

**TECHNICAL REPORT  
GS-11b 43-101F1**

**2011 UPDATE REPORT ON THE GEOLOGY AND MINERALIZATION AND  
MINERAL RESOURCE ESTIMATE FOR THE GOLDEN SUMMIT PROJECT,  
FAIRBANKS MINING DISTRICT, ALASKA**

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January 26<sup>th</sup>, 2012

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## **1. Summary**

The Golden Summit property is located about 20mi northeast of Fairbanks, Alaska. The property consists of a mix of patented and unpatented Federal lode claims and State of Alaska mining claims controlled by Freegold Recovery Inc., USA, and Freegold Ventures Limited, USA (herein “Freegold” or “the company”). Freegold controls the claims through lease agreements with several claim owners, and through direct ownership of several patented Federal lode claims in the north central portion of the property. Access to the property is excellent, as is infrastructure support for exploration activities. All claim holdings comprising the property are in good standing, and no encumbrances to future mining activities are known or anticipated. Several historic gold mines are located on the property, and open pit gold mining is ongoing at the nearby Ft Knox gold deposit. Freegold acquired interest in the property in 1990, and since that time has conducted extensive surface exploration at numerous prospects over much of the property, including reconnaissance rock sampling, mapping, property-wide grid-based soil sampling, and several trenching projects at key prospects. Most of Freegold’s drilling efforts have been focused on the west portion of the property. Freegold conducted drilling on the Dolphin gold deposit in 1995-1996, 1998, 2004, 2008 and 2011.

Gold mineralization is the only type of economic mineralization known on the Golden Summit property at this time. Gold mineralization on the property occurs in three main forms, including 1) intrusive-hosted sulfide-quartz stockwork veinlets (such as the Dolphin gold deposit), 2) auriferous sulfide-quartz veins (exploited by historic underground mines), and 3) shear-hosted gold-bearing veinlets. All three types are considered to be part of a large-scale intrusive-related gold system (or “IRGS”) on the property. The Dolphin gold deposit is hosted in the Dolphin stock, which consists largely of granodiorite and tonalite, similar to the Pedro Dome pluton. It is the only known large intrusive body known on the property at this time. The Dolphin stock is approximately the same age as the nearby Ft Knox pluton, which hosts the Ft Knox gold deposit. Freegold made the initial discovery of widespread low-grade gold mineralization in the Dolphin stock during the initial drilling campaign on the prospect in 1995. Freegold is also focusing on exploration large zones of shear-hosted gold-bearing veinlets, including several zones in the Cleary Hill Mine area. These types of zones also occur at the Too Much Gold prospect and at the Circle Trail and Saddle prospects.

In March 2011 a preliminary gold resource for the Dolphin gold deposit, using kriging methods, was estimated using pre-2011 drill results. This evaluation, using a 0.3g/t cut-off, outlined a gold resource estimate of 7,790,000 tonnes at 0.695g/t indicated, and 27,010,000 tonnes at 0.606g/t inferred, for a total of approximately 700,000 contained ounces gold. Resource drilling on the deposit during 2011 added 18,927.5ft in 26 additional drill holes. The new drill data was added to the existing resource data base, and a new resource estimate was completed in November 2011 (discussed in this report). The new gold resource estimate for the Dolphin deposit, utilizing a 0.3g/t cut-off, is 17,270,000 tonnes at 0.62g/t “indicated” (341,000 ounces) and 64,440,000 tonnes at 0.55g/t “inferred” (1,135,000 ounces).

It is recommended that drilling be continued in the Dolphin gold resource and Cleary Hill Mine areas; proposed drill holes are shown in Figure 26.1. The geology of the deposit is still poorly understood largely due to lack of exposure, insufficient core drilling, and insufficient dedication towards developing a geologic model.



Continued core drilling on the Golden Summit property should be designed to:

1. Increase the Dolphin gold resource by a) drilling deeper holes in the central portion of the deposit, b) drilling shallow to moderate depth holes in un-tested areas adjacent to the south and east portions of the deposit, and c) drilling a limited number of exploration drill holes in locations more distal to the resource. These exploration drill holes should target areas where gold-bismuth anomalous soils are known to the south of the deposit and on the west side of Willow Creek, and areas where IP/resistivity survey data suggests the presence of possible shallow intrusive rocks to the southeast of the deposit.
2. Move more ounces into the “drill-indicated” category by drilling strategically located infill drill holes.
3. Evaluate potential bulk tonnage gold mineralization associated with large zones of shear-hosted veinlets. Specific target areas with the greatest potential include the F1, Wackwitz-Curry and Beistline zones in the Cleary Hill Mine area, and the Scheuymeyer zone in the Tolovana Mine area.
4. Expand the Dolphin resource area towards the northeast to eventually connect with potential resource areas associated with shear-hosted veinlet zones including the Wackwitz-Curry, Colorado and F1 zones.
5. Drill additional drill holes on the Christina vein prospect to begin evaluating this high grade auriferous quartz vein target and underground mine potential.
6. Drill additional drill holes on the Too Much Gold prospect, and use and combine these drill results with past drill results to estimate gold resources in this area.

During 2012 a first phase drilling program should focus on objectives 1 and 2 discussed above. The estimated cost of the first phase drilling program is US \$2,000,000. A second phase drilling program should focus on objectives 3 and 4 discussed above. The estimated cost of the second phase drilling program is US \$2,000,000; this drilling phase is not contingent on phase 1 drilling results and could be conducted concurrently. A third phase drilling program should focus on objectives 5 and 6 discussed above. The estimated cost of the third phase drilling program is US \$2,000,000; this drilling phase is not contingent on either phase 1 or 2 drilling results and could be conducted concurrently.

## **2. Introduction**

The following report was commissioned by Freegold to summarize the geology and mineralization on the Golden Summit property in the Fairbanks Mining District, Alaska. This report is Claims comprising the property are controlled by Freegold through lease agreements with various claim owners and through direct ownership. Mr. Adams has conducted many field programs on the property starting in 1988. Mr. Giroux has not inspected the property, but this was deemed unnecessary since his participation has been limited to preparation of the mineral resource and reserve estimates. This report was prepared using information and data in unpublished reports describing these programs, and in published reports describing the geology in this part of the district. Recommended work programs are included at the end of this report.

Unless otherwise noted, all costs contained in this report are denominated in United States dollars (US\$1.00 = CDN\$1.06). Where gold grades are quoted in this report, the following abbreviations are used: “opt” means troy ounces per short ton, “gpt” means grams per metric tonne, “ppb” means parts per billion and “ppm” means parts per million.

## **3. Reliance on Other Experts**

This report has been prepared by Spectrum Resources Inc (SRI) and by Giroux Consultants Ltd (GCL). Several public and private documents acquired by the author were used to prepare this report. GCL is responsible for Item 14 of the report pertaining to the Mineral Resource Estimate. While reasonable care has been taken in preparing this report, SRI cannot guarantee the accuracy or completeness of all supporting documentation. In particular, SRI did not attempt to determine the veracity of geochemical data reported by third parties, nor did SRI attempt to conduct duplicate sampling for comparison with the geochemical results provided by other parties. The interpretive views expressed herein are those of the author and may or may not reflect the views of Freegold.

## **4. Property Description and Location**

### **4.1 Area and Location**

The Golden Summit property is located in the north portion of the Fairbanks Mining District (Figure 4.1). It is located near two major gold mines operated by Kinross Gold Corporation, including the Ft Knox gold mine (approximately 5mi (8km) to the south), and the True North gold deposit (approximately 2.5mi (4km) to the west). The property includes several historic underground lode gold mines which thrived during the early 1900's and continued to operate intermittently until the early 1940's. The two largest historic underground gold mines in the Fairbanks Mining District, the Cleary Hill and Hi Yu Mines, are located on the property.

The Golden Summit property is located approximately 18mi (29km) by road north of Fairbanks (Figure 4.1). The property consists of two separate blocks of claims. One large contiguous block of claims extends from approximately 1.5mi (2km) northeast of Pedro Dome to Crane

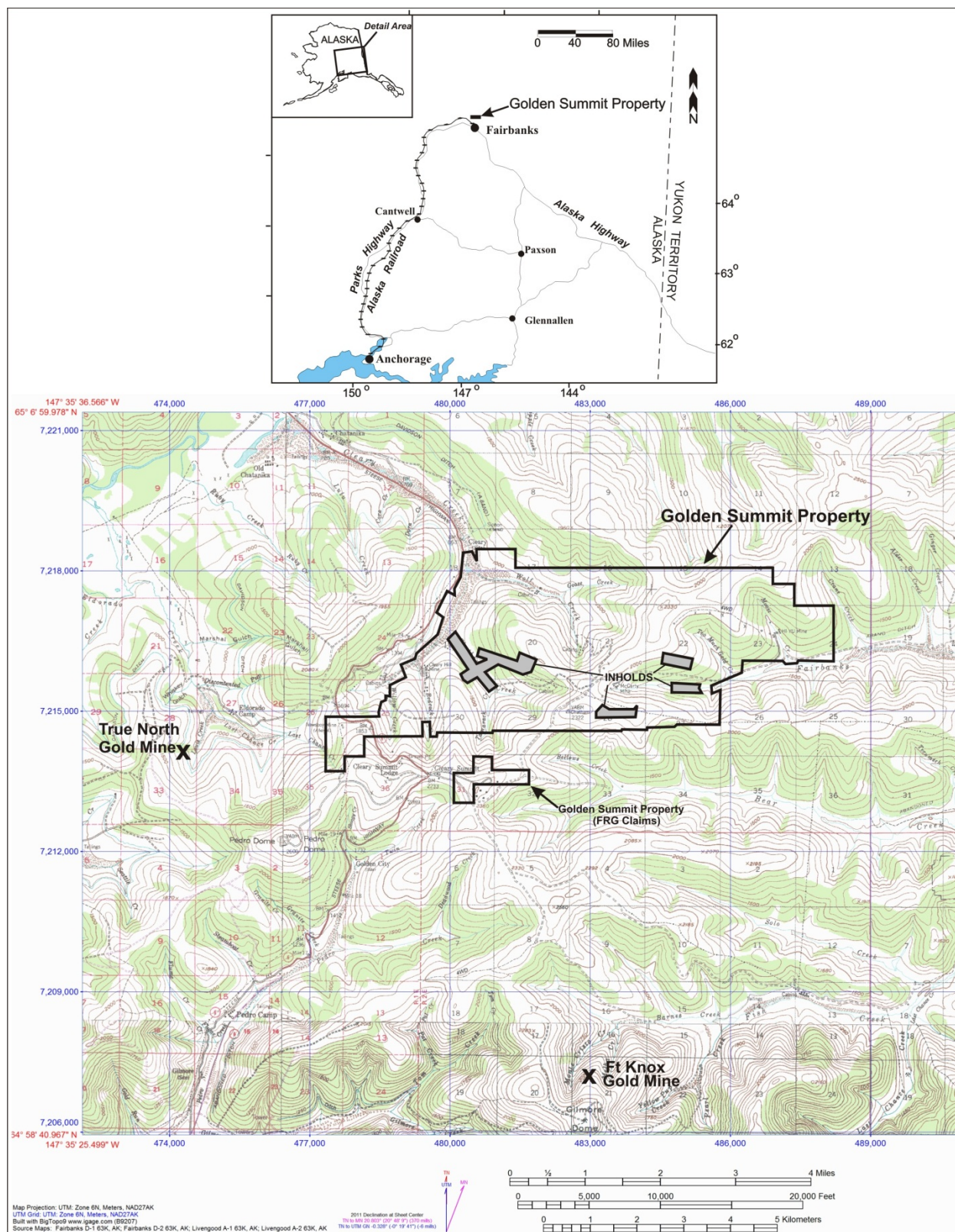


Figure 4.1. Location map for the Golden Summit property, Fairbanks Mining District, Alaska.

Creek, and includes the main ridge area between Fairbanks Creek and Cleary Creek. A small block of claims (“south block”) is located approximately 0.5mi (1km) east of Cleary Summit. The property is situated largely in the south portion of Township 3N, Range 2E of the Fairbanks Meridian, centered at approximately 65° 4’ 22” N latitude and 147° 22’ 18” W longitude.

## **4.2 Claims and Agreements**

The Golden Summit property is comprised of Federal patented lode mining claims, Federal unpatented lode mining claims, and State of Alaska mining claims, covering approximately 6,500 acres (Figure 4.2; Table 4.1). A complete list of claims comprising the Golden Summit property is provided in Appendix 1. All claims comprising the property are currently in good standing. Freegold acquired the right to earn a majority interest in a portion of the Golden Summit property (Keystone partnership claims) in 1991 by entering into an option and joint venture agreement with Fairbanks-based Fairbanks Exploration Inc. By early 1997 Freegold had earned its interest and renegotiated the existing contract, resulting in a 93% interest on that portion of the property; Freegold has management control over the 7% interest that was retained by Fairbanks Exploration. The remainder of the property is controlled either directly by Freegold claim ownership, or through various agreements with the registered claim owners, as summarized below. The only significant change in land status of the property during 2011 was the addition of seven Federal patented lode mining claims forming the Chatham Property, which previously formed an inholding within the Golden Summit property.

Terms and conditions affecting leased claims of the Golden Summit property are summarized as follows:

### **i) Keystone Claims**

As of November 30<sup>th</sup>, 2001, Freegold re-negotiated advance royalty payments for the claims comprising the Keystone group. For years 2011-2019, advanced royalty payments are US \$150,000 per year, for a cumulative total of US \$1,350,000. The property is subject to a 3% NSR. In 2011 Freegold negotiated an extension for the Keystone Lease that for so long as there is either active exploration or production on the Project the Lease shall continue.

### **ii) Tolovana Claims**

In May 2004, Freegold acquired 100% of the rights to a 20-year lease on the Tolovana Gold Property in Alaska (Tolovana Lease). The Tolovana Lease requires Freegold to assume all previous obligations, including annual payments of US \$1,500 per month for the duration of the lease. The property is subject to a sliding scale NSR as follows: 1.5% NSR if gold is below US \$300 per ounce, 2.0% NSR in the event the price of gold is between US \$300 to US \$400, and 3.0% NSR in the event that the price of gold is above US \$400. The Tolovana Lease requires exploration expenditures in the amount of US \$1,500,000 during 2012, and US \$2,500,000 during 2013.

**(iii) Newsboy Claims**

In 2006, Freegold renewed the existing lease on the Newsboy claim group, extending the term of the lease for an additional 5 years on the same terms and conditions. The claims are subject to a 4% net smelter royalty. The Company has the option to purchase the net smelter royalty for the greater of the current value or US \$1,000,000, less all advance royalty payments made.

**(iv) Green Claims**

On December 16<sup>th</sup>, 2010 Freegold entered into a long term lease agreement with Christina Mining Company, LLC (“CMC”), for mineral rights to a group of claims between Chatham Creek and Wolf Creek known as the “Green Property”. The claims are subject to a 3% net smelter royalty. In addition, the lease agreement requires Freegold to make annual cash payments and exploration expenditures as follows:

<u>Due Date</u>	<u>Payment (US \$)</u>	<u>Expenditure (US \$) by this date</u>
December 1, 2012	\$100,000	\$250,000
December 1, 2013	\$100,000	\$750,000
December 1, 2014	\$100,000	\$1,000,000
Dec 1, 2015-2019	\$100,000 per yr	----
Dec 1, 2020-2029	\$200,000 per yr	----
<b>Total</b>	<b>\$3,000,000</b>	<b>\$2,500,000</b>

**(v) Chatham Claims**

In 2010 Freegold entered into a four year lease agreement to obtain mineral rights to several federal lode mining claims collectively known as the “Chatham Property”. The claims are subject to a 2% net smelter royalty (see below). The lease entitles Freegold to purchase 1% of the net smelter royalty for US \$750,000, and to purchase the property for US \$750,000. Certain claims are subject to a 7% working interest held in trust for Fairbanks Exploration Inc, under which Freegold is required to fund 100% of the project costs until production is achieved, at which point Fairbanks Exploration Inc is required to contribute 7% of any approved budget. The property is subject to a 2% net smelter royalty to Fairbanks Exploration Inc. Freegold has a 30 day right of first refusal in the event that the 7% working interest of Fairbanks Exploration Inc or the 2% net smelter royalty is to be sold. Freegold can also purchase the net smelter royalty at any time following commercial production, based on its net present value as determined by mineable reserves.

In addition to the above, the lease agreement requires Freegold to make annual cash payments and exploration expenditures as follows:

<u>Year</u>	<u>Payment (US \$)</u>	<u>Expenditure (US \$)</u>
2012	\$30,000	\$50,000
2013	\$40,000	\$50,000
2014	\$50,000	\$50,000
2015	----	\$50,000
<b>Total</b>	<b>\$140,000</b>	<b>\$200,000</b>

Mineral rights on federal claims in this part of Alaska are administered by the Bureau of Land Management (BLM). Annual rents vary according to type of claim, claim size and age and are due and payable by August 31 of each year for unpatented federal mining claims, and by November 30 of each year for State mining claims. For 2011-2012, total rents due for federal claims are \$12,020 and total rents due on State claims are \$33,140. Payments are made in lieu of annual labor on unpatented federal claims.

Annual work commitment on State mining claims total \$2.50 per acre per year. Amounts spent in excess of these levels are bankable on State mining claims for up to four years into the future. The land on which the property is situated is zoned as Mineral Land by the Fairbanks North Star Borough, giving mineral development activities first priority use. There currently are no unusual social, political or environmental encumbrances to mining on the project.

Other than the 49 patented mining claims (fee simple lands), the claims comprising the property have not been surveyed by a registered land or mineral surveyor, and there are no State or Federal Laws or regulations requiring such surveys. Survey plats for all patented mining claims are open to public inspection at the Bureau of Land Management.

As of the date of this report, Freegold currently holds a valid Five Year Hardrock Exploration Permit (2012-2016) from the Alaska Department of Natural Resources for work on patented and State of Alaska lands on the project. Additional permits for work on unpatented Federal mining claims currently are being reviewed by the U.S. Bureau of Land Management and are expected to be issued later this spring. The company will acquire additional permits from the Alaska Department of Natural Resources, U.S. Bureau of Land Management, Alaska Department of Environmental Conservation, Army Corps of Engineers and other State, federal and local regulatory agencies as required.



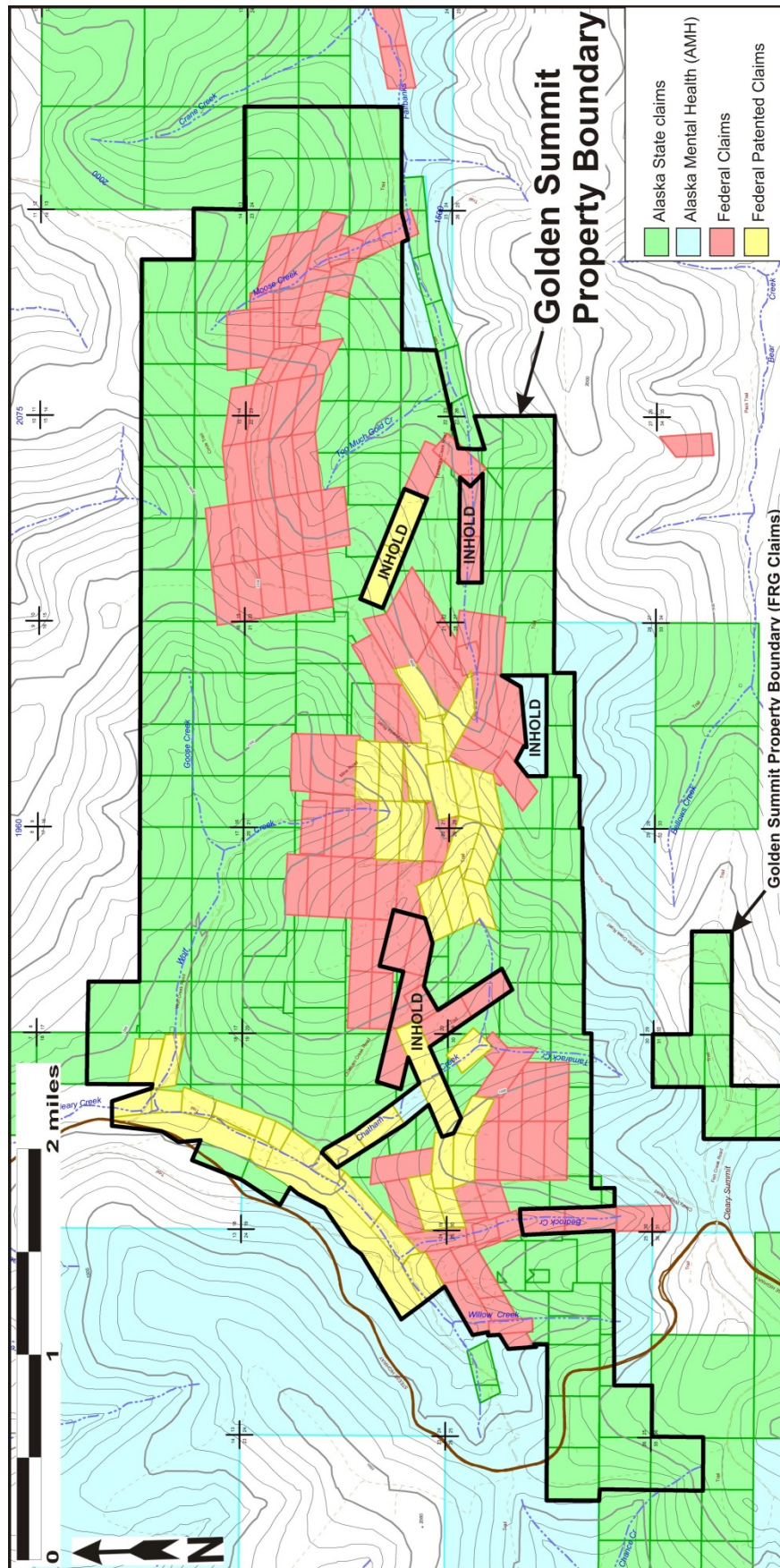


Figure 4.2. Golden Summit property boundary and land status. Alaska State claims shown in green, Federal claims shown in red, Federal Patented claims shown in yellow, Alaska Mental Health (AMH) holdings shown in light blue.

Table 4.1 Summary of claims comprising the Golden Summit property (approximate).

<b>Claim Type</b>	<b>Total Claims</b>	<b>Total Area (sq mi)</b>	<b>Total Area (acres)</b>	<b>Total Area (hectares)</b>
Federal Patented	49	1.09386	700.07	283.31
Federal Unpatented	92	2.1301	1,363.26	551.69
State of Alaska	165	7.13424	4,565.91	1,847.76
<b>Total</b>	<b>306</b>	<b>10.3582</b>	<b>6,629.24</b>	<b>2,682.76</b>

## **5. Accessibility, Climate, Local Resources, Infrastructure and Physiography**

### **5.1 Accessibility**

The west end of the property is transects by the Steese Highway, a northeast-trending paved and gravel road connecting Fairbanks with Arctic Circle (Figure 4.1). The Steese Highway is paved from Fairbanks for approximately 75mi. Several gravel roads which spur off of the Steese Highway provide year-round access to various parts of the property. One of these gravel roads connects with Fairbanks Creek Road, which transects and provides access to the south portion of the property.

### **5.2 Climate**

The climate in this portion of Alaska is dominated by 6 to 8 months of sub-freezing temperatures in winter followed by 4 to 6 months of warm summer weather. Average annual precipitation is 13 inches, mostly as snowfall. In spite of the long, cold winters, heap leaching is currently being used successfully at the Ft Knox gold mine.

### **5.3 Local Resources**

The greater Fairbanks area supports a population of approximately 87,000 and has excellent services, as well as labor and supplies readily available. Workers at the nearby Ft Knox gold mine commute from Fairbanks daily. The main campus of the University of Alaska is located in Fairbanks, as well as numerous State and Federal government offices. Fairbanks is also a major transportation hub, including a railroad facility. Fairbanks International Airport is serviced by several major airlines, with numerous scheduled daily flights. The East Ramp, which is a smaller airport located adjacent to Fairbanks International Airport, is the home of numerous charter fixed-wing and helicopter operations.



## 5.4 Infrastructure

A high voltage electrical power line parallels the Steese Highway and transects the west portion of the Golden Summit property. Land telephone lines and a cellular phone network are also available on the on the west portion of the property. A major oil refinery is located in the city of North Pole, approximately 15mi (24km) south of Fairbanks. Also, a natural gas line extending from the North Slope through Fairbanks is currently being proposed.

## 5.5 Physiography

Elevations on the property range from 1,000 feet to over 2,200 feet. Topography in the area is dominated by low rounded hills dissected by relatively steep walled valleys. Outcrops are scarce except in man-made exposures. Vegetation consists of a tundra mat that supports subarctic vegetation (alder, willow, black spruce, aspen and birch). A variably thick layer of aeolian silt covers most of the property. Permafrost is limited to small discontinuous lenses on steep, poorly drained north-facing slopes, and does not pose an obstacle to exploration activities.

## 6. History

Many reports, maps and topical studies concerning the geology and mineral resources in the area and eluding to exploration of the property are available in the public domain: a few include Prindle (1910; 1913), Smith (1913), Mertie (1918; 1937 Moffit (1927), Pilgrim (1931-33), Hill (1933), Saunders (1967), Chapman and Foster (1969), Pilkington et al (1969), Forbes and Weber (1981, Newberry, et al (1988-89), Robinson, et al (1990) and Metz (1991). In 1994 the Alaska DGGs completed an airborne geophysical survey over the Fairbanks Mining District (ADGGs, 1994). Follow-up mapping led to the most recently published geologic map of the district (Newberry, et al, 1996). Many graduate theses related to the geology and mineralization of the district are also available (McCombe and Grant, 1931; Hall, 1940; Brown, 1962; Sandvik, 1964; Britton, 1970; Blum, 1982; Sherman, 1983; Hall, 1985; Swainbank, 1971; Allegro, 1987; LeLacher, 1991).

A discussion of all previous mining and exploration activities within the Golden Summit property boundaries is beyond the scope of this report. Approximately 6.75 million ounces of gold have been recovered from drainages on and originating within the Golden Summit property (Freeman, 1992e). In addition, historical records indicate over 506,000 ounces of gold have been recovered from past producing lode gold mines on the property; more than 80 lode gold occurrences have been documented on the property (Freeman and others, 1996). The Cleary Hill Mine held the rank of largest single lode gold producer in the district until its major operations were shut down in 1942. For details of the early exploration history of mines and prospects on the property the reader is referred to previous reports by Freeman (1991; 1992-2009).

Modern exploration on the Golden Summit property and in adjacent areas began in 1969 (Table 1). Exploration was completed by International Minerals and Chemical Corporation (IMC),

Placid Oil Company (POC), Sedcore Exploration, Ltd (SC) and British Petroleum Minerals America (BP) through 1988, and subsequently was explored by Fairbanks Exploration Incorporated (FEI) through joint venture agreements with Freegold, AMAX Gold Exploration Inc (AGEI), Barrick Minerals Exploration Inc (BMEI) and Meridian Minerals Corporation (MMC).

Table 6.1 Summary of modern exploration (1969-2010) conducted within the Golden Summit property and on adjacent prospects.

<b>Company</b>	<b>Years</b>	<b>Exploration/Mining Activity</b>	<b>Principle Targets</b>
IMC	1969	Trenching RC drilling	Saddle Zone Circle Trail Zone
POC	1978 - 1986	Trenching Core & RC drilling Adit excavation Christina feasibility study	Christina Vein Pioneer Vein American Eagle Vein Hi Yu Vein
SC	1980 - 1981	Diamond core drilling RC drilling Resource estimate	Tolovana Shear Zone
FEI	1988	Bulk sampling	Christina Vein
Keystone Mines Partnership	1989	Bulk sampling of mine waste dumps	American Eagle, Hi Yu, Cleary Hill Mines
BP/FEI JV	1987 - 1988	Trenching, RC drilling	Too Much Gold prospect Saddle Zone Circle Trail Zone Christina Vein
Freegold/FEI JV	1991	Property-wide data compilation	Property-wide
Freegold/AGEI JV	1992 - 1994	Trenching, soil sampling, RC drilling, aerial geophysical surveys (EM), bottle roll testing, baseline water quality surveys, aerial photos, EDM surveys	Too Much Gold prospect Cleary Hill Mine area
Freegold	1995 – 1996	RC drilling	Dolphin Deposit Cleary Hill Mine area
Freegold/BMEI JV	1997 – 1998	Property-wide grid-base soils, recon & prospect mapping, grab sampling, limited RC and core drilling	Property-wide Goose Ck prospect North Extension prospect Coffee Dome Dolphin Deposit Newsboy Mine area Wolf Ck area
Freegold	2000	Limited core drilling	Cleary Hill Mine area
Freegold	2002	Trenching	Cleary Hill Mine area (Currey Zone)
Freegold	2003	Limited core drilling	Cleary Hill Mine area (Currey Zone)
Freegold/MMC JV	2004	Trenching, core drilling	Tolovana Mine area Cleary Hill Mine area
Freegold	2005 -2006	Trenching	Cleary Hill Mine area Wackwitz Vein area Beistline Shaft area
Freegold	2007 - 2008	Trenching, RAB drilling, core drilling, bulk sampling	Cleary Hill Mine area Tolovana Mine area
Freegold	2010	Induced Polarization Survey	Tolovana Mine Area

Since initial acquisition of the Golden Summit property in 1991, Freegold has conducted extensive mapping, soil sampling, trenching, rock sampling, geophysical surveys, drilling (core, RC and RAB) and limited bulk sampling on the property (Freeman, 1991; Galey and others, 1993; Freeman and others, 1996; 1998; Freeman, 2004-2008; Adams, 1998).

## **7. Geological Setting and Mineralization**

### **7.1 Regional, Local and Property Geology**

#### **7.1.1 Regional Geology**

The Fairbanks Mining District is located in the, in the north-central portion of the Yukon-Tanana terrane (YTT). The YTT is a diverse lithotectonic terrane of largely continental affinity consisting primarily of quartzitic, pelitic and calcic metasedimentary rocks, and local mafic and felsic meta-igneous rocks. These protoliths are intruded to a large extent by Mesozoic and Cenozoic granitic rocks (Foster and others, 1994; Newberry, 2000). The YTT is bound on the north by the Tintina-Kaltag fault system, and on the south by the Tanana-Denali-Farewell fault system. These fault systems form zones of major right lateral strike-slip movement, but are largely obscured by alluvial and other Quaternary deposits. Small subterrane of possible island-arc affinity occur along the south margin and in the northeast portion of the YTT (Nokleberg, et al, 1994).

Igneous rocks are widespread throughout the YTT, but are most abundant in the eastern portion of the province. Age dates of plutonic rocks in the YTT generally cluster into three distinctive groups: 1) 215–188 Ma (Late Triassic–Early Jurassic), 2) 110-85 Ma (mid- to Late Cretaceous), and 3) 70–50 Ma (Latest Cretaceous-Eocene). Within the 110-85 Ma group, most age dates cluster within a sub-group ranging in age from 95-90 Ma, and typically referred to as the “Tombstone” suite (Mortinson et al, 2000); plutonic compositions of the Tombstone suite ranges are dominantly granite, granodiorite, quartz monzonite and diorite. The Tombstone suite plutonic rocks are thought to be derived from crustal melts, but could also be mantle-derived melts with significant crustal material contamination. Volcanic rocks in the YTT are far less voluminous plutonic rocks. Volcanic rocks ranging from Cretaceous to Cenozoic in age, and from rhyolite to basalt in composition, are found in scattered locations throughout the YTT.

#### **7.1.2 Local Geology**

Figure 7.1.2 shows the general geology of the the Fairbanks Mining District, which consists of four major allocthonous rock sequences:

- 1) Chatanika Terrane: Devonian-Mississippian high grade metamorphic rocks, including garnet-pyroxene eclogitic rocks, micaceous quartzite, coarse-grained white mica-quartz schist, black carbonaceous schist, calcareous schist and orthogneiss, generally restricted to the northern part of the district. Microprobe studies show P/T conditions of 11 kb and 600-700 degrees centigrade.

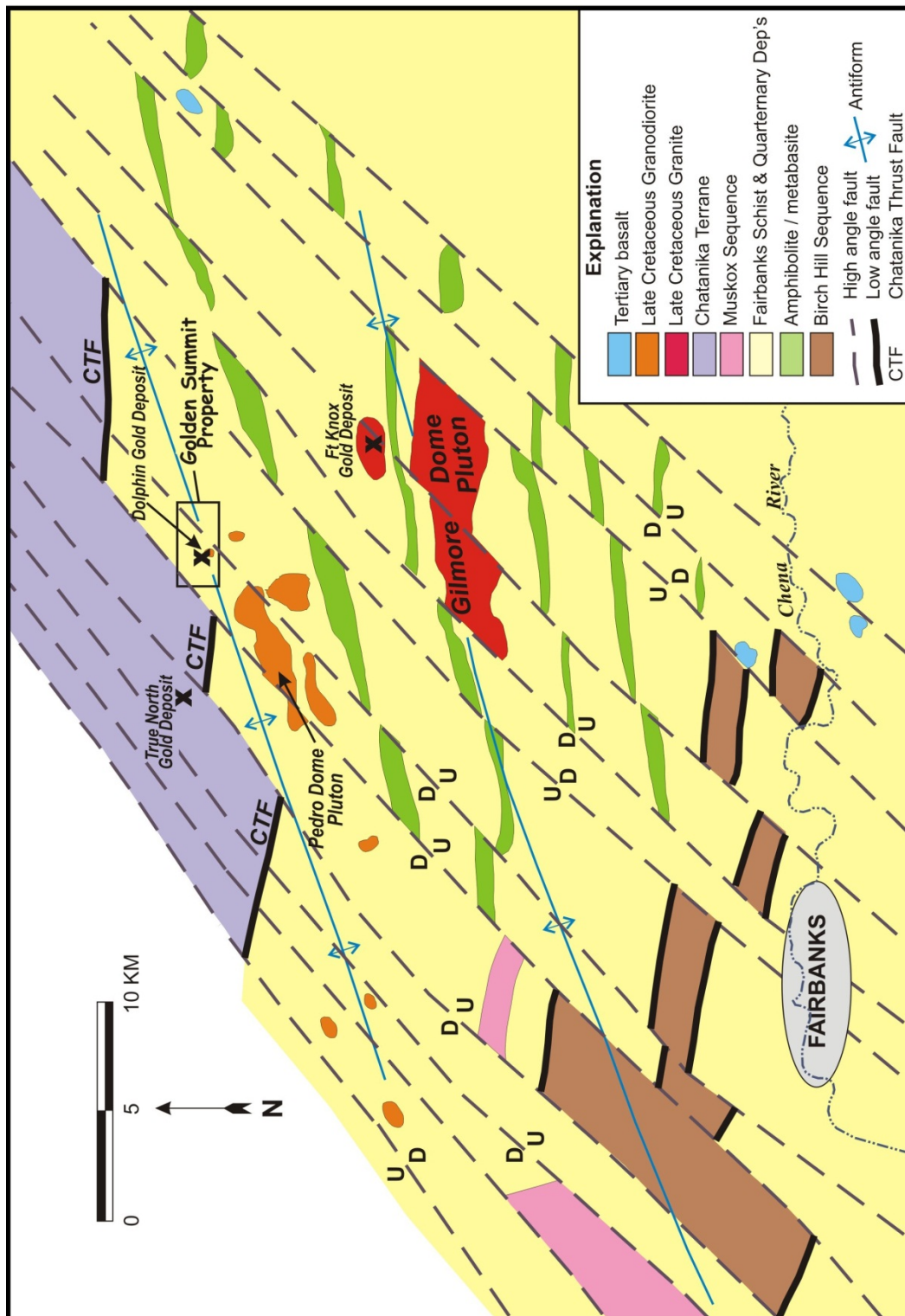


Figure 7.1.2. General geology of the Fairbanks Mining District, Alaska. Data from Newberry, and others, 1996 modified by Avalon Development, 2008.

- 2) Fairbanks Schist: Proterozoic to early Paleozoic quartzite, quartz muscovite schist, marble, chlorite schist, amphibolite and magnetite-biotite schist. The unit includes a mixed metavolcanic-metasedimentary sequence informally referred to as the “Cleary” sequence (Russel, 1985a; Russel, 1985b; Robinson, et al, 1990).
- 3) Musk Ox Sequence: Devonian meta-volcanic rocks (andesitic, basaltic, and rhyolitic) and meta-sandstone.
- 4) Birch Hill Sequence: Paleozoic (?) slate and phyllite, and minor metarhyolite tuff, quartzite, chloritic and calcareous schists and marble.

The majority of the known plutonic rocks in the district range are late Cretaceous in age. Radiometric age dates for these rocks range from 88 to 94 Ma, suggesting broad correlation with the Tombstone suite in the Yukon. This plutonic event is represented by two major composite plutons known as the Pedro Dome and Gilmore Dome plutons. The Pedro Dome pluton ranges from granodiorite to tonalite in composition, and the Gilmore Dome pluton ranges from granite to granodiorite in composition. The O'Connor Creek syenite, dated at 110 Ma, represents an earlier, apparently much more localized plutonic event associated with silica-poor magmatism (Blum, 1983; Allegro, 1987; Newberry, et al, 1996).

The Fairbanks mining district is characterized by numerous faults and folds. Regional structural studies by Swainbank (1970; 1975), Hall (1985) and LeLacheur (1991) have identified three main deformation events. The earliest event (F1) is represented by northwest-trending, isoclinal recumbent folds. These folds may have been formed during regional southwest-vergent thrusting associated with emplacement of the Chatanika Terrane along the Chatanika Thrust Fault (CTF). Sericite from the CTF has been dated at approximately 130 Ma by Ar40/Ar39 methods (Douglas, 1997). More recent northeast-trending high angle faults, have staggered the CTF in numerous places, in most places resulting in sinistral offset. The second event (F2) is associated with northeast-trending isoclinal recumbent folds and associated regional northeast-trending foliations. The third event (F3) is represented by variably-oriented, large-scale, broad open folds. Two major northeast-trending antiforms, known as the Cleary antiform and the Gilmore antiform, are thought to have formed during F2. The Cleary antiform is intruded by the Pedro Dome pluton, and the Gilmore antiform is intruded by the Gilmore Dome pluton.

### **7.1.3 Property Geology**

Three main rock units underlie the Golden Summit property, including rocks of the Fairbanks Schist, rocks of the Chatanika Terrane, and intrusive rocks (Figure 7.1.3A). Most of the property is underlain by the Fairbanks Schist. Chatanika Terrane rocks are found north of the Chatanika Thrust Fault (CTF) and underlie the northernmost portion of the property. Intrusive rocks are relatively minor on the Golden Summit property, and are primarily represented by the Dolphin stock, although small granitic dikes are known in several locations.



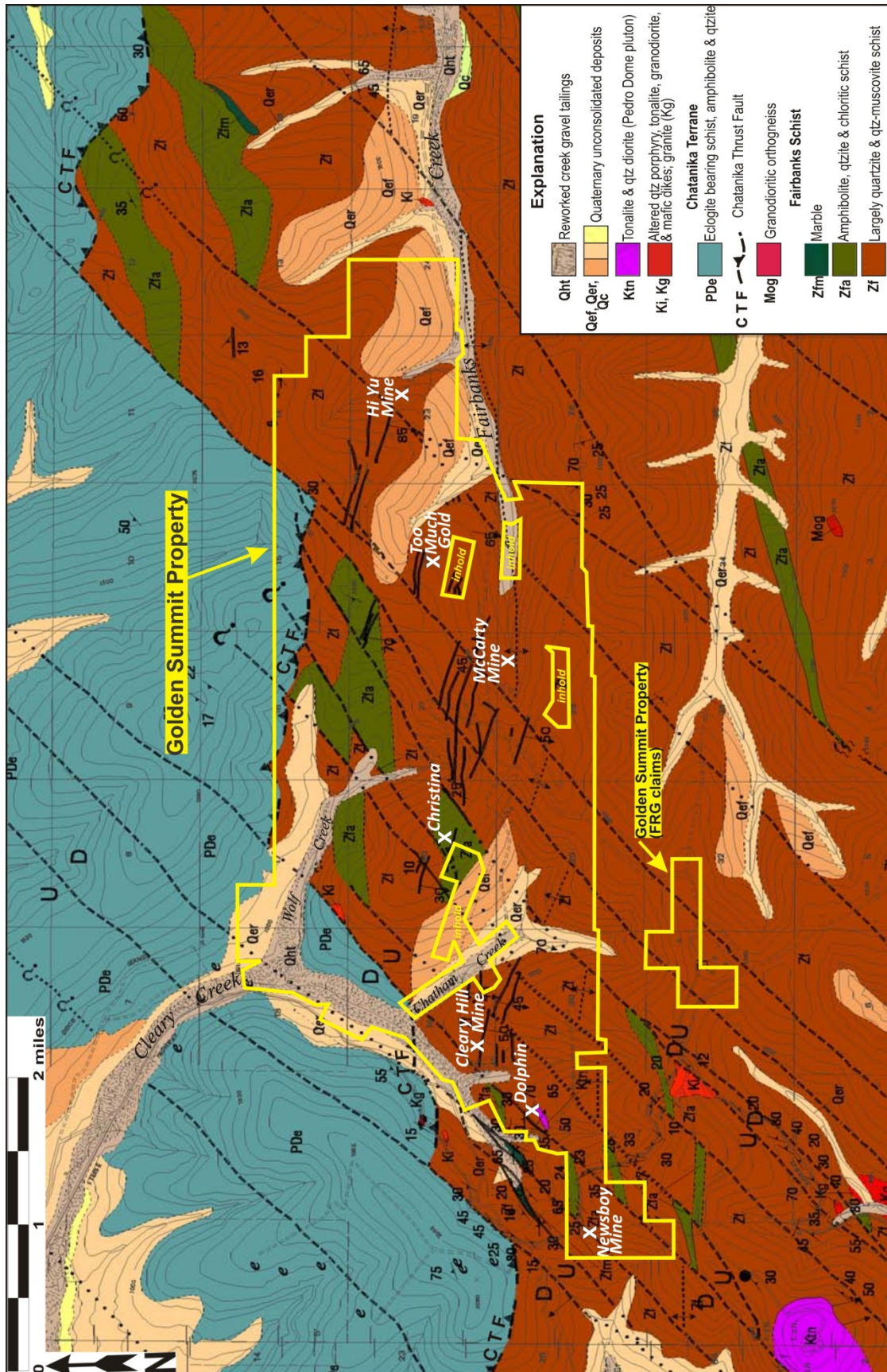


Figure 7-1-3A. Local geology and major prospects on the Golden Summit property (geology from Newberry et al, 1996).

The Fairbanks Schist consists largely of quartz-mica schist and micaceous, massive to laminated quartzite, with lesser amounts of amphibolite, chlorite schist, calc-schist and marble. A sub-unit within the Fairbanks Schist, referred to as the “Cleary Sequence”, consists of thin-layered, highly variable lithologies. The lower portion of the Cleary Sequence (~450 feet) consists of massive, mafic metavolcanic rocks (flows and tuffs), and minor actinolite schist, quartzite, and dolomite. The middle portion of the Cleary Sequence (~300 feet) consists of massive quartzite, feldspathic quartz schist, and quartz mica schist. The upper portion (~250 feet) is similar to the middle portion, but is distinguished by the presence of abundant interlayered marble and minor amounts of garnet-bearing schist. Locally the Cleary Sequence is capped by a distinctive gray, pyritic marble up to 50 thick.

Chatanika Terrane rocks on the Golden Summit property include muscovite-quartzite, coarse-grained muscovite schist, amphibolite, massive actinolite greenschist, chlorite schist, and local garnet-bearing eclogitic rocks. Chatanika Terrane mafic rocks are not readily discernible from mafic rocks of the Fairbanks Schist either in hand specimen or core. This has created difficulties with mapping, logging and establishing a stratigraphic section in the Tolovana Mine and Cleary Hill Mine areas.

The Dolphin stock is a small intrusive body located on the ridge between Bedrock and Willow Creek (Figure 7.1.3B). At least five intrusive phases form the Dolphin stock, including 1) fine- to medium-grained, equigranular to weakly porphyritic biotite granodiorite, 2) fine- to medium-grained, equigranular to weakly porphyritic hornblende-biotite tonalite, 3) fine-grained biotite granite porphyry, 4) fine-grained biotite rhyolite to rhyodacite porphyry, and 5) fine-grained, chlorite-altered mafic dikes. The majority of the stock consists of granodiorite and tonalite; granite, rhyolite-rhyodacite and basalt phases occur largely as dikes. Felsic phases, including granite, rhyolite and rhyodacite, are generally more abundant and occur at higher levels in the eastern portion of the stock. Limited drill data suggests the north and west contacts of the Dolphin stock are fault contacts (Figure 7.1.3C). The south and east contacts are largely intrusive contacts with minor faulting.

Due to the paucity of radiometric age dates, limited outcrop, and limited observations of crosscutting relations, the crystallization and mineralization history of the Dolphin stock is still very uncertain. Small dikes of granodiorite cutting tonalite have been observed in core, and granite to rhyolite porphyry dikes cut the granodiorite and tonalite, suggesting a possible differentiation scenario. Two radiometric age dates, including two sericite Ar40/Ar39 plateau age dates (McCoy, 1996), place some constraints on the timing of crystallization and mineralization. The sericite ages were obtained from two different samples representing two distinctly different styles of gold mineralization. One sample, from stockwork style mineralization, was 90.1 Ma. Another sample, from a sericite shear-zone, was 88.3 Ma. These ages are quite similar to ages from Ft Knox (86.3-88.2 Ma). Due to age and chemical similarities, most workers associate the Dolphin and Ft Knox intrusive rocks with the Tombstone suite intrusive rocks (89-93 Ma) in the Yukon Territory (89-93 Ma; Mortenson, et al, 2000).



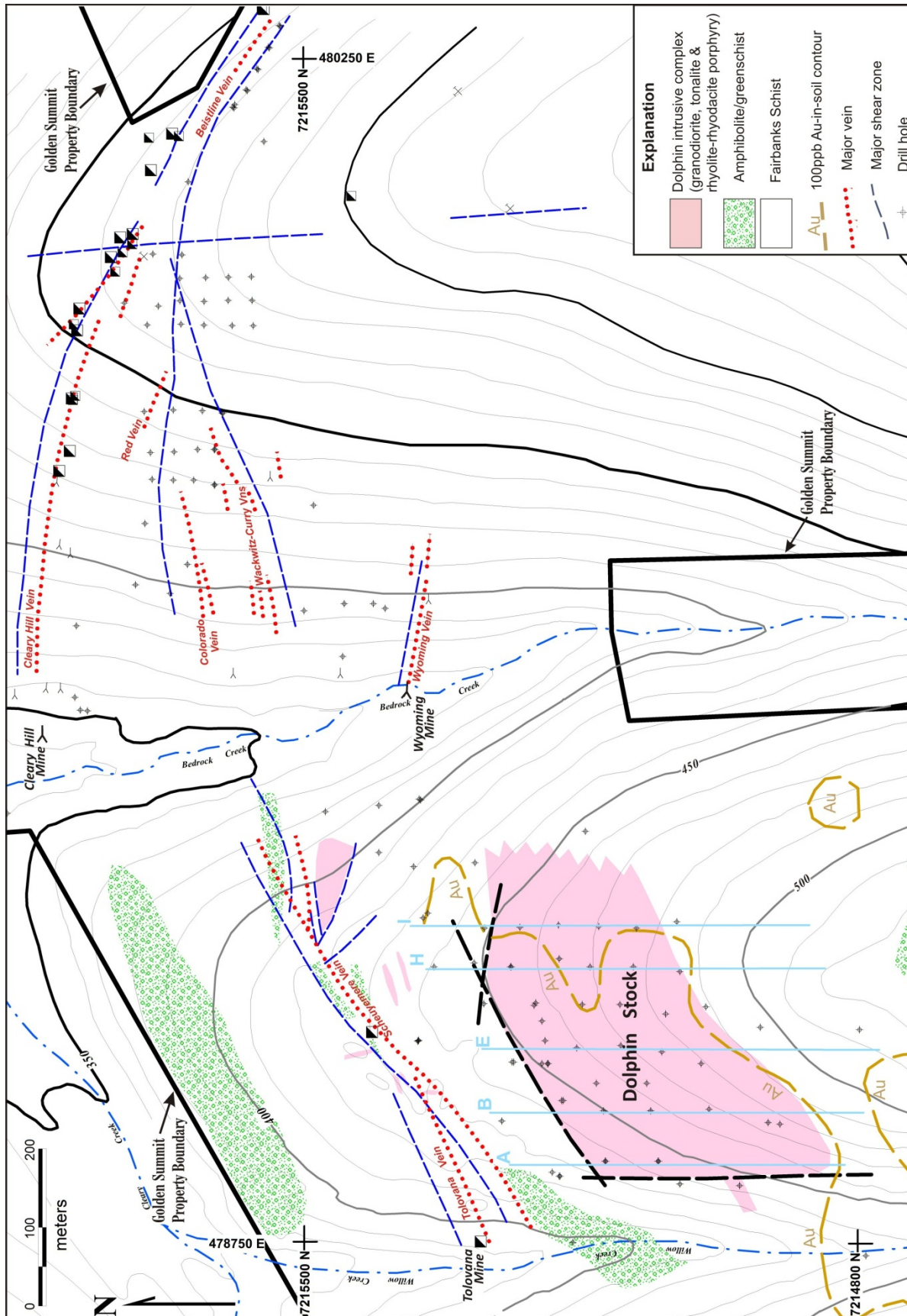


Figure 7.1.3B. Dolphin stock-Cleary Hill Mine area geologic map showing major veins and shears, gold-soil anomalies and drill hole locations.



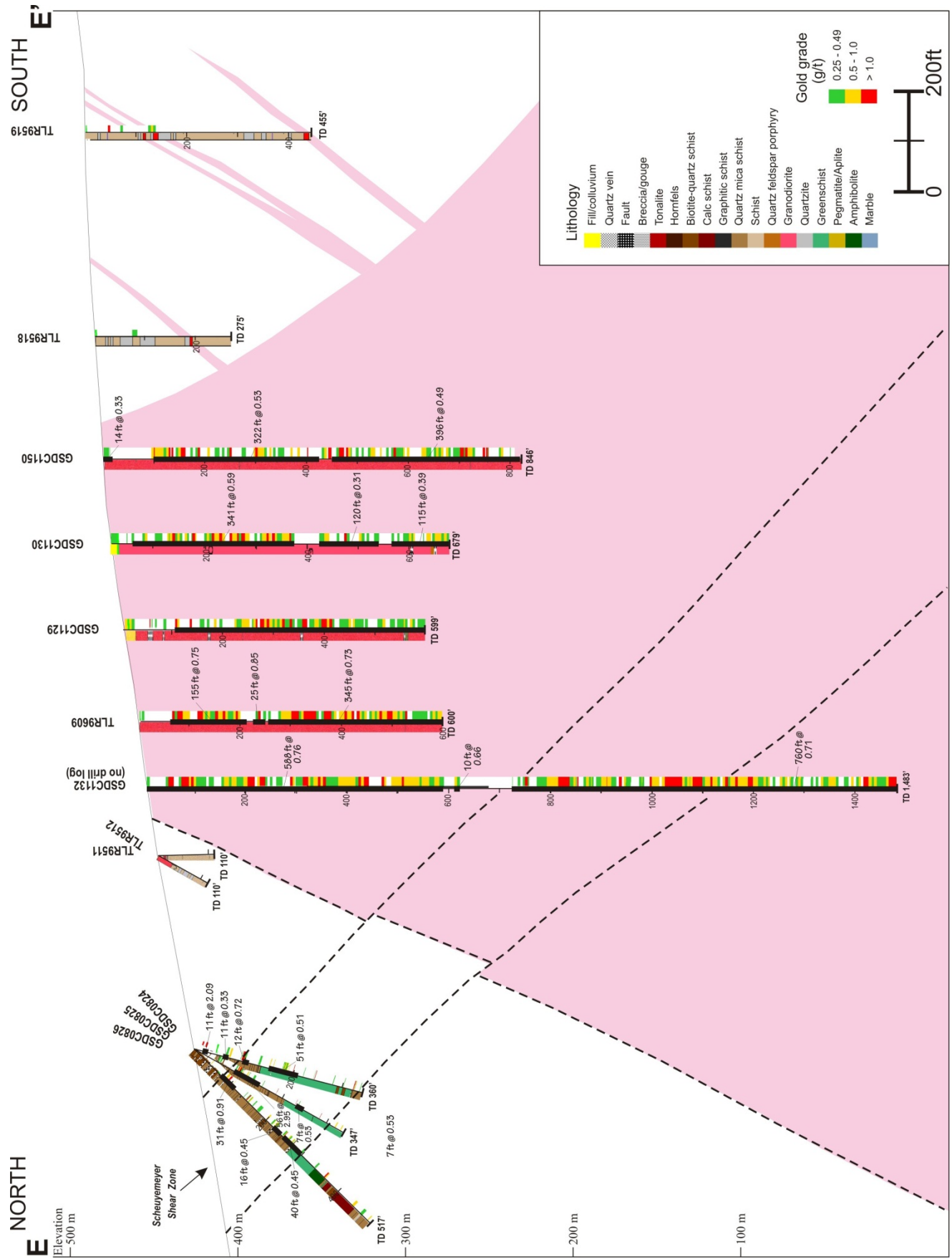


Figure 7.1.3C. North-south drill and geology section E-E' through the Dolphin gold deposit.

Nearly all rocks comprising the Golden Summit property are highly deformed. Primary foliations ( $S_0$ ) in the Fairbanks Schist generally dip north on the north half of the property and generally dip south on the south half of the property, defining a large-scale antiform with an east-west trending axis. Deformation intensity increases further north, with proximity to the CTF. The CTF is thought to represent an ancient thrust event, and one of the earliest deformation events in the area. Rather than a simple fault contact, the CTF is a complex thrust fault zone containing numerous thin thrust sheets or wedges emplaced above and in between layers of various Fairbanks Schist lithologies. The CTF has been offset by numerous northeast-trending high angle faults. These types of faults are very common throughout the northern part of the Yukon Tanana Terrane, and typically represent a very late stage structural event. The CTF may also have been re-activated during later deformation events, or served as the focus of north-directed gravity or listric style fault activity. The next oldest structural event is thought to be represented by the high angle faults and shear zones which host the major auriferous quartz veins found at numerous locations on the property. These zones are largely oriented northwest-southeast, however, northeast-southwest oriented shear zones, which are otherwise very similar in terms of structural style and mineralization, occur to the west and at several other locations on the property. The veins most often dip steeply towards the south, but occasionally dip north. Field evidence for repeated veining, alternating with brecciation suggests the mineralization within these zones was largely syn-deformational. Short offsets (<20ft) of the veins, along steep, north to northeast-trending faults, are also very common.

## **7.2 Mineralization**

Gold mineralization is the only economic mineralization known on the Golden Summit property. Three major types of gold mineralization have been documented, including: 1) intrusive-hosted auriferous quartz veinlets, 2) metamorphic-hosted auriferous quartz veins, and 3) shear zone-hosted auriferous veinlets. All three types are considered to be part of a large-scale intrusive-related gold system (or “IRGS”) on the property. The largest intrusive body located on the property is the Dolphin stock, located near the west property boundary and approximately 2mi (3.2km) northeast of the Pedro Dome pluton.

### **7.2.1 Intrusive-hosted Sulfide-Quartz Veinlets**

Intrusive-hosted, auriferous sulfide-quartz veinlets (0.1-5mm) within the Dolphin stock form the vast majority of the Dolphin gold deposit (Figure 7.2.1A). Gold mineralization within the deposit also occurs as mineralized fault gouge enriched with sulfides, sulfide-rich veins, and locally as narrow sulfide-quartz veins <6 inches thick, however, these comprise a relatively small portion of the total gold resource.

Gold within the Dolphin gold deposit occurs largely as inclusions in sulfides, and locally as visible grains, within the sulfide-quartz veinlets. Arsenopyrite is the most common sulfide mineral, although pyrite, stibnite, lead-antimony sulfosalt minerals, tetrahedrite (?), scheelite, galena and sphalerite occur locally. McCoy (1996) identified two distinct varieties of arsenopyrite in the Dolphin gold deposit based on arsenopyrite geothermometry and age relations. Older arsenopyrite from quartz stockworks (90.1Ma) formed at higher temperatures,



Figure 7.2.1A. Photo of drill core containing gold-bearing sulfide-quartz veinlets in the Dolphin stock.



Figure 7.2.1B. Photo of drill core containing gold-bearing shear zone in the Dolphin stock.



Figure 7.2.1C. Photo of drill core containing sulfide rich vein (pyrite-jamesonite) in the Dolphin stock.

whereas younger arsenopyrite from shear zones formed at lower temperatures (88.3Ma) formed at lower temperatures. McCoy also noted that older “hotter” arsenopyrites were finer-grained compared to younger “cooler” arsenopyrites, which were generally coarse and bladey. Furthermore, the high-temperature arsenopyrite contains particulate inclusions of gold, whereas the low-temperature arsenopyrite contains maldonite (a gold-bismuth mineral). Although stibnite and antimony sulfosalts are not uncommon in the deposit, geochemical studies suggest that high antimony values are generally associated with very low gold values. Evidence suggests that the ore fluids evolved towards increasing base metals and antimony with time (Figure 7.2.1D). For example, chalcopyrite embayments in pyrite were noted in thin section, and massive sulfide veins (jamesonite, galena, stibnite and/or sphalerite) cutting arsenopyrite-quartz veins are noted in several drill logs. In addition to sulfides, some portions of the Dolphin gold deposit contain abundant scheelite.

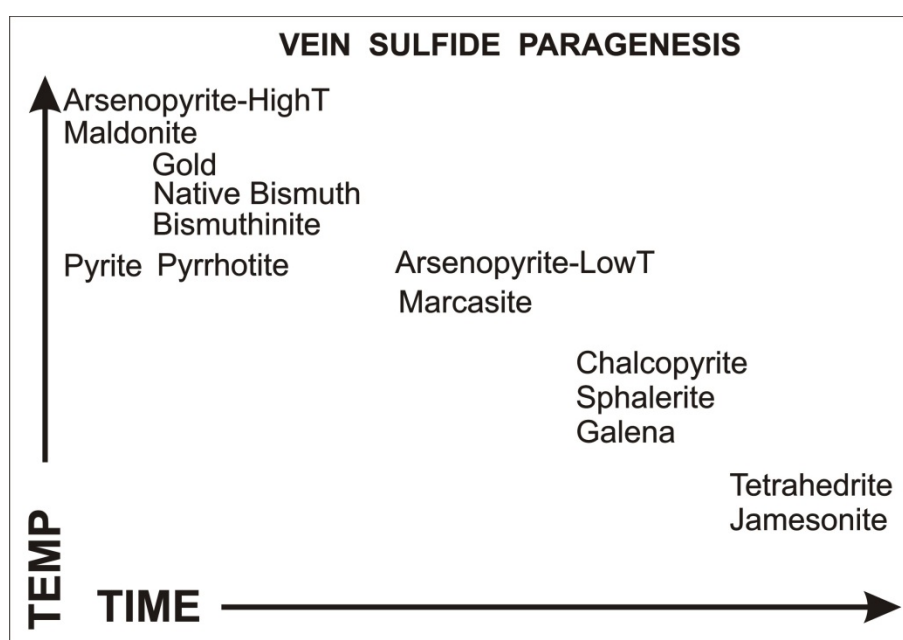


Figure 7.2.1D. Dolphin gold deposit vein sulfide mineralogy, paragenesis and temporal relations.

Several forms of alteration have overprinted the Dolphin intrusive rocks. The most common alteration types are silicification, sericitization and albitization; carbonate alteration (calcite or less commonly dolomite or iron carbonate) is found locally. Alteration can range from weak to intense, and is generally indicative of higher gold values, in particular, when strong silicification and sericitization are present. As mentioned, strong sericite alteration is characteristic of shear zones, but weak to moderate sericite alteration ubiquitous throughout the deposit. Albitic alteration occurs as patchy alteration of groundmass plagioclase, and as megascopic envelopes adjacent to early stage quartz veins.

### **7.2.2 Auriferous Quartz Veins**

High grade auriferous quartz veins (2cm-3m), hosted in metamorphic rocks, occur at numerous locations on the Golden Summit property, and were the source of all previous gold production from the property (Figure 7.2.2A). A discussion each occurrence is beyond the scope of this report; the general mineralogy, morphology and structural setting is summarized below. Detailed information for individual vein prospects on the Golden Summit property can be obtained from previous reports (Freeman, 1990).

The auriferous quartz veins typically crosscut the host rock primary foliation at very high angles (Figure 7.2.2B). A large number of these veins dip south, although some veins dip north locally. Vein thickness is quite variable, and can range from a few inches to several feet over short distances along both strike and dip. Pinch-and-swell features, bifurcations and splays are characteristic. As mentioned previously, strike orientation of the majority of the auriferous quartz veins is west-northwest, although several major veins are oriented northeast. In contrast to the high grade quartz veins, barren, translucent or milky colored metamorphic quartz most often occurs as seams or boudinage sub-parallel to the primary foliation of the host rocks.

Auriferous quartz veins on the Golden Summit property consist of hydrothermal quartz with minor to trace amounts of sulfides. The veins are opaque to milky white quartz and locally gray to mottled gray and white. Bands or laminations parallel to the vein walls are not uncommon, and vein centers often contain vuggy or comby quartz crystals. Silicified vein breccia is also common, and may comprise the entire vein or be restricted to bands within the banding sequence. This suggests there were most likely multiple, possibly alternating episodes of silicification and deformation. Auriferous quartz veins seldom contain more than 5% total sulfides. The most common sulfide is arsenopyrite, although other sulfides are locally present, including pyrite, stibnite, jamesonite, tetrahedrite, galena and sphalerite. Scheelite is present in a few specific veins (notably abundant in the Wyoming Vein). Visible gold typically occurs as coarse flakes, filigree, or wires suspended in quartz or mingled with sparse, scattered sulfides (Figure 7.2.2D). Locally the auriferous quartz veins may be accompanied by parallel of massive stibnite. This massive stibnite occurs locally as <10in (<0.25m) thick seams or pods parallel or adjacent to auriferous quartz veins, and also as veins up to 4ft (1.3m) thick along steep cross-faults which offset the auriferous quartz veins. This stibnite mineralization is thought to be formed at lower temperatures subsequent to deformation of the auriferous quartz veins.



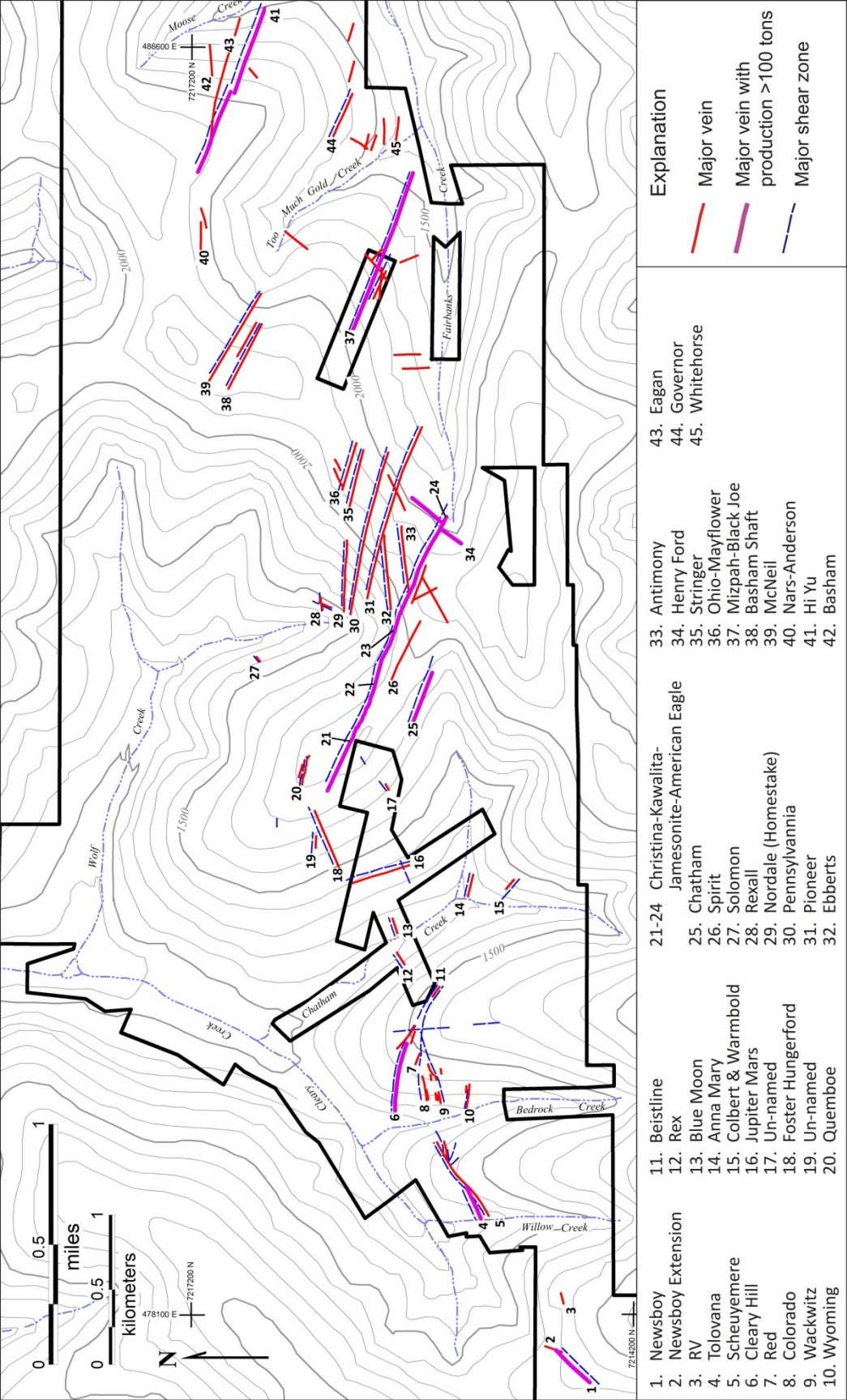


Figure 7.2.A. Map showing known major auriferous quartz veins and shears on the Golden Summit property (data from Freeman, 1987; 1991).



Figure 7.2.2B. Outcrop photo of Christina auriferous quartz vein (approximately 3ft thick).



Figure 7.2.2C. Outcrop photo of Wackwitz auriferous quartz vein (approximately 2ft thick).

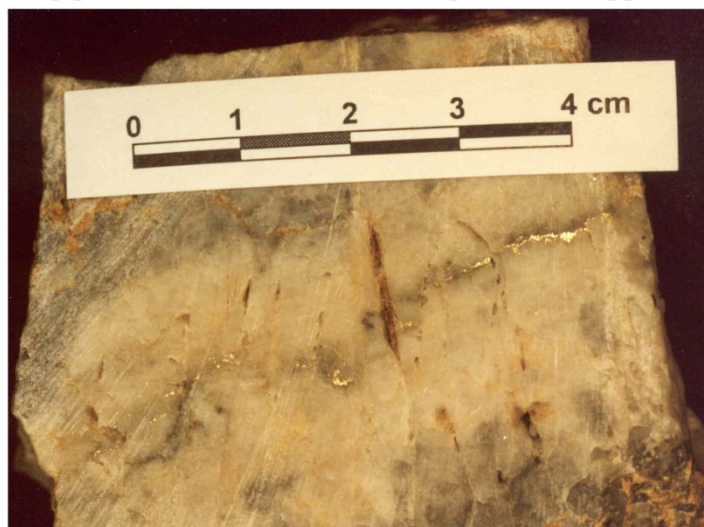


Figure 7.2.2D. Hand specimen photo of Wackwitz vein sample containing thin gold seam.



### **7.2.3 Shear-hosted Veinlet Zones**

Shear-hosted auriferous veinlet zones on the Golden Summit property are found within some of the same shear zones which host major auriferous quartz veins. The key characteristic of these zones is that they contain sufficient veinlet density to justify bulk-mining methods. Several of these zones have been explored since about 1969, including the Too Much Gold prospect, the Circle Trail and Saddle prospects, and the Curry Zone. Most recently, several zones in the Cleary Hill Mine area have been targeted by Freegold (Figure 7.2.3A).

The shear-hosted veinlets consist largely of quartz with variable amounts of sulfides, although locally the veinlets may consist largely of sulfides with lesser amounts of quartz. Sulfide-quartz veins within the shear-hosted zones generally are less than a few cm's in thickness. Locally these veins form vein sets with vein spacing of a few feet, resembling a sheeted vein system (vein swarm). The veins are discontinuous along strike and dip, and often grade into broken veins, vein breccia, or zones of sugary, granulated crush quartz material. Higher quartz vein and veinlet content is generally indicative of higher gold values.

The shear-hosted veinlet zones are characterized by pervasive sericite and clay alteration, as well as localized silicification and carbonate alteration (Figure 7.2.3B). In addition, the zones are typically highly oxidized near the surface, and contain locally intense iron, arsenic or antimony oxides (Figure 7.2.3C). The majority of the veinlets within the zones are sub-parallel to the strike and dip of the zone. Where the zone contains a major vein or vein cluster, the veinlets are sub-parallel to those veins.

Host rocks for the veinlet zones are quite variable, and most likely influenced the degree of deformation in the zone. For example, massive quartzite or greenstone units are more resilient, and perhaps tended to propagate fractures where fluids were more restricted, resulting in the formation of veins. In comparison, thin-bedded units with higher siliceous, carbonaceous and calcareous components apparently were more susceptible to shearing and widespread infiltration by metal-bearing fluids. Therefore, key factors are thought to be the right combination of host rock lithology, location within a major shear zone, and access to a hydrothermal fluid source. These zones are best developed where multiple shears or faults intersected and caused widespread fracturing and granulation of the host rocks. At the True North gold deposit, faulting along the CTF and other structures is thought to have provided a structural regime conducive to forming economic gold mineralization. Several shear-hosted veinlet zones were delineated in the Cleary Hill Mine area, primarily using RAB and diamond core drilling methods, followed by excavation of bulk sample pits.



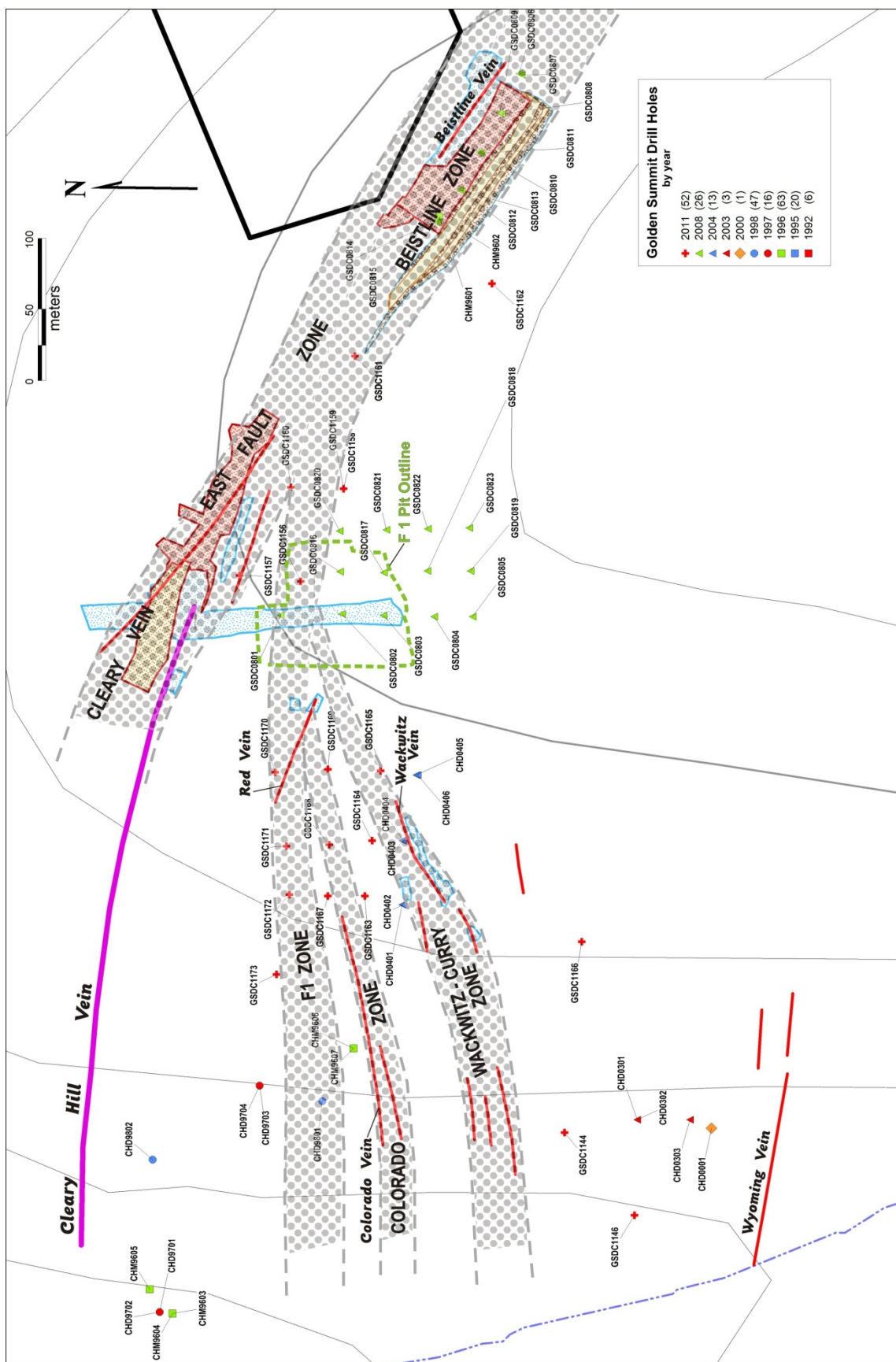


Figure 7.2.3A. Map of the Cleary Hill Mine area showing major veins, shear-hosted veinlet zones, bulk sample pits, and drill hole locations.





Figure 7.2.3B. Outcrop photo of shear-hosted gold-bearing veinlet mineralization (Beistline zone).



Figure 7.2.3C. Trench photo of shear-hosted gold-bearing veinlet mineralization (Beistline zone).

## **8. Deposit Types**

McCoy and others (1997), Hart and others (2002) and Baker and others (2006) discuss several gold deposit models for the Tintina Gold Belt, which can also be applied to a deposit model for the property (Figure 8.1). Intrusive-related gold (IRG) deposits in the Tintina Gold Belt are thought to be genetically related to mid-Cretaceous plutonic activity which affected a large area of northwestern British Columbia, Yukon, Alaska and the Russian Far East. Extensive geologic and structural mapping and analytical studies (major and trace element analysis, fluid inclusion microthermometry,  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology, and isotope analysis) have provided new information regarding gold metallogenesis in this the belt (Baker and others, 2006; Hart and others, 2002; Burns et al., 1991; Lelacheur et al., 1991; Hollister, 1991; McCoy and others, 1997). A synthesis of this information (Hart et al., 2002, McCoy et al., 1997) suggests a gold ore deposit model for the belt involves gold-bearing, high  $\text{CO}_2$  fluids which fractionate from ilmenite series, I-type mid-Cretaceous intrusions during the late phases of differentiation. The gold is deposited in anastomosing pegmatite and/or feldspar selvage quartz veins. Brittle fracturing and continued fluid convection caused concentration of gold bearing fluids both within the causative intrusions and within adjacent country rocks. In both environments the vast majority of the known deposits are associated with pre- or syn-mineral shear zones characterized by extensive quartz-sericite alteration. Replacement deposits, such as tungsten-gold skarn deposits, locally occur peripheral to the causative plutons, and are most commonly formed where carbonate and/or calcareous metabasite host rocks are in close proximity. Calcareous, carbonaceous and volcanoclastic rocks, where structurally prepared, are also known to host bulk-minable gold deposits, sometimes at considerable distances from source plutons.

The geologic setting, mineralization and alteration observed on the Golden Summit property are permissive of the following mineral deposit types:

1. Stockwork or shear-zone-hosted gold mineralization within porphyritic intermediate to felsic intrusives, and sometimes extending into adjacent country rocks. High level variants are characterized by gold-arsenic-antimony mineralization, and include examples such as Ryan Lode and the Silver Fox prospect in the Fairbanks Mining district. These examples probably represent high level types of these deposits. They typically have smaller volumes of intrusive rocks and more extensive hornfels zones. Deeper level variants include the Ft. Knox, Brewery Creek and Dublin Gulch gold deposits. The Dolphin stock is thought to represent a mid-level variant of this deposit category, because it has some characteristics of both shallow and deeper deposits. For example, deeper variants of these deposits are associated with elevated bismuth and tungsten, while shallower variants are associated with higher arsenic and antimony.
2. High grade (> 1 opt) auriferous quartz vein deposits, typically formed in shear zones and hosted in metamorphic rocks distal to causative (source) plutons. Associated metals include silver, arsenic, antimony, lead and locally tungsten. These vein deposits typically occur as low sulfide, carbonate-quartz veins with substantial quartz-sericite alteration envelopes sometimes extending 1000-2000m from the veins. Disseminated sulfides also commonly occur within the alteration envelopes. Several



- well-known examples of these types of vein deposits have produced large amounts of gold in the Fairbanks Mining District, including the Cleary Hill Vein (280,000oz), the Christina Vein (20,000oz), the American Eagle Vein (60,000oz), the Hi Yu Vein (110,000oz) and the Newsboy Vein (40,000oz).
3. Gneiss or schist-hosted gold-bearing quartz veins or metasomatic replacement zones proximal to or within causative intrusives. Metals associated include gold, bismuth, and arsenic and local copper and tungsten. Examples include the 5.6 million ounce Pogo gold deposit and the Gil gold deposit.
  4. Low grade, disseminated, shear zone-hosted gold-arsenic-antimony mineralization typically hosted in greenschist facies metavolcanic or metacarbonate rocks distal to causative (source) plutons. These deposits are associated with brittle thrust fault or detachment fault zones. Examples include the Money Knob gold deposit (18.5 million ounces gold) in the Livengood Mining District, and the True North gold deposit (1.3 million ounces gold) in the Fairbanks Mining District.
  5. Monomineralic massive stibnite mineralization containing trace gold, arsenic, silver and lead. These deposits typically occur as pods, lenses or veins and are thought to represent the distal end members of the large-scale intrusive-related hydrothermal gold systems. Examples include past antimony producers such as the Scrafford deposit in the Fairbanks Mining District and the Stampede mine in the Kantishna Mining District.

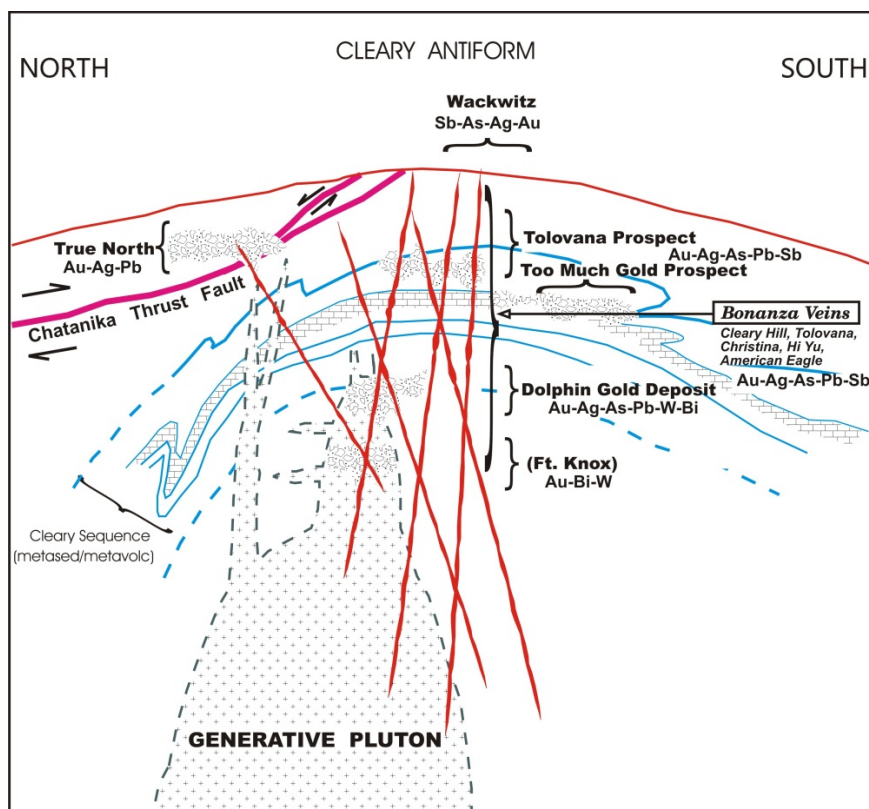


Figure 8.1. Deposit model for gold mineralization on the Golden Summit property.

## **9. Exploration**

Other than drilling, the only relevant exploration conducted on the Golden Summit property during 2011 was a induced polarization survey, which extended the survey completed in 2010 further towards the east. The results of the 2011 survey are not available to the author and are currently being interpreted. The survey now covers approximately 70% of the property; completion of the property-wide survey is anticipated during the 2012 field season.

## **10. Drilling**

Drilling on the Golden Summit property during 2011 consisted of diamond core drilling in three main target areas, including the Dolphin gold deposit, the Cleary Hill Mine area, and the Christina vein prospect. Freegold completed drilling a total of 36,317.5ft of HQ and NQTW core in 52 drill holes (Table 10.1; Figure 10.1). The primary drill target area during 2011 was the Dolphin gold deposit, where a significant gold resource has been established previously, pre-2011 drilling results (Adams and Giroux, 2011). This report update summarizes the drilling completed during 2011, however, many assay results were still pending in December 2011, when initial compilation of results for this report began. Assay results were available for 29 drill holes (GSDC1127-1155) have been evaluated for this report. All but three of these drill holes is located in the Dolphin resource area. The three drill holes not located in the Dolphin resource area are GSDC1144 and GSDC1146 (located east of Bedrock Creek and targeted on the Curry shear zone), and GSDC1155 (located near the mouth of Bedrock Creek and targeted on a IP/resistivity geophysical anomaly).

The locations of drill holes in the Dolphin gold deposit resource area are shown in Figure 10.2. Significant assay results for all drill holes with assays available in December 2011 are listed in Table 10.2.

Table 10.1. Drill holes completed on the Golden Summit property during 2011.

Hole	Easting_NAD27	Northing_NAD27	Elev_ft	Azimuth	Dip	TD_ft
GSDC1127	478952	7215066	1540	0	-90	906
GSDC1128	478952	7215130	1508	0	-90	649
GSDC1129	479000	7215099	1546	0	-90	599
GSDC1130	478992	7215047	1577	0	-90	679
GSDC1131	479100	7215083	1579	0	-90	637
GSDC1132	479006	7215195	1498	0	-90	1483
GSDC1133	479149	7215079	1585	0	-90	689
GSDC1134	479105	7215285	1483	0	-90	177.5
GSDC1135	479151	7215127	1557	0	-90	624
GSDC1136	479149	7215272	1474	0	-90	252.5
GSDC1137	479153	7215178	1520	0	-90	644
GSDC1138	479150	7215227	1502	0	-90	689
GSDC1139	479297	7215474	1275	0	-90	648
GSDC1140	479312	7215353	1318	0	-90	189
GSDC1141	479312	7215353	1318	346	-53	645
GSDC1142	479305	7215406	1292	348	-50*	645
GSDC1143	479245	7215406	1324	352	-49	657
GSDC1144	479552	7215501	1240	2	-50*	646
GSDC1145	479313	7215355	1318	0	-90	655.5
GSDC1146	479494	7215452	1298	349	-49	651
GSDC1147	479052	7215100	1549	0	-90	1693.5
GSDC1148	478919	7214987	1585	0	-90	1558
GSDC1149	479094	7215024	1600	0	-90	1323
GSDC1150	478977	7214997	1475	0	-90	846
GSDC1151	479049	7214991	1604	0	-90	944
GSDC1152	478904	7215250	1417	340	-50	333.5
GSDC1153	478904	7215250	1417	340	-70	326
GSDC1154	478904	7215250	1417	340	-90	438
GSDC1155	479295	7215878	1095	0	-90	539
GSDC1156	479939	7215686	1525	0	-55	654
GSDC1157	479943	7215729	1516	0	-55	660
GSDC1158	480004	7215656	1542	0	-55	783
GSDC1159	480004	7215656	1542	0	-70	903
GSDC1160	480005	7215693	1526	0	-55	788
GSDC1161	480097	7215648	1549	0	-55	578
GSDC1162	480148	7215552	1585	0	-55	652
GSDC1163	479718	7215641	1434	0	-55	406
GSDC1164	479757	7215636	1463	0	-55	444
GSDC1165	479806	7215630	1483	0	-55	975
GSDC1166	479686	7215489	1375	0	-55	803
GSDC1167	479718	7215667	1425	0	-55	689
GSDC1168	479754	7215666	1484	0	-55	761
GSDC1169	479807	7215667	1479	0	-55	837
GSDC1170	479805	7215704	1473	0	-55	243
GSDC1171	479753	7215696	1439	0	-55	720
GSDC1172	479719	7215694	1394	0	-55	268.5
GSDC1173	479663	7215703	1401	0	-55	351
GSDC1174	482343	7215992	1902	20	-50	868
GSDC1175	482327	7215962	1910	20	-50	818.5
GSDC1176	482324	7215926	1941	20	-50	736
GSDC1177	482521	7215862	1882	25	-50	841
GSDC1178	482608	7215828	1890	25	-50	775

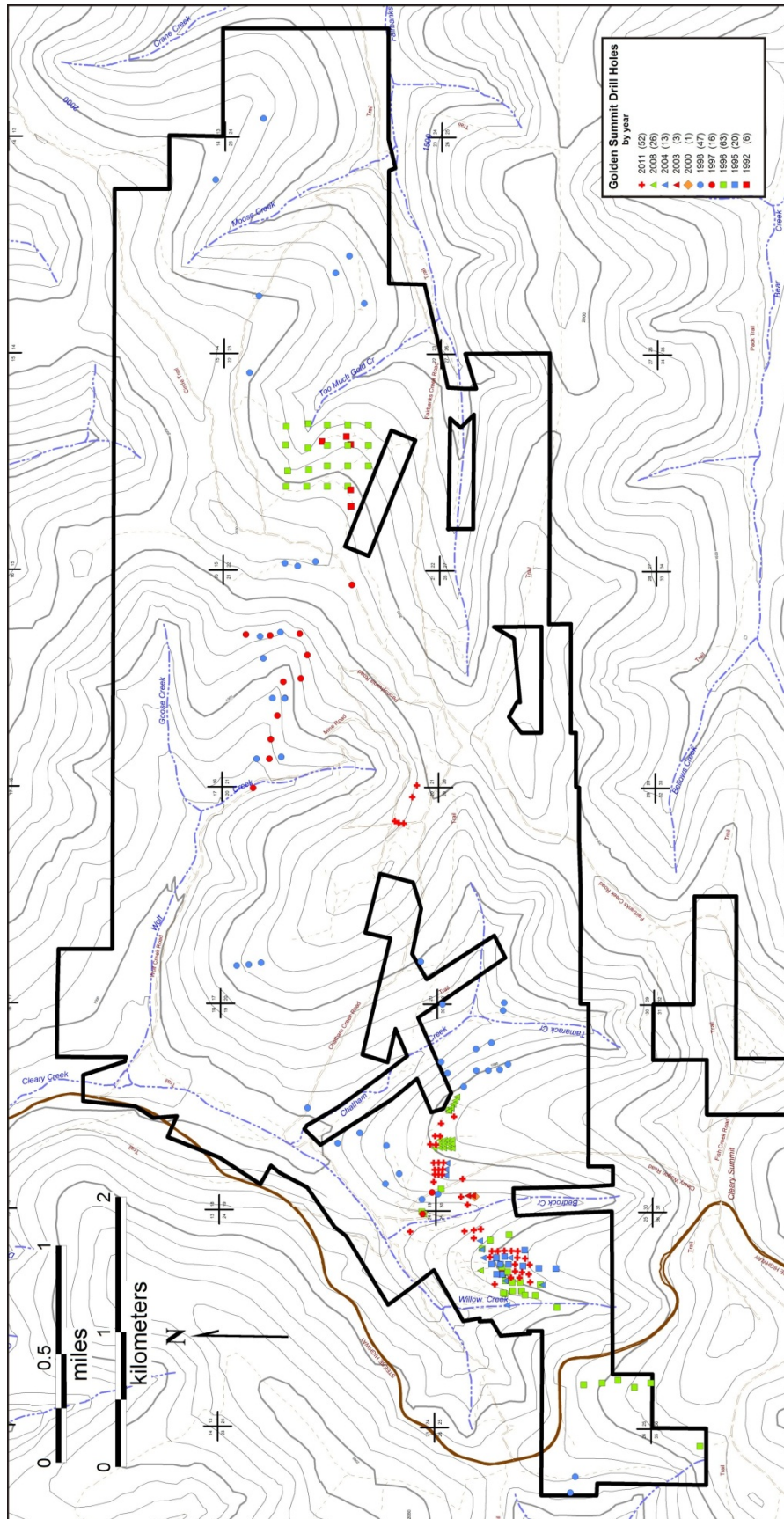


Figure 10.1. Map showing drill hole locations by year for the Golden Summit property.

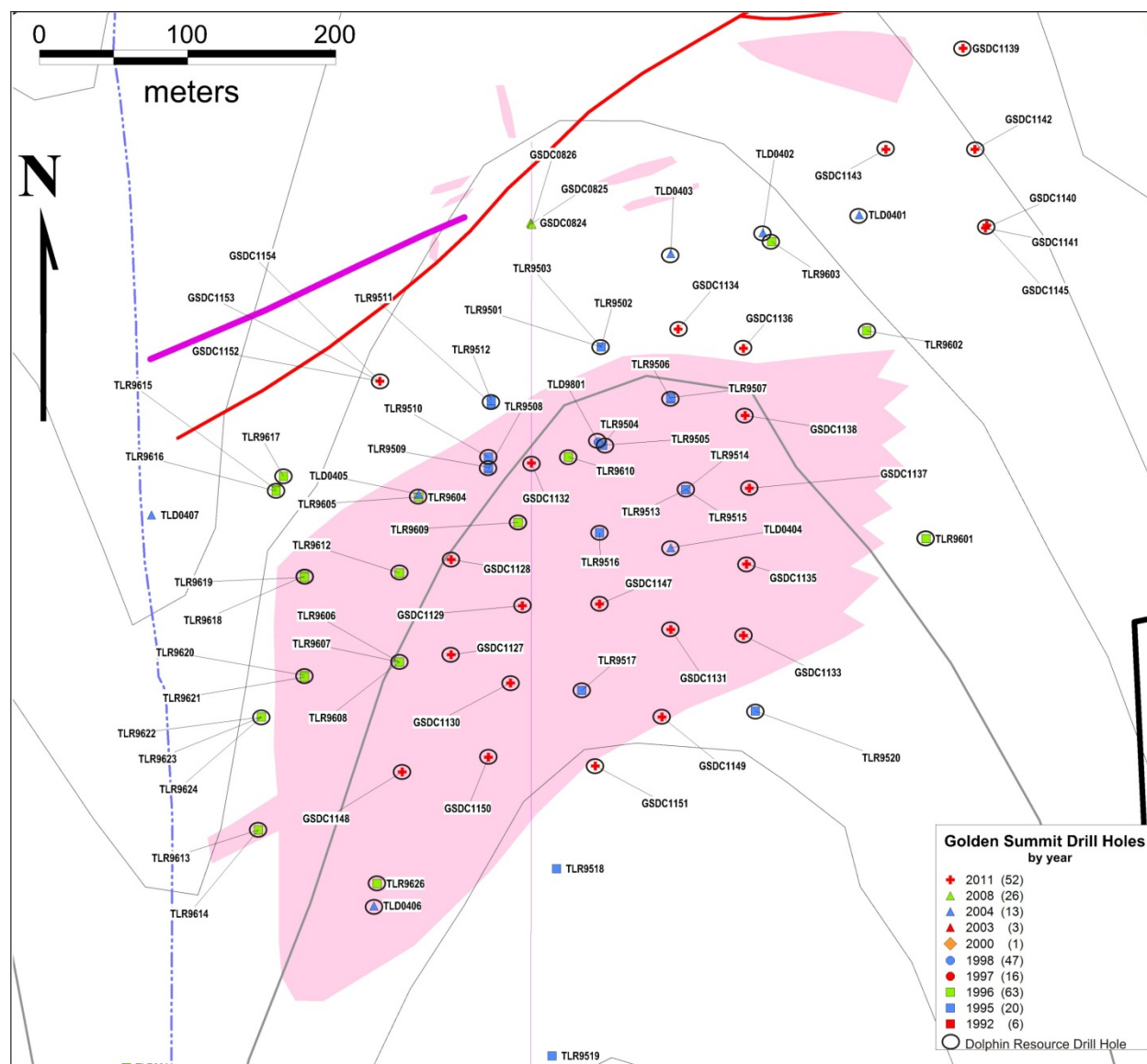


Figure 10.2. Dolphin gold deposit resource area map showing drill hole locations.

Table 10.2. Golden Summit property significant core drilling assay results for drill holes completed during 2011 and with results available through December 14, 2011. The results used a 0.3g/t cut-off grade over a minimum thickness of 9ft. Maximum internal dilution was variable, but typically ranged from 5-10ft, with a maximum of width 25ft.

Drill Hole	From (ft)	To (ft)	Interval (ft)	Interval (m)	Wt'd Av Au (g/t)	Wt'd Av Au (oz/t)
1127	89	244	155	47.24	0.37	0.011
1127	269	329	60	18.29	0.33	0.009
1127	349	589	240	73.15	0.55	0.016
1127	614	624	10	3.05	0.8	0.023
1127	649	906	257	78.33	0.34	0.01
1128	38	494	456	138.99	0.46	0.014
1128	519	634	115	35.05	0.35	0.01



1129	105.5	599	498.5	151.94	0.52	0.015
1130	32.5	374	341.5	104.09	0.59	0.017
1130	419	539	120	36.58	0.31	0.009
1130	564	679	115	35.05	0.39	0.011
1131	267	298	31	9.45	0.32	0.009
1131	538	637	99	30.17	0.46	0.013
1132	0	588	588	179.22	0.76	0.022
1132	609	619	10	3.05	0.66	0.019
1132	723	1483	760	231.65	0.71	0.021
1133	434	469	35	10.67	0.45	0.013
1133	534	688	154	46.94	0.34	0.01
1134	0	63	63	19.2	0.37	0.011
1135	262	429	167	50.9	0.56	0.016
1135	497	624	127	38.71	0.66	0.019
1136	32.5	222.5	190	57.91	0.43	0.013
1137	0	394	394	120.09	0.57	0.017
1138	10.5	44	33.5	10.21	0.34	0.01
1138	214	689	475	144.78	1.36	0.04
1139	0	148	148	45.11	0.5	0.015
1139	399	446.5	47.5	14.48	0.34	0.01
1139	512.5	584	71.5	21.79	0.34	0.01
1139	612.5	635	22.5	6.86	0.38	0.11
1140	35	49	14	4.27	0.49	0.014
1140	74	157	83	25.3	0.56	0.016
1141	22	490.5	478.5	145.85	0.76	0.022
1141	577	645.5	68.5	20.88	0.46	0.013
1142	0	27	27	8.23	0.76	0.022
1142	54.5	117	62.5	19.05	0.54	0.016
1142	247	444	197	60.05	0.32	0.009
1142	462.5	515	52.5	16	0.3	0.009
1142	535	570	35	10.67	0.35	0.01
1142	595	635	40	12.19	0.44	0.013
1143	6	192	186	56.69	1.02	0.03
1143	216	364	148	45.11	1.02	0.03
1143	462	550.5	88.5	26.97	2.07	0.06
1143	597	657	60	18.29	0.32	0.009
1144	20	104	84	25.6	0.63	0.018
1144	121	130	9	2.74	0.59	0.017
1144	511	524.5	13.5	4.12	0.37	0.011
1144	559	581	22	6.71	0.42	0.012
1145	29.5	43.5	14	4.27	0.54	0.016
1145	67	151	84	25.61	0.76	0.022
1145	205	301	96	29.26	0.45	0.013
1145	331.5	438	106.5	32.46	0.44	0.013
1145	474	589	115	35.05	0.83	0.024
1146	31	45	14	4.27	0.58	0.017
1146	91	131	40	12.2	0.32	0.009
1146	284	310	26	7.92	0.3	0.009
1146	383.5	412.5	29	8.84	0.43	0.013
1146	432.5	451	18.5	5.64	0.33	0.01
1146	462.5	576	113.5	34.6	0.37	0.011
1147	55	309	254	77.42	0.36	0.01
1147	409	1109	700	213.36	0.37	0.011
1147	1127.5	1693.5	566	172.52	0.94	0.027
1148	86.5	168	81.5	24.84	0.5	0.015

1148	203	283	80	24.38	0.44	0.013
1148	432	452	20	6.1	0.59	0.017
1148	955.5	1480	524.5	159.87	0.44	0.013
1148	1508	1554	46	14.02	0.62	0.018
1149	942	1269	327	99.67	0.33	0.01
1149	1314	1323	9	2.74	1	0.029
1150	0	14	14	4.27	0.33	0.01
1150	99	421	322	98.15	0.53	0.015
1150	449	845	396	120.7	0.49	0.014
1151	109	119	10	3.05	2.47	0.072
1151	138	499	361	110.03	0.44	0.013
1151	778	849	71	21.64	0.47	0.014
1151	884	944	60	18.29	0.56	0.016
1152	5	48	43	13.11	0.45	0.013
1152	158	183	25	7.62	1.69	0.05
1153	11	58.5	47.5	14.48	0.86	0.025
1153	191	210.5	19.5	5.94	0.62	0.018
1154	4	14.5	10.5	3.2	2.37	0.069
1154	58.5	80.5	22	6.71	0.65	0.019
1154	281	429.5	148.5	45.26	0.56	0.016

## **11. Sample Preparation, Analyses, and Security**

The following summarizes the procedure used for sample preparation, analyses and security for drill samples collected during the 2011 Golden Summit drilling program:

1. Core was moved by Avalon from the drill rig to the secure logging facilities at each shift change.
2. Core boxes were stacked in numerical order in the core logging area.
3. Core boxes were inspected for proper labeling and core in the boxes is inspected to insure that the core was placed in the boxes at the drill rig in the proper order with the proper footage markings on the core run blocks.
4. Core was moved to logging tables and placed in order by box number such that the lowest numbered box (with the shallowest drill core) is on the far left side of the logging bench and while the highest numbered box (with the deepest drill core) is on the far right side of the logging bench.
5. Core was washed with a spray bottle to remove polymer or other drill mud. Due to the presence of coarse, free gold, core was not washed with a brush since this could smear coarse gold particles from a mineralized to an unmineralized interval.
6. Core recovery (ratio of core recovered in a given core run to the actual length of the core run) was calculated and marked on the logging sheet for each core run interval pulled by the drilling company. This information was entered in the logs as a percent-recovered.
7. The RQD, or Rock Quality Designation was calculated for each core run. The RQD is the combined length of all whole core segment in each core run that were greater than 10 cm (4 inches) or longer than twice the core diameter, divided by the total length of the recorded core run multiplied by 100 (expressed in % form). The total

- length of core includes all lost core sections. Breaks in the core that result from the drilling process or extraction of the core from the core barrel are usually fresh looking and have rough edges. These mechanical breaks were ignored while calculating RQD. For the NQ2 drill core drilled at Golden Summit (diameter 1.995 inches), samples qualifying for addition in the RQD calculation would be 4 inches or more in length. RQD information was recorded in percentage form on the logging sheet for each core run interval pulled by the drilling company.
8. The drill core was logged by a senior geologist with experience in the rock type, alteration and mineralization. Details relating to lithology, structure, alteration and mineralization were recorded systematically. Lithologic details were compiled on paper logs, and later converted to digital format. Structural details were measured and their angle to core axis recorded in the log. Details relating to the thickness, angle and other aspects were recorded in the log. Hydrothermal alteration features, such as quartz or sericite alteration, were noted in the logs and details relating to its extent and intensity were recorded. Hydrothermal mineralization was recorded in the log. Details recorded include morphology, mineralogy and color of quartz veins, sulfide mineralogy, form and abundance (in volume %), metallic oxide mineralogy, form and relative abundance, and any other feature related to gold, gold-pathfinder or other metallic mineralization. The geologist took close-up digital photographs of unique or otherwise significant features described above.
  9. Following logging, the geologist selected sample intervals for geochemical analyses. Selection of sample intervals utilized all the visual rock information gathered by the logger as well as any information gathered through the use of additional tools such as an XRF hand held analyzer, hand held geophysical tools, ultraviolet lamp or any other analytical tool that provided additional information about the geologic environment and mineralization. Sample intervals did not cross core recovery block boundaries. Sample intervals were no longer than 5 feet in length and no shorter than 0.5 feet in length. The minimum core sample length was predicated on obtaining sufficient sample from which to create a 500 gram pulp. The selection of intervals for geochemical analysis focused on selecting the shortest sample interval that the accumulated logging information indicates was a unique zone, structure or area of mineralization. Similarly, wider zones that appear to be gold mineralized should also be sampled as a unit. Wooden blocks, designating the sample number and starting footage mark, were placed in the core boxes to guide the sampler. These sample blocks were marked in red while core footage run blocks were marked in black. Care was taken in assigning sample numbers to allow for insertion of blanks and standards into the sample stream. Blanks and standards comprised approximately 10% of the samples submitted to the lab from any given drill hole.
  10. The core was digitally photographed. In this process the core was wetted to enhance picture quality and photographed under high intensity electric lights with plain light spectrum bulbs. Each core box was photographed with a placard denoting hole number and footage contained in the box. Core run block and sample interval blocks were plainly visible in the pictures. Digital resolution was +5 mega-pixels to insure extremely high quality results. In addition to photographing each core box, close-up or macro photos were taken by the core logger of any obviously mineralized intervals, significant alteration or textures, noteworthy lithologic contacts, distinctive structural

- zones, etc. The core logger kept an accurate written log of the footage and hole number of these macro photos cross referenced to the digital file name. Once a given hole is photographed completely, the file name of the macro photos was changed to reflect the hole number and footage of each macro photo.
11. Once all hole photos from a given hole or part of a hole were taken, they were checked for quality and completeness by Alina Wyatt, Avalon's QA/QC manager. Unclear or incomplete photos were re-photographed, re-checked and added to the complete digital database for each hole.
  12. The original hand-written drill core logs were scanned to a digital format (Adobe pdf) and the resulting scans checked for clarity and completeness. Hard copy hand drill logs were converted to a digital drill log format (Excel format) to allow their use in GIS and/or resource estimation software. The Excel file was checked for accuracy and completeness against the original hand written drill log by a third party and any discrepancies rectified and errors or omissions corrected. Where necessary, the core logger referred to the core to make corrections, additions or other changes.
  13. Once QA/QC checks were completed on core logs and core photos, a digital copy of the core logs and core photos was burned to a DVD and stored off-site. In addition, these data were stored on at least 2 computers in two separate buildings on Avalon's premises and were transmitted to Freegold via ftp or email.
  14. Once all of the above steps were completed and verified by the Geologist, each marked geochemical sample interval was extracted from the core box and 100% of the core from that interval was placed in a canvas sample bag bearing the sample number on the sample interval block. Extra care will be taken to insure that only rock and rock fragments from the proper interval were collected in the sample bag. This sampling was done by a two person team who cross-referenced sample numbers of intervals on the core logs to the sample blocks and the sample numbers on the sample bags. The individual sample bags were sealed and stored in Avalon's warehouse for subsequent batch shipping to the geochemical lab.
  15. Once a core box was emptied of the core in it, the core box was discarded. Core boxes were not reused to eliminate the possibility of contaminating subsequent drill core from previously used boxes.
  16. Alina Wyatt and the core logger completed the geochemical laboratory submittal paperwork. Bagged and labeled samples were then be loaded into large nylon poly-sacks capable of holding 2,000 pounds. Representatives of the geochemical lab collected the poly-sacks and handled all sample preparation and analysis from that point forward. The minimum instructions required for each sample shipment included:
    - a. Project Name and client billing instructions.
    - b. Name or description for the sample preparation methods requested.
    - c. Name or description for the sample pulp size (500 grams).
    - d. Name or description of Au analysis procedure (Fire Assay, gravimetric finish) and description of over-limit condition and action required by laboratory.
    - e. Name or description of multi-element package analysis procedure (if any) and description of over-limit condition and action required by laboratory.
    - f. Method for distribution of analytical results.

All samples were analyzed by ALS Chemex Labs in Vancouver, BC, following sample preparation by Chemex in their Fairbanks, Alaska sample preparation lab facility.

## **12. Data Verification**

QAQC samples were inserted into the drill sample strings on the basis of approximately 1 QAQC sample per 3-5 assay samples (approximately 30%). A total of 10,790 samples were analyzed, including assay and QAQC samples. The types of QAQC samples used included standards, blanks and duplicates. Standards were inserted at a rate of approximately 7 standard samples per 100 assay samples (7%), blanks were inserted at a rate of approximately 2 blank samples per 100 assay samples (2.3%), and duplicates (a quarter-section of core) were inserted at a rate of approximately 1 duplicate sample per 100 assay samples (1%).

The standards used are commercially-available from a reputable vendor (Analytical Solutions). The standards used had values ranging from 0.098ppