedrock surface and a proportion of primary solid (OREPC1) greater than 0.0 were estimated for each variable in separate runs using the appropriate composites for Domains with 4 separate passes in each run.

- All blocks with some proportion below the bedrock surface and a proportion of secondary solid (OREPC2) greater than 0.0 were estimated for each variable in separate runs using the appropriate composites for Domains with 4 separate passes in each run.
- All blocks with some proportion below the bedrock surface and a proportion of remaining rock (PCWESTFORK) greater than 0.0 were estimated for each variable in separate runs using the appropriate composites for Domains with 4 separate passes in each run.
- Grades were then combined to form weighted averages for each block based on the proportion of each domain in the block.
- Copper equivalent was estimated using the following procedure:

Copper price of US$ 0.90/lb.
Copper Recovery = (%Cu-0.06)/%Cu with a minimum of 50 % and maximum of 95 %
Gold price of US$ 375/oz
Gold Recovery = (Au g/t–0.14)/Au g/t with a minimum of 30 % and maximum of 80 %
Silver price of US$ 5.50/oz
Silver Recovery = 80 %

17.4.7 Classification

Based on the study herein reported, delineated mineralization of the Galore Creek West Fork Zone is classified as a resource according to the following definition from National Instrument 43-101.

Geologic continuity on the West Fork property has been established through surface mapping and diamond drilling. Grade continuity has been measured through the use of semivariograms. Using the ranges from the semivariograms for both copper and gold, a classification scheme was devised for the West Fork Deposit.

Measured-	Blocks estimated in Pass 1 (using ¼ of the semivariogram ranges) for both Cu and Au.
Indicated-	Blocks not classified and estimated in at least pass 2 (using ½ of the semivariogram ranges) for Cu and Au.
Inferred-	All other blocks estimated.

The results have been presented at a range of copper equivalent cutoffs in grade-tonnage tables shown in Appendix 3 as at this time no economic evaluation has been completed. A summary for three cutoffs is shown below.

Table 17.4.5 GRADE-TONNAGE FOR WEST FORK ZONE CLASSED MEASURED PLUS INDICATED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.35	15,100,000	0.580	0.379	4.793	0.798	193.11	0.18	2.33
0.50	10,800,000	0.694	0.438	5.675	0.949	165.27	0.15	1.97
1.00	3,300,000	1.118	0.631	9.930	1.514	81.35	0.07	1.05

Table 17.4.5.1 GRADE-TONNAGE FOR WEST FORK ZONE CLASSED INFERRED

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.35	45,400,000	0.466	0.339	4.986	0.665	466.50	0.50	7.28
0.50	29,700,000	0.553	0.403	6.181	0.797	362.15	0.39	5.90
1.00	4,900,000	0.841	0.603	9.948	1.219	90.87	0.10	1.57

18. OTHER RELEVANT DATA AND INFORMATION

Geotechnical studies, to optimize pit wall angles, were initiated in 2004 and a more comprehensive program is planned for 2005.

In 2004, seismic refraction surveys along 10.5 kilometers of line were completed as part of a program to determine the overburden thickness in various areas.

19. INTERPRETATION AND CONCLUSIONS

Galore Creek is defined as the property including the Central zone, the Southwest zone, the Junction zone, and the West Fork zone. In total, the property has been tested with 463 diamond-drill holes totaling 109,962 meters. The assay database for the property totals more than 37,913. As well as the drilling, the property has been the subject of soil and stream sediment geochemistry programs, helicopter airborne magnetic and radiometric surveys, ground based IP/resistivity surveys, and seismic refraction surveys.

As a result of the 2004 program it is recommended that additional drilling and geophysics be utilized to advance the project toward a planned feasibility study and to continue additional exploration of the property. Follow-up drilling is required on the newly discovered West Fork and Opulent Vein mineralized systems to define their extent. Additional drilling is warranted on the Central, Junction and Southwest zones to continue to define the limits of known mineralization and complete necessary infill drilling.

Galore Creek represents an advanced project that is the subject of a pre-feasibility study.

20. RECOMMENDATIONS

The 2004 work program was completed in a professional manner as expected of the industry. In addition to the type and quality of the 2004 work a few recommendations for additional work in support of the next stage of the project, as it moves toward a feasibility study, are as follows:

1) Possible economic pit perimeters, including high walls of the Central, Southwest and Junction resources need to be drill tested for the determination of geotechnical characteristics. Additional oriented core should be collected for the determination of structural orientations in all the resource areas for a better understanding of pit wall stability.

2) Condemnation drilling is required in both the proposed plant site and tailing and waste disposal areas. A program of reconnaissance geophysics may be utilized to help locate areas of possible mineralization requiring more detail evaluation by drilling.

3) More information must be collected on bulk density of the various parts of the deposit, especially the “broken zone” where core recoveries and RQD values are low and the bulk densities are not indicative of determinations of single sample specific gravity. A series of surface pits, where exposure allows, dug by and excavator to determine bulk density is recommended.

4) A program of check assays, by at least one other lab, to verify the accuracy of ALS Chemex. The submission of 5% to a third party lab using the same methodology and the inclusion of standards for comparison should suffice.

5) To reach the feasibility level, infill drilling to upgrade the classification of resources in the four mineralized zones is required. Most of the Central Zone and Junction zones are classified as M&I, but very little of the West Fork and Southwest zones are. Extension drilling in these areas is needed as well as to define the potential pit limits.

21. REFERENCES

Alaskan Geographic Society (1979): The Stikine River; V. 6, 94 pp.

Allan, D. F. (1963): Private memorandum in regards Copper Canyon Prospect dated December 11, 1963.

Alldrick, D. J., Gabites, J. E. and Godwin, C. I. (1987): Lead Isotope Data from the Stewart Mining Camp, in Geological Fieldwork 1986; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey Branch, Paper 1987-1, pp. 93-102.

Allen, D. G. (1971): The Origin of Sheet Fractures in the Galore Creek Deposit, British Columbia; Can. Journal of Earth Science, V. 8, pp. 704-711.

Allen, D. G., A. Panteleyev and A. T. Armstrong (1976): ClM Special Volume 15; pp. 402-414.

American Metal Company (1957): Diamond Drill Logs and Assay Sheets and Drill Hole Sections for the Copper Canyon Property; Unpublished data and maps at a scale of 1 :2400 prepared for American Metal Company.

Anderson, R. G. (1983): The Geology of the Hotailuh Batholith and Surrounding Volcanic and Sedimentary rocks, North-central British Columbia; Unpublished Ph.D. thesis, Carleton University, Ottawa, Ontario, Canada.

Anderson, R. G. (1989): A Stratigraphic, Plutonic, and Structural Framework for the Iskut River map area, North-western British Columbia, in Current Research, Part E; Geol. Surv. Can. Paper 89-1E, pp. 145-154.

Barr, D. A. (1966): The Galore Creek Copper Deposits; Canadian Institute of Mining and Metallurgy, Bulletin, V. 59, pp. 841-853.

Barr, D. A., Fox, P. E., Northcote, K. E. and Preto, V. A. (1976): The Alkaline Suite Porphyry Deposits--A Summary; Porphyry Deposits of the Canadian Cordillera, CIMM Spec. Vol. 15, pp. 358-367.

Bell, R. A. and P. G. Hallof (1967): Supplementary Report on the Induced Polarization and Resistivity Surveys on the Copper Canyon Claim Group; Unpublished report for Amax Exploration, Inc.

Bottomer, L.R. and Leary, G.M., 1995, Copper Canyon porphyry copper-gold deposit, Galore Creek area, northwestern British Columbia: Part C, Porphyry Copper (±Au) Deposits of the Alkalic Suite – Paper 47, in Porphyry Deposits of the Northwestern Cordillera of North America, CIM Special Volume 46.

Brown, D. A., and Gunning, M. H. (1989a): Geology of the Scud River area, North Western British Columbia, (104G/5, 6), in Geological Fieldwork 1988; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey Branch, Paper 1989-1, pp. 251-267.

Brown, D. A., and Gunning, M. H. (1989b): Geology of the Scud River area, North Western B. C. (map); British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geol. Survey Branch, Open File 1989-7.

Carswell, H. T. (1964): Summary Report, Petrography of Some Copper Canyon Rocks; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #603.

Caulfield, D. A. (1990): qualifying rep0rt on the Copper Canyon Project, July, 1990, for Consolidated Rhodes Resources Ltd; Equity Engineering Ltd.

Caulfield, D. A. (1990): Private letter in regards property examination of the Copper Canyon Property to review Phase I drilling and mapping results; Oct. 1, 1990; Equity Engineering Ltd.

de Rosen-Spence, A. (1985): Shoshonites and associated rocks of central British Columbia, in Fieldwork 1984; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey Branch, Paper 1985-1, pp. 426-442.

Dobell, J. P. (1957): Preliminary Geological Report, Copper Canyon Prospect; Unpublished report for the American Metal Company, Limited dated June 29, 1957.

Dobell, J. P. (1957): 1 :2400 scale outcrop map of syenite, Copper Canyon Project, dated Dec., 1957 for the American Metal Company, Limited.

Dobell, J. P., J. de Leen and B. Spencer (1967): Geological Maps at scales of 1 :2,400 and 1 :12,000 of the C. C. 1 to 6 incl., 13 and 14 Claims; Unpublished data prepared for Southwest Potash Corporation.

Dobell, J. P. and B. Spencer (1958): Revised Surface Geology, Ore Blocks and Proposed Exploration; Unpublished map at a scale of 1 :2,400 prepared for American Metal Climax Inc.

Dvorak, Z. (1990): Report on combined helicopter-borne magnetic, electromagnetic and VLF survey of the Trophy Gold Project, North-western B. C.; private report and maps dated Aug. 9, 1990 for Gigi Resources Ltd.; Aerodat Limited.

Ettlinger, A. D. and Ray, G. E. (1989): Precious Metal Enriched Skarns in British Columbia: An Overview and Geological Study; B. C. Ministry of Energy, Mines and Resources, Paper 1989-3.

Falconer, R. D. (1965): Magnetometer Survey, Copper Canyon Project; Unpublished report for the Racicot Syndicate.

Fox, P. E., Grove, E. W., Seraphim, R. H. and Sutherland-Brown, A. (1976): Schaft Creek, in Porphyry Deposits of the Canadian Cordillera; Canadian Institute of Mining and Metallurgy, Special Volume 15, pp. 402-414.

Galibois, R. D. (1990): Plan showing surveyed locations of drill holes on mineral claims CC No. 1 to 6; map dated Oct. 23, 1990; McGladrey and Associates.

Geological Survey of Canada (1957): Stikine River area, Cassiar District, British Columbia; Geological Survey of Canada Map 9-1957.

Hatch, et al. (2005): Geology and Resource Potential of the Copper Canyon Property.

Hatch, et al. (2004): Update on Resources, Galore Creek Project, British Columbia.

Hatch, (2004): Galore Creek Scoping Study.

Hitchins, A. C. (1988): 1988 Summer Exploration Report on the Copper Canyon Property; Unpublished report for Canamax Resources Inc.

Holbeck, A. M. (1988): Geology and Mineralization of the Stikine Assemblage, Mess Creek area, north-western British Columbia, unpublished M.Sc. thesis, University of British Columbia, Vancouver, British Columbia, Canada, 174 pp.

Jeffrey, H. G. (1965): Copper Canyon; in Report of Ministry or Mines and Petroleum Resources, 1965; pp. 34-36.

Jenney, C. P. (1956): Copper Canyon Prospect; Unpublished report for the American Metal Company, Limited, dated October 3, 1956.

Kerr, F. A. (1948a): Lower Stikine and Iskut River areas, British Columbia; Geological Survey of Canada, Memoir 246, 94 pp.

Kerr, F. A. (1948b): Taku River map-area, British Columbia; Geological Survey of Canada, Memoir 248, 84 pp.

Leary, G.M. (1990); Report on 1990 Phase 1 Mapping and Drilling on the Copper Canyon Property, British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report #21,062

Logan, J. M., and Koyanagi, V. M.(1989a): Geology and Mineral Deposits of the Galore Creek area, North-western B.C., 104G/3, 4, in Geological Fieldwork 1988; British Columbia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey Branch, Paper 1989-1, pp. 269-284.

Logan, J. M., Koyanagi, V. M. and Drobe, J. R. (1989): Geology of the Forrest Kerr Creek Area, North-western British Columbia; British Columbia Ministry of Energy, Mines and Resources, Paper 1990-1.

Logan, J. M., Koyanagi, V. M. and Rhys, D. (1989b): Geology and Mineral Occurrences of the Galore Creek Area; British Columbia Ministry of Energy, Mines, and Petroleum Resources; Geological Survey Branch Open File 1989-8, Sheet 1 of 2.

Monger, J. W. H. (1977): Upper Pa1aeozoic rocks of the western Canadian Cordillera and their bearing on Cordilleran evolution; Canadian Journal of Earth Science, V. 14, pp. 1832-1859.

Monger, J. W. H. (1984): Cordilleran Tectonics: a Canadian Perspective; Bull. Soc. Geol. France, 1984(7) t. XXVI, N. 2, pp. 255-278.

Naylor, H. H. F. (1965): Report on Geology--Copper Canyon; British Columbia Ministry of Energy, Mines and Petroleum Resources Assess. Report #603.

Nelson, J., and Payne, J. G. (1984): Palaeozoic volcanic assemb1aqes and volcanogenic massive sulphide deposits near Tulsequah, B. C., Can. Journal of Earth Science, V. 21, pp. 379-381.

Pantelyev, A. (1976): Galore Creek map area, British Columbia, in Geological Fieldwork 1975; British Columbia Ministry of Energy, Mines, and Petroleum Resources; Geological Survey Branch, Paper 1976-1; pp. 79-81.

Peden, R. (1990): Private drill reports for 90DDH 1 to 6 inclusive; dated Sep. 6 to 24, 1990, GML Minerals Consulting Ltd.

Shepherd, N. (1966): Copper Canyon Prospect, Review and Recommendations; Unpublished report for Amax Exploration, Inc., dated Jan., 1966.

Simpson, R.G. (2003): Independent Technical Report for the Galore Creek Property.

Snively (1966): Soil-sample Map, Molybdenum & Copper, Unpublished map at a scale of 1 :2,400 prepared for Amax Exploration, Inc.

Souther, J. G. (1971): Telegraph Creek Map Area, British Columbia; Geological Survey of Canada Paper pp 71-44.

Souther, J. G., and Armstrong, J. E. (1966): North Central Belt of the Cordil1era of British Columbia, in Tectonic History and Mineral Deposits of the Western Cordillera; Canadian Institute of Mining and Metallurgy, Special Vol. 8, pp. 171-184.

Souther, J. G., and Symons, D. T. A. (1974): Stratigraphy and Palaeomagnetism of the Mount Edziza volcanic complex, north-western British Columbia; Geological Survey of Canada Paper 73-32,48 pp.

Souther, J. G., Brew, D. A., and Okulitch, A. V. (1979): Iskut River 1:1,000,000 Geological Atlas; Geological Survey of Canada, Map 1418A.

Stockwatch Bulletins (Canjex Publishing Ltd.): Oct. 11, 1990; Oct. 26th, 1990; Dec. 20, 1990; May 27, 1991; July 19, 1991; Aug. 28, 1991; Oct 30, 1991

Tremuende, T.J., 2002, Geological report for the Copper Canyon project, Kopper King 1 – 2, KK 3 – 4 Claims (Tenure numbers 389151-52; 395836-7) Laird Mining Division NTS Map sheets 104G013, 014 UTM 6334000/357000: Internal report prepared for Eagle Plains Resources LTD.

22. DATE AND SIGNATURE PAGES

James H. Gray PEng.

I, James H Gray. *P.Eng.* do hereby certify that:

1. I am a Principal of GR Technical Services Ltd., 2767 Evercreek Bluffs Way SW Calgary Alberta Canada T2Y 4P6.

2. I graduated with a Bachelor of Applied Science in Mining Engineering from the University of British Columbia in 1975.

3. I am registered by The Association of Professional and Geoscientists of the Province of British Columbia, registration number 11,919, and the Association of Professional Engineers, Geologists and Geophysicists of Alberta (M47177).

4. I have worked as a Professional Engineer for over 25 years since my graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the technical report entitled Geology and Resource Potential of the Galore Creek Property dated 18 May 2005 (the "Technical Report") relating to the Galore Creek property. I visited the Galore Creek properties during the period 13-15 September 2004.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 18th day of May 2005.

"James Gray"

James H. Gray PEng.

Robert J. Morris, M.Sc., P.Geo.

I, Robert James Morris, *P.Geo.* do hereby certify that:

1. I am an associate of GR Technical Services Ltd., 2767 Evercreek Bluffs Way SW Calgary Alberta Canada T2Y 4P6.

2. I graduated with a B.Sc. in Geology from the University of British Columbia in 1973. In addition, I have obtained a M.Sc. in Geology from Queen's University in 1978.

3. I am registered by The Association of Professional and Geoscientists of the Province of British Columbia, registration number 18,301.

4. I have worked as a geologist for a total of 31 years since my graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of the technical report entitled Geology and Resource Potential of the Galore Creek Property dated 18 May 2005 (the "Technical Report") relating to the Galore Creek property. I visited the Galore Creek properties between 9-15 October 2004.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 18th day of May 2005.

"Robert J. Morris"

____
Robert J. Morris M.Sc., P.Geo

G.H. Giroux

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at #513 - 675 West Hastings Street, Vancouver, British Columbia.

2. I am a graduate of the University of British Columbia in 1970 with a B.A.Sc. and in 1984 with a M.A.Sc. both in Geological Engineering.

3. I have practiced my profession continuously since 1970.

4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in National Policy 43-101.5

6. This report is based on a study of the available data and literature provided by NovaGold. I am responsible for the resource estimation section of this report. The work was completed in Vancouver during the period January to May 2005. I have not visited the property.

7. I have not worked previously on this project or property.

8. I am not aware of any material fact or material change with respect to the subject matter of the technical report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 18th day of May, 2005

"G.H. Giroux"

____

G. H. Giroux, P.Eng., MASc.

APPENDIX 1

Property	Claim Name	Grant No.	Expiry	Owner	NTS	District
Galore Creek	HAB #1	226160	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #3	226161	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #18	226162	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #20	226163	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #47	226164	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #48	226165	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #49	226166	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #50	226167	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #51	226168	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB #52	226169	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #4	226175	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #5	226176	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #6	226177	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #7	226178	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #8	226179	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #11	226180	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #13	226181	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #14	226182	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #15	226183	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	BUY #16	226184	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #1	226219	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #2	226220	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #3	226221	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #4	226222	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #5	226223	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #6	226224	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #7	226225	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #8	226226	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #9	226227	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #10	226228	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #11	226229	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #12	226230	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #13	226231	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #14	226232	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #15	226233	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #16	226234	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #17	226235	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #18	226236	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #19	226237	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #21	226238	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #23	226239	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #24	226240	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #25	226241	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #26	226242	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #27	226243	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #28	226244	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #29	226245	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #31	226246	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #34	226247	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #35	226248	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #36	226249	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #37	226250	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #38	226251	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #39	226252	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #40	226253	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #41	226254	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #42	226255	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #43	226256	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #44	226257	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #45	226258	12/1/2014	Stikine Copper Limited	104G013	Liard

Galore Creek	G.C. 46	226259	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 47	226260	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #48	226261	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #49	226262	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #50	226263	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #51	226264	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C 52	226265	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 53	226266	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 54	226267	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 55	226268	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 56	226269	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 57	226270	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 58	226271	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 59	226272	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #60	226273	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #61	226274	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #62	226275	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #63	226276	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #64	226277	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #65	226278	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #66	226279	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #67	226280	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. #68	226281	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. #70 M.C.	226282	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. #72 M.C.	226283	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 74	226284	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 75	226285	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 79	226286	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 80	226287	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 81	226288	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 82	226289	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 83 M.C.	226290	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 84	226291	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 85	226292	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C 86	226293	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 87	226294	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 88	226295	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 89	226296	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 90	226297	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 91	226298	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C 92	226299	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 93	226300	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 94	226301	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 95	226302	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 96	226303	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 97	226304	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 98	226305	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 99	226306	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 100	226307	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 101	226308	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 102	226309	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 103	226310	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 104	226311	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 105	226312	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 106	226313	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 107	226314	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 108	226315	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 109	226316	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. NO. 2 FRACTIONAL	226333	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 111 M.C.	226334	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 112	226335	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 113	226336	12/1/2014	Stikine Copper Limited	104G013	Liard

Galore Creek	G.C. 114 M.C.	226337	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 115	226338	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 116 M.C.	226339	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 118	226341	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 119	226342	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 120	226343	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 121	226344	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 122	226345	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 123	226346	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 124	226347	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 125	226348	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 126	226349	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 127	226350	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 128	226351	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 129	226352	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 130	226353	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 131	226354	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 132	226355	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 133	226356	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 134	226357	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 135	226358	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	G.C. 136	226359	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 137	226360	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 138	226361	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 139	226362	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 140	226363	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 141	226364	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 142	226365	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 143	226366	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 144	226367	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 145	226368	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 146	226369	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 147	226370	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 148	226371	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 149	226372	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	HAB NO. 1 FRACTIONAL	226373	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 150	226374	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 151	226375	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 152	226376	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 153	226377	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 154	226378	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 155	226379	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 156	226380	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 157	226381	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 158	226382	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 159	226383	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 160	226384	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 161	226385	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 162	226386	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 163	226387	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 164	226388	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 165	226389	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 166	226390	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 167	226391	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 168	226392	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 169 M.C.	226393	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 170	226394	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 171	226395	12/1/2014	Stikine Copper Limited	104G014	Liard
Galore Creek	G.C. 3 FR.	226396	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 5 FR.	226397	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 6 FR.	226398	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 7 FR.	226399	12/1/2014	Stikine Copper Limited	104G013	Liard

Galore Creek	G.C. 8 FR.	226400	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 9 FR.	226401	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 10 FR.	226402	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. #11 FR.	226403	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. #12 FR.	226404	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. #13 FR.	226405	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. #14 FR.	226406	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. #15 FR.	226407	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 172	226408	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	KENNCO G.C. 173	226409	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	KENNCO G.C. 174	226410	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	KENNCO G.C. 175	226411	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 176	226412	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 177	226413	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 178	226414	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 179	226415	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 180	226416	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 181	226417	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 182	226418	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 183	226419	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 184	226420	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 185	226421	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 186	226422	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 187	226423	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 188	226424	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 189	226425	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 190	226426	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 191	226427	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 192	226428	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 193	226429	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 194	226430	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 195	226431	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 196	226432	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 197	226433	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 198	226434	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 199	226435	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 200	226436	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 201	226437	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 202	226438	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 203	226439	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 204	226440	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 205	226441	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO G.C. 206	226442	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 207	226443	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 208	226444	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KENNCO GC 209	226445	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 210	226469	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 211	226470	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 212	226471	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 213	226472	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 214	226473	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 215	226474	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 216	226475	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 217	226476	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 218	226477	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 219	226478	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 220	226479	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 221	226480	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 222	226481	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 223	226482	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	G.C. 224	226483	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 225	226484	12/1/2014	Stikine Copper Limited	104G013	Liard

Galore Creek	GC 226	226485	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 227	226486	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 228	226487	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 229	226488	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 230	226489	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 231	226490	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 232	226491	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 233	226492	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 234	226493	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 235	226494	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 236	226495	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 237	226496	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	XGC 1 FRACTIONAL	226518	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 16 FRACTIONAL	226519	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 17 FRACTIONAL	226520	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	XGC 30	226521	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	XGC 32	226522	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	XGC 33	226523	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	XGC 69	226524	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	XGC 71	226525	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	XGC 73	226526	12/1/2014	Stikine Copper Limited	104G003	Liard
Galore Creek	XGC 110	226527	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 18 FR.	226548	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 19 FR.	226549	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 20 FR.	226550	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 21 FR.	226551	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 22 FR.	226552	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 23 FR.	226553	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 24 FR.	226554	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 25 FR.	226555	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 26 FR.	226556	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 28 FR.	226557	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 29 FR.	226558	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 27 FR.	226559	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 30 FR.	226560	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 31 FR.	226561	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 32 FR.	226562	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 33 FR.	226563	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 34 FR.	226564	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 35 FR.	226565	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	GC 36 FR.	226566	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	S.K.#1 FR	226633	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	S.K.#2 FR.	226634	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	SK NO. 3 FRACTION	226659	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KGC 240	387229	12/1/2014	Stikine Copper Limited	104G013	Liard
Galore Creek	KGC 241	387230	12/1/2014	Stikine Copper Limited	104G013	Liard

APPENDIX 2 - Lithologic Codes

TextCode	LITH	Description
S	SEDS	SEDIMENTARY ROCKS - Undivided
S1	SEDS	SEDIMENTARY ROCKS - Conglomerate
S2	SEDS	SEDIMENTARY ROCKS - Greywacke
S3	SEDS	SEDIMENTARY ROCKS - Siltstone
S4	SEDS	SEDIMENTARY ROCKS - Argillite
V	VOLC	VOLCANICS - Undivided
V1	VOLC	VOLCANICS - AUGITE-BEARING - Undivided
V1a	VOLC	VOLCANICS - AUGITE-BEARING - Flow
V1b	VOLC	VOLCANICS - AUGITE-BEARING - Porphyritic
V1c	VOLC	VOLCANICS - AUGITE-BEARING - Flow breccia
V1ab	VOLC	VOLCANICS - AUGITE-BEARING - Porphyritic Flow
V1e	VOLC	VOLCANICS - AUGITE-BEARING - Coarse Lapilli Tuff
V1f	VOLC	VOLCANICS - AUGITE-BEARING - Fine Lapilli Tuff
V1g	VOLC	VOLCANICS - AUGITE-BEARING - Ash tuff
V1ac	VOLC	VOLCANICS - AUGITE-BEARING - Flow breccias
V1e/h	VOLC	VOLCANICS - AUGITE-BEARING - Tuffs-Mixed/undifferentiated
V2	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Undivided
V2a	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Flow
V2b	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Porphyritic
V2ab	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Porphyritic Flow
V2c	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Flow breccias
V2e	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Coarse Lapilli Tuff
V2f	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Fine Lapilli Tuff
V2g	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Ash tuff
V2h	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Crystal Lithic Tuff
V2e/h	VOLC	VOLCANICS - PSEUDOLEUCITE-BEARING - Tuffs-Mixed/undifferentiated
V3	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Undivided
V3a	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Flow
V3b	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Porphyritic
V3ab	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Porphyritic Flow
V3a/f	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Flow/Fine Lapilli Tuff
V3e	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Coarse Lapilli Tuff
V3f	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Fine Lapilli Tuff
V3g	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Ash Tuff

TextCode	LITH	Description
V3h	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Crystal Lithic Tuff
V3e/h	VOLC	VOLCANICS - ORTHOCLASE-BEARING - Tuffs-Mixed/undifferentiated
V4	VOLC	VOLCANICS - MAFIC - Undivided
V4a	VOLC	VOLCANICS - MAFIC - Flow
V4b	VOLC	VOLCANICS - MAFIC - Porphyritic
V4ab	VOLC	VOLCANICS - MAFIC - Porphyritic Flow
V4d	VOLC	VOLCANICS - MAFIC - Breccias
V4e	VOLC	VOLCANICS - MAFIC - Coarse Lapilli Tuff
V4f	VOLC	VOLCANICS - MAFIC - Fine Lapilli Tuff
V4g	VOLC	VOLCANICS - MAFIC - Ash Tuff
V4h	VOLC	VOLCANICS - MAFIC - Crystal Lithic Tuff
V4e/h	VOLC	VOLCANICS - MAFIC - Tuffs-Mixed/undifferentiated
V5	VOLC	VOLCANICS - INTERMEDIATE - Undivided
V5a	VOLC	VOLCANICS - INTERMEDIATE - Flow
V5b	VOLC	VOLCANICS - INTERMEDIATE - Porphyritic
V5c	VOLC	VOLCANICS - INTERMEDIATE - Flow Breccias
V5d	VOLC	VOLCANICS - INTERMEDIATE - Breccias
V5e	VOLC	VOLCANICS - INTERMEDIATE - Coarse Lapilli Tuff
V5f	VOLC	VOLCANICS - INTERMEDIATE - Fine Lapilli Tuff
V5g	VOLC	VOLCANICS - INTERMEDIATE - Ash Tuff
V5h	VOLC	VOLCANICS - INTERMEDIATE - Crystal Lithic Tuff
V5Pyr	VOLC	VOLCANICS - INTERMEDIATE - Tuffs-Mixed/undifferentiated
V6	VOLC	VOLCANICS - FELSIC - Undivided
V6f	VOLC	VOLCANICS - FELSIC - Fine Lapilli Tuff
V6g	VOLC	VOLCANICS - FELSIC - Ash Tuff
i	INTR	INTRUSIVES - Undivided
i1	INTR	INTRUSIVES - Pseudoleucite Porphyry
i2	INTR	INTRUSIVES - Pseudoleucite Mega-Porphyry
i3	INTR	INTRUSIVES - Grey Syenite Porphyry
i4	INTR	INTRUSIVES - Dark Orthoclase Syenite
i4a	INTR	INTRUSIVES - Dark Orthoclase Syenite (early)
i4ab	INTR	INTRUSIVES - Dark Orthoclase Syenite (early/late)
i4b	INTR	INTRUSIVES - Dark Orthoclase Syenite (late)
i5	INTR	INTRUSIVES - ORTHOCLASE SYENITE MEGAPORPHYRY - Fine grained (early)
i9	INTR	INTRUSIVES - ORTHOCLASE SYENITE MEGAPORPHYRY - Medium grained
i9a	INTR	INTRUSIVES - ORTHOCLASE SYENITE MEGAPORPHYRY - Early

TextCode	LITH	Description
		Phase
i9ab	INTR	INTRUSIVES - ORTHOCLASE SYENITE MEGAPORPHYRY - Early/Late
i9b	INTR	INTRUSIVES - ORTHOCLASE SYENITE MEGAPORPHYRY - Late Phase
i6	INTR	INTRUSIVES - SYENITE - Fine Grained
i8	INTR	INTRUSIVES - SYENITE - Medium Grained
i8a	INTR	INTRUSIVES - SYENITE - Early Phase
i8b	INTR	INTRUSIVES - SYENITE - Early/Late
i7	INTR	INTRUSIVES - SYENITE PORPHYRY - Fine grained
i11	INTR	INTRUSIVES - SYENITE PORPHYRY - Medium grained
i11a	INTR	INTRUSIVES - SYENITE PORPHYRY - Early Phase
i7b	INTR	INTRUSIVES - SYENITE PORPHYRY - Late Phase
i10a	INTR	INTRUSIVES - PLAGIOCLASE SYENITE PORPHYRY
i10b	INTR	INTRUSIVES - PLAGIOCLASE SYENITE PORPHYRY - Late Phase
i12	INTR	INTRUSIVES - LAVENDER SYENITE PORPHYRY
B	BREC	BRECCIAS
B1	BREC	BRECCIAS - DIATREME
B1a	BREC	BRECCIAS - DIATREME - Monolithic
B1b	BREC	BRECCIAS - DIATREME - Heterolithic
B2	BREC	BRECCIAS - HYDROTHERMAL
B2a	BREC	BRECCIAS - HYDROTHERMAL - Monolithic
B2b	BREC	BRECCIAS - HYDROTHERMAL - Heterolithic
B3	BREC	BRECCIAS - ORTHOMAGMATIC
B3a	BREC	BRECCIAS - ORTHOMAGMATIC - Monolithic
B3b	BREC	BRECCIAS - ORTHOMAGMATIC - Heterolithic
D	DYKE	DIKES
D1	DYKE	DIKES - Lamprophyre
D2	DYKE	DIKES - Mafic
D3	DYKE	DIKES - Intermediate
D4	DYKE	DIKES - Felsic
FZN	FAUL	Fault Zone
OVB	OVBD	Overburden
NR	999	Ro Return
7a	INTR	1990 Rock Type - Compares to CCPo
7b	INTR	1990 Rock Type - Compares to CCPo
7c	INTR	1990 Rock Type - Compares to CCPo
7d	INTR	1990 Rock Type - Compares to CCPo

TextCode	LITH	Description
7e	INTR	1990 Rock Type - Compares to CCPo
7f	INTR	1990 Rock Type - Compares to CCPo
8	INTR	1990 Rock Type - Compares to CCPp
9a	INTR	1990 Rock Type - Compares to CCPp
9c	INTR	1990 Rock Type - Compares to CCPp
9d	INTR	1990 Rock Type - Compares to CCPp
9e	INTR	1990 Rock Type - Compares to CCPp
10a	VOLC	1990 Rock Type - Compares to V2a
10b	INTR	1990 Rock Type - Compares to CCPp
11	BREC	1990 Rock Type - Compares to B3b
11a	BREC	1990 Rock Type - Compares to B3b
11b	BREC	1990 Rock Type - Compares to B3b
15c	INTR	1990 Rock Type - Compares to CCPo
17a	INTR	1990 Rock Type - Compares to i4
17b	INTR	1990 Rock Type - Compares to i4
17d	INTR	1990 Rock Type - Compares to i
20	DYKE	1990 Rock Type - Compares to D4
21	DYKE	1990 Rock Type - Compares to D4
CCPo	INTR	Orthoclase-Pseudoleucite syenite porphyry
CCPp	INTR	Pseudoleucite-Orthoclase syenite porphyry
i5p	INTR	Pseudoleucite-bearing K-spar porphyry dikes
14a	INTR	1990 Rock Type - Compares to CCPp
15e	INTR	1990 Rock Type - Compares to CCPo
S5	SEDS	Sedimentary rocks - Limestone
S6	SEDS	Sedimentary Rocks - Epiclastic sediments
S7	SEDS	Sedimentary Rocks - Diamictite

APPENDIX 3

GRADE-TONNAGE TABLES FOR RESOURCE ESTIMATES CENTRAL, SOUTHWEST, JUNCTION, WEST FORK ZONES

CENTRAL ZONE MEASURED PLUS INDICATED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	910,600,000	0.369	0.186	2.989	0.471	7409.051	5.445	87.51
0.15	769,600,000	0.421	0.210	3.372	0.535	7144.235	5.196	83.43
0.20	653,200,000	0.472	0.234	3.765	0.600	6798.244	4.914	79.07
0.25	558,300,000	0.522	0.257	4.128	0.664	6426.089	4.613	74.10
0.30	485,200,000	0.569	0.280	4.417	0.722	6087.538	4.368	68.90
0.35	423,900,000	0.614	0.302	4.681	0.780	5739.055	4.116	63.80
0.40	371,800,000	0.658	0.326	4.949	0.837	5394.409	3.897	59.16
0.45	328,900,000	0.698	0.350	5.185	0.891	5062.067	3.701	54.83
0.50	290,100,000	0.738	0.376	5.421	0.947	4720.768	3.507	50.56
0.55	256,000,000	0.778	0.405	5.647	1.003	4391.654	3.333	46.48
0.60	225,400,000	0.818	0.435	5.864	1.061	4065.517	3.152	42.50
0.65	198,800,000	0.858	0.467	6.090	1.120	3761.077	2.985	38.92
0.70	175,500,000	0.897	0.500	6.292	1.179	3471.188	2.821	35.50
0.75	155,700,000	0.935	0.536	6.468	1.237	3210.028	2.683	32.38
0.80	138,600,000	0.971	0.571	6.658	1.294	2967.502	2.544	29.67
0.85	123,900,000	1.006	0.607	6.834	1.350	2748.387	2.418	27.22
0.90	111,200,000	1.039	0.645	6.983	1.404	2547.586	2.306	24.97
0.95	100,100,000	1.069	0.684	7.107	1.458	2359.502	2.201	22.87
1.00	90,100,000	1.100	0.724	7.257	1.511	2185.376	2.097	21.02
1.10	72,200,000	1.166	0.809	7.544	1.626	1856.284	1.878	17.51
1.20	58,100,000	1.233	0.896	7.857	1.741	1579.602	1.674	14.68
1.30	47,500,000	1.299	0.978	8.160	1.852	1360.540	1.494	12.46
1.40	38,460,000	1.367	1.069	8.495	1.971	1159.275	1.322	10.50
1.50	31,090,000	1.440	1.162	8.811	2.095	987.170	1.161	8.81

CENTRAL ZONE INFERRED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	644,300,000	0.233	0.143	1.958	0.310	3310.188	2.962	40.56
0.15	498,900,000	0.275	0.166	2.268	0.365	3025.205	2.663	36.38
0.20	368,500,000	0.327	0.195	2.644	0.432	2657.014	2.310	31.32
0.25	281,500,000	0.377	0.221	2.936	0.497	2340.067	2.000	26.57
0.30	221,100,000	0.423	0.249	3.180	0.559	2062.233	1.770	22.61

0.35	173,600,000	0.467	0.283	3.425	0.623	1787.620	1.580	19.12
0.40	140,800,000	0.508	0.313	3.674	0.681	1577.157	1.417	16.63
0.45	117,700,000	0.539	0.344	3.826	0.732	1398.859	1.302	14.48
0.50	96,000,000	0.576	0.380	4.085	0.790	1219.277	1.173	12.61
0.55	78,300,000	0.611	0.424	4.239	0.851	1054.901	1.067	10.67
0.60	65,700,000	0.641	0.464	4.358	0.903	928.607	0.980	9.21
0.65	54,600,000	0.673	0.508	4.532	0.960	810.245	0.892	7.96
0.70	46,400,000	0.697	0.554	4.589	1.011	713.115	0.826	6.85
0.75	38,300,000	0.723	0.615	4.750	1.071	610.584	0.757	5.85
0.80	32,400,000	0.741	0.679	4.816	1.126	529.385	0.707	5.02
0.85	28,000,000	0.750	0.741	4.977	1.174	463.050	0.667	4.48
0.90	24,000,000	0.758	0.813	5.053	1.223	401.134	0.627	3.90
0.95	20,300,000	0.767	0.893	5.110	1.278	343.321	0.583	3.34
1.00	18,200,000	0.781	0.929	5.193	1.312	313.423	0.544	3.04
1.10	12,800,000	0.840	1.020	5.593	1.420	237.082	0.420	2.30
1.20	10,500,000	0.877	1.066	5.758	1.481	203.047	0.360	1.94
1.30	7,700,000	0.936	1.119	5.972	1.565	158.919	0.277	1.48
1.40	6,010,000	0.959	1.189	6.050	1.626	127.087	0.230	1.17
1.50	3,770,000	1.011	1.290	6.428	1.735	84.043	0.156	0.78

SOUTHWEST ZONE MEASURED PLUS INDICATED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	97,000,000	0.273	0.489	2.380	0.581	583.906	1.525	7.42
0.15	81,800,000	0.313	0.559	2.542	0.665	564.555	1.470	6.69
0.20	71,700,000	0.344	0.618	2.672	0.735	543.859	1.425	6.16
0.25	61,400,000	0.380	0.691	2.827	0.821	514.471	1.364	5.58
0.30	53,700,000	0.414	0.758	2.921	0.899	490.211	1.309	5.04
0.35	47,700,000	0.447	0.818	3.041	0.972	470.148	1.254	4.66
0.40	42,300,000	0.482	0.883	3.231	1.048	449.569	1.201	4.39
0.45	37,700,000	0.518	0.946	3.390	1.124	430.606	1.147	4.11
0.50	34,100,000	0.553	1.005	3.523	1.194	415.803	1.102	3.86
0.55	31,200,000	0.584	1.056	3.662	1.254	401.769	1.059	3.67
0.60	28,300,000	0.622	1.117	3.807	1.325	388.137	1.016	3.46
0.65	26,300,000	0.653	1.162	3.916	1.379	378.684	0.983	3.31
0.70	24,400,000	0.681	1.210	4.036	1.434	366.392	0.949	3.17
0.75	22,900,000	0.703	1.252	4.133	1.479	354.976	0.922	3.04
0.80	21,300,000	0.732	1.300	4.275	1.534	343.795	0.890	2.93
0.85	20,100,000	0.753	1.338	4.362	1.576	333.733	0.865	2.82
0.90	18,900,000	0.780	1.374	4.479	1.619	325.061	0.835	2.72
0.95	17,500,000	0.805	1.424	4.626	1.673	310.629	0.801	2.60
1.00	16,100,000	0.843	1.477	4.787	1.738	299.269	0.765	2.48

1.10	13,800,000	0.899	1.577	5.011	1.849	273.557	0.700	2.22
1.20	12,300,000	0.928	1.669	5.214	1.935	251.688	0.660	2.06
1.30	10,900,000	0.960	1.763	5.471	2.022	230.731	0.618	1.92
1.40	9,380,000	0.998	1.882	5.756	2.134	206.415	0.568	1.74
1.50	8,020,000	1.025	2.029	5.991	2.249	181.262	0.523	1.54

SOUTHWEST ZONE INFERRED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	405,500,000	0.168	0.274	1.951	0.345	1502.134	3.572	25.44
0.15	311,100,000	0.201	0.323	2.060	0.412	1378.811	3.231	20.60
0.20	235,200,000	0.234	0.388	2.097	0.488	1213.561	2.934	15.86
0.25	181,800,000	0.264	0.453	2.142	0.567	1058.294	2.648	12.52
0.30	149,600,000	0.287	0.505	2.179	0.629	946.721	2.429	10.48
0.35	122,900,000	0.314	0.556	2.274	0.695	850.923	2.197	8.99
0.40	99,800,000	0.346	0.613	2.384	0.770	761.404	1.967	7.65
0.45	84,100,000	0.377	0.661	2.503	0.835	699.111	1.787	6.77
0.50	72,100,000	0.407	0.706	2.617	0.895	647.051	1.637	6.07
0.55	63,400,000	0.433	0.744	2.704	0.946	605.321	1.517	5.51
0.60	56,000,000	0.455	0.783	2.782	0.995	561.834	1.410	5.01
0.65	49,100,000	0.478	0.825	2.868	1.047	517.509	1.302	4.53
0.70	43,100,000	0.505	0.867	2.956	1.098	479.929	1.201	4.10
0.75	38,200,000	0.531	0.906	3.041	1.147	447.267	1.113	3.73
0.80	34,300,000	0.556	0.940	3.099	1.189	420.511	1.037	3.42
0.85	30,900,000	0.576	0.971	3.149	1.228	392.455	0.965	3.13
0.90	25,000,000	0.630	1.013	3.166	1.313	347.288	0.814	2.54
0.95	21,400,000	0.672	1.051	3.248	1.379	317.097	0.723	2.23
1.00	18,400,000	0.714	1.092	3.245	1.445	289.684	0.646	1.92
1.10	14,300,000	0.774	1.160	3.359	1.557	244.054	0.533	1.54
1.20	11,800,000	0.811	1.228	3.410	1.642	211.014	0.466	1.29
1.30	9,300,000	0.835	1.336	3.482	1.749	171.229	0.399	1.04
1.40	7,610,000	0.855	1.421	3.629	1.838	143.469	0.348	0.89
1.50	5,520,000	0.851	1.578	3.735	1.985	103.580	0.280	0.66

GALORE CREEK - JUNCTION MEASURED PLUS INDICATED RESOURCE

Cutoff CuEq %	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			

0.10	139,700,000	0.226	0.165	1.957	0.319	696.17	0.74	8.79
0.15	93,700,000	0.294	0.213	2.472	0.414	607.43	0.64	7.45
0.20	60,900,000	0.387	0.276	3.237	0.545	519.68	0.54	6.34
0.25	45,800,000	0.460	0.328	3.738	0.652	464.55	0.48	5.50
0.30	38,400,000	0.511	0.361	4.173	0.725	432.67	0.45	5.15
0.35	30,000,000	0.589	0.412	4.777	0.837	389.62	0.40	4.61
0.40	24,500,000	0.668	0.453	5.362	0.942	360.87	0.36	4.22
0.45	20,800,000	0.736	0.485	5.945	1.032	337.56	0.32	3.98
0.50	18,300,000	0.794	0.513	6.344	1.110	320.39	0.30	3.73
0.55	16,100,000	0.859	0.534	6.862	1.188	304.95	0.28	3.55
0.60	14,000,000	0.932	0.562	7.414	1.281	287.71	0.25	3.34
0.65	12,200,000	1.018	0.584	8.104	1.382	273.85	0.23	3.18
0.70	11,100,000	1.075	0.599	8.598	1.450	263.11	0.21	3.07
0.75	10,300,000	1.121	0.614	8.851	1.505	254.60	0.20	2.93
0.80	9,300,000	1.190	0.628	9.305	1.580	244.03	0.19	2.78
0.85	8,800,000	1.220	0.652	9.702	1.627	236.73	0.18	2.74
0.90	8,100,000	1.270	0.676	10.040	1.693	226.83	0.18	2.61
0.95	7,600,000	1.305	0.692	10.320	1.738	218.69	0.17	2.52
1.00	7,100,000	1.347	0.713	10.617	1.795	210.88	0.16	2.42
1.10	6,200,000	1.431	0.745	11.081	1.900	195.63	0.15	2.21
1.20	5,600,000	1.492	0.778	11.680	1.985	184.23	0.14	2.10
1.30	5,000,000	1.564	0.810	12.267	2.079	172.43	0.13	1.97
1.40	4,400,000	1.624	0.859	12.848	2.173	157.56	0.12	1.82
1.50	3,700,000	1.716	0.920	13.799	2.307	140.00	0.11	1.64

GALORE CREEK - JUNCTION INFERRED RESOURCE

Cutoff CuEq %	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	423,300,000	0.205	0.122	1.467	0.268	1913.42	1.66	19.96
0.15	286,400,000	0.259	0.149	1.774	0.336	1635.62	1.37	16.33
0.20	185,400,000	0.330	0.181	2.253	0.425	1349.06	1.08	13.43
0.25	135,500,000	0.386	0.214	2.534	0.500	1153.28	0.93	11.04
0.30	98,000,000	0.449	0.260	2.827	0.588	970.24	0.82	8.91
0.35	71,600,000	0.532	0.286	3.334	0.685	839.91	0.66	7.67
0.40	55,300,000	0.607	0.310	3.741	0.776	740.15	0.55	6.65
0.45	42,200,000	0.691	0.347	4.185	0.886	642.98	0.47	5.68
0.50	34,600,000	0.759	0.381	4.559	0.977	579.06	0.42	5.07
0.55	29,200,000	0.824	0.410	4.927	1.060	530.54	0.38	4.63
0.60	25,000,000	0.886	0.439	5.314	1.142	488.41	0.35	4.27
0.65	21,100,000	0.980	0.448	5.850	1.240	455.95	0.30	3.97
0.70	18,600,000	1.042	0.466	6.152	1.315	427.36	0.28	3.68

0.75	17,100,000	1.083	0.481	6.385	1.366	408.35	0.26	3.51
0.80	15,700,000	1.127	0.496	6.568	1.420	390.15	0.25	3.32
0.85	14,300,000	1.175	0.510	6.782	1.477	370.50	0.23	3.12
0.90	12,600,000	1.237	0.539	7.170	1.558	343.68	0.22	2.90
0.95	11,300,000	1.294	0.563	7.399	1.629	322.42	0.20	2.69
1.00	10,500,000	1.334	0.588	7.533	1.686	308.85	0.20	2.54
1.10	8,700,000	1.427	0.634	8.042	1.810	273.75	0.18	2.25
1.20	7,500,000	1.506	0.670	8.540	1.913	249.05	0.16	2.06
1.30	6,800,000	1.563	0.699	8.675	1.988	234.36	0.15	1.90
1.40	5,700,000	1.649	0.749	8.780	2.103	207.25	0.14	1.61
1.50	4,900,000	1.723	0.803	9.041	2.212	186.16	0.13	1.42

WEST FORK ZONE MEASURED PLUS INDICATED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	38,200,000	0.306	0.221	2.748	0.429	257.747	0.271	3.37
0.15	30,100,000	0.369	0.257	3.193	0.512	244.907	0.249	3.09
0.20	23,700,000	0.437	0.298	3.708	0.604	228.370	0.227	2.83
0.25	19,600,000	0.497	0.330	4.162	0.684	214.793	0.208	2.62
0.30	16,900,000	0.544	0.358	4.524	0.748	202.719	0.195	2.46
0.35	15,100,000	0.580	0.379	4.793	0.798	193.114	0.184	2.33
0.40	13,400,000	0.622	0.399	5.086	0.851	183.782	0.172	2.19
0.45	12,200,000	0.654	0.417	5.344	0.896	175.933	0.164	2.10
0.50	10,800,000	0.694	0.438	5.675	0.949	165.269	0.152	1.97
0.55	9,400,000	0.738	0.462	6.056	1.011	152.965	0.140	1.83
0.60	8,300,000	0.782	0.482	6.457	1.070	143.118	0.129	1.72
0.65	7,500,000	0.819	0.502	6.807	1.121	135.442	0.121	1.64
0.70	6,700,000	0.854	0.518	7.158	1.169	126.166	0.112	1.54
0.75	6,200,000	0.881	0.530	7.474	1.206	120.442	0.106	1.49
0.80	5,400,000	0.928	0.552	7.947	1.268	110.497	0.096	1.38
0.85	4,800,000	0.980	0.570	8.408	1.328	103.723	0.088	1.30
0.90	4,200,000	1.026	0.592	8.896	1.391	95.018	0.080	1.20
0.95	3,700,000	1.072	0.611	9.315	1.452	87.459	0.073	1.11
1.00	3,300,000	1.118	0.631	9.930	1.514	81.351	0.067	1.05
1.10	2,600,000	1.221	0.657	10.775	1.634	70.000	0.055	0.90
1.20	1,900,000	1.368	0.725	11.949	1.824	57.312	0.044	0.73
1.30	1,300,000	1.599	0.777	13.266	2.090	45.835	0.032	0.55
1.40	860,000	1.952	0.785	13.733	2.445	37.016	0.022	0.38
1.50	530,000	2.468	0.930	18.053	3.073	28.842	0.016	0.31

WEST FORK ZONE INFERRED RESOURCE

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	216,900,000	0.186	0.173	2.116	0.278	889.572	1.206	14.76
0.15	137,700,000	0.253	0.207	2.754	0.367	768.180	0.916	12.19
0.20	93,600,000	0.324	0.245	3.410	0.458	668.697	0.737	10.26
0.25	72,800,000	0.373	0.275	3.869	0.526	598.755	0.644	9.06
0.30	57,900,000	0.417	0.304	4.377	0.591	532.382	0.566	8.15
0.35	45,400,000	0.466	0.339	4.986	0.665	466.499	0.495	7.28
0.40	38,700,000	0.499	0.364	5.451	0.716	425.814	0.453	6.78
0.45	33,800,000	0.527	0.384	5.841	0.757	392.768	0.417	6.35
0.50	29,700,000	0.553	0.403	6.181	0.797	362.151	0.385	5.90
0.55	26,200,000	0.573	0.424	6.633	0.833	331.028	0.357	5.59
0.60	22,800,000	0.595	0.445	7.111	0.871	299.130	0.326	5.21
0.65	20,500,000	0.614	0.459	7.423	0.900	277.543	0.303	4.89
0.70	17,900,000	0.634	0.477	7.838	0.933	250.237	0.275	4.51
0.75	15,900,000	0.648	0.492	8.159	0.959	227.186	0.252	4.17
0.80	12,100,000	0.699	0.505	8.552	1.017	186.497	0.196	3.33
0.85	9,300,000	0.746	0.524	8.980	1.076	152.978	0.157	2.69
0.90	7,600,000	0.781	0.544	9.199	1.122	130.880	0.133	2.25
0.95	6,100,000	0.815	0.567	9.694	1.171	109.622	0.111	1.90
1.00	4,900,000	0.841	0.603	9.948	1.219	90.866	0.095	1.57
1.10	3,200,000	0.866	0.695	10.981	1.306	61.105	0.072	1.13
1.20	2,000,000	0.872	0.808	13.201	1.399	38.455	0.052	0.85
1.30	800,000	1.161	0.778	12.864	1.659	20.480	0.020	0.33
1.40	350,000	1.496	0.840	15.476	2.045	11.545	0.009	0.17
1.50	100,000	3.150	0.855	15.275	3.694	6.946	0.003	0.05

APPENDIX 4 - GRADE-TONNAGE TABLES FOR RESOURCE ESTIMATES INVERSE DISTANCE SQUARED RESOURCE ESTIMATES CENTRAL and JUNCTION ZONES

CENTRAL ZONE MEASURED PLUS INDICATED RESOURCE BY IDSQ

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	900,500,000	0.379	0.190	3.077	0.483	7525.433	5.501	89.08
0.15	764,400,000	0.430	0.214	3.466	0.547	7247.659	5.259	85.18
0.20	642,200,000	0.486	0.241	3.906	0.618	6882.008	4.976	80.65
0.25	554,500,000	0.536	0.264	4.267	0.681	6553.525	4.706	76.07
0.30	489,300,000	0.578	0.285	4.544	0.735	6236.080	4.483	71.48
0.35	427,500,000	0.625	0.307	4.844	0.794	5891.484	4.220	66.58
0.40	373,700,000	0.672	0.331	5.127	0.855	5537.337	3.977	61.60
0.45	331,100,000	0.714	0.355	5.368	0.910	5212.739	3.779	57.14
0.50	294,900,000	0.754	0.380	5.602	0.964	4902.919	3.603	53.11
0.55	261,300,000	0.794	0.407	5.853	1.020	4574.762	3.419	49.17
0.60	230,800,000	0.835	0.438	6.065	1.079	4249.432	3.250	45.00
0.65	204,500,000	0.874	0.470	6.280	1.138	3941.063	3.090	41.29
0.70	180,100,000	0.915	0.507	6.509	1.201	3633.653	2.936	37.69
0.75	162,000,000	0.950	0.539	6.689	1.254	3393.495	2.807	34.84
0.80	143,800,000	0.990	0.575	6.908	1.315	3139.082	2.658	31.94
0.85	128,800,000	1.024	0.613	7.074	1.372	2908.201	2.538	29.29
0.90	115,000,000	1.060	0.654	7.267	1.431	2687.895	2.418	26.87
0.95	103,700,000	1.093	0.693	7.446	1.487	2499.237	2.310	24.83
1.00	92,700,000	1.130	0.736	7.605	1.548	2309.760	2.194	22.67
1.10	75,100,000	1.196	0.826	7.832	1.665	1980.522	1.994	18.91
1.20	61,300,000	1.267	0.909	8.113	1.782	1712.560	1.791	15.99
1.30	50,900,000	1.326	0.996	8.444	1.890	1488.229	1.630	13.82
1.40	41,830,000	1.393	1.087	8.826	2.008	1284.836	1.462	11.87
1.50	34,440,000	1.457	1.191	9.025	2.128	1106.449	1.319	9.99

CENTRAL ZONE INFERRED RESOURCE BY IDSQ

Cutoff (CuEq %)	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	642,900,000	0.239	0.144	1.995	0.317	3388.051	2.976	41.24
0.15	498,900,000	0.283	0.168	2.317	0.373	3113.211	2.695	37.16
0.20	375,600,000	0.333	0.196	2.688	0.438	2757.899	2.367	32.46
0.25	286,900,000	0.385	0.222	2.980	0.505	2435.566	2.048	27.49
0.30	233,900,000	0.426	0.243	3.170	0.557	2197.093	1.827	23.84

0.35	188,300,000	0.468	0.269	3.409	0.613	1943.143	1.629	20.64
0.40	143,800,000	0.526	0.301	3.816	0.688	1667.836	1.392	17.64
0.45	119,400,000	0.564	0.329	4.058	0.742	1484.882	1.263	15.58
0.50	99,700,000	0.599	0.359	4.337	0.794	1316.833	1.151	13.90
0.55	83,800,000	0.631	0.391	4.510	0.845	1165.955	1.053	12.15
0.60	69,600,000	0.660	0.436	4.610	0.900	1012.889	0.976	10.32
0.65	57,800,000	0.688	0.486	4.708	0.958	876.849	0.903	8.75
0.70	47,800,000	0.713	0.543	4.819	1.016	751.495	0.834	7.41
0.75	41,000,000	0.734	0.591	4.921	1.065	663.573	0.779	6.49
0.80	33,900,000	0.762	0.649	5.069	1.127	569.591	0.707	5.52
0.85	28,900,000	0.783	0.704	5.210	1.179	498.963	0.654	4.84
0.90	24,600,000	0.799	0.769	5.278	1.233	433.402	0.608	4.17
0.95	20,600,000	0.813	0.845	5.385	1.292	369.289	0.560	3.57
1.00	18,100,000	0.824	0.903	5.424	1.336	328.863	0.525	3.16
1.10	13,200,000	0.858	1.039	5.723	1.447	249.729	0.441	2.43
1.20	9,600,000	0.919	1.140	6.063	1.562	194.534	0.352	1.87
1.30	8,500,000	0.938	1.183	6.138	1.604	175.805	0.323	1.68
1.40	7,050,000	0.949	1.254	6.201	1.653	147.524	0.284	1.41
1.50	4,340,000	1.056	1.309	6.598	1.784	101.056	0.183	0.92

GALORE CREEK - JUNCTION MEASURED PLUS INDICATED RESOURCE
INVERSE DISTANCE SQUARED

Cutoff CuEq %	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	135,200,000	0.235	0.172	1.968	0.332	700.57	0.75	8.55
0.15	91,900,000	0.305	0.221	2.453	0.429	618.05	0.65	7.25
0.20	60,300,000	0.398	0.288	3.245	0.563	529.19	0.56	6.29
0.25	46,900,000	0.466	0.334	3.689	0.660	481.91	0.50	5.56
0.30	39,600,000	0.515	0.368	4.046	0.731	449.69	0.47	5.15
0.35	33,500,000	0.567	0.405	4.420	0.806	418.83	0.44	4.76
0.40	27,000,000	0.642	0.451	4.972	0.910	382.21	0.39	4.32
0.45	23,500,000	0.694	0.481	5.404	0.983	359.61	0.36	4.08
0.50	19,600,000	0.778	0.508	6.222	1.086	336.24	0.32	3.92
0.55	17,200,000	0.843	0.528	6.746	1.164	319.72	0.29	3.73
0.60	14,900,000	0.916	0.551	7.302	1.252	300.95	0.26	3.50
0.65	12,800,000	1.008	0.575	8.011	1.359	284.50	0.24	3.30
0.70	11,500,000	1.073	0.592	8.516	1.434	272.09	0.22	3.15
0.75	10,500,000	1.131	0.604	8.910	1.499	261.85	0.20	3.01
0.80	9,300,000	1.217	0.627	9.453	1.597	249.56	0.19	2.83
0.85	8,600,000	1.265	0.653	9.937	1.662	239.88	0.18	2.75

0.90	7,900,000	1.320	0.669	10.354	1.727	229.94	0.17	2.63
0.95	7,400,000	1.366	0.687	10.655	1.785	222.89	0.16	2.53
1.00	7,000,000	1.410	0.695	10.962	1.834	217.63	0.16	2.47
1.10	6,200,000	1.483	0.725	11.549	1.925	202.74	0.14	2.30
1.20	5,500,000	1.573	0.757	12.123	2.036	190.77	0.13	2.14
1.30	4,800,000	1.646	0.798	12.733	2.137	174.21	0.12	1.97
1.40	4,200,000	1.732	0.850	13.435	2.256	160.40	0.11	1.81
1.50	3,700,000	1.815	0.887	13.838	2.362	148.08	0.11	1.65

GALORE CREEK - JUNCTION INFERRED RESOURCE
INVERSE DISTANCE SQUARED

Cutoff CuEq %	Tonnes > Cutoff (tonnes)	Grade > Cutoff				Million lbs. of Cu	Million Ozs of Au	Million Ozs of Ag
		Cu (%)	Au (g/t)	Ag (g/t)	CuEq (%)			
0.10	408,900,000	0.216	0.129	1.480	0.283	1947.51	1.70	19.46
0.15	282,300,000	0.273	0.157	1.772	0.353	1699.35	1.42	16.08
0.20	185,300,000	0.346	0.192	2.358	0.447	1413.71	1.14	14.05
0.25	137,400,000	0.405	0.225	2.616	0.526	1227.02	0.99	11.56
0.30	115,300,000	0.441	0.247	2.771	0.574	1121.18	0.92	10.27
0.35	87,000,000	0.493	0.297	3.054	0.655	945.75	0.83	8.54
0.40	68,000,000	0.546	0.342	3.373	0.735	818.67	0.75	7.37
0.45	57,200,000	0.587	0.370	3.575	0.794	740.36	0.68	6.57
0.50	35,600,000	0.766	0.393	4.842	0.987	601.29	0.45	5.54
0.55	29,200,000	0.856	0.413	5.444	1.090	551.14	0.39	5.11
0.60	25,200,000	0.922	0.436	5.888	1.172	512.32	0.35	4.77
0.65	22,800,000	0.968	0.453	6.173	1.229	486.65	0.33	4.53
0.70	20,800,000	1.015	0.467	6.391	1.285	465.52	0.31	4.27
0.75	18,500,000	1.073	0.483	6.643	1.353	437.70	0.29	3.95
0.80	16,500,000	1.138	0.497	6.967	1.426	414.03	0.26	3.70
0.85	14,400,000	1.222	0.502	7.269	1.511	388.01	0.23	3.37
0.90	13,100,000	1.275	0.517	7.469	1.573	368.29	0.22	3.15
0.95	12,300,000	1.309	0.533	7.594	1.616	355.02	0.21	3.00
1.00	11,400,000	1.353	0.551	7.661	1.671	340.10	0.20	2.81
1.10	9,600,000	1.439	0.592	8.008	1.781	304.61	0.18	2.47
1.20	8,000,000	1.548	0.626	8.448	1.911	273.07	0.16	2.17
1.30	6,700,000	1.642	0.679	8.809	2.037	242.58	0.15	1.90
1.40	5,800,000	1.725	0.712	9.085	2.140	220.61	0.13	1.69
1.50	5,000,000	1.822	0.756	9.006	2.261	200.88	0.12	1.45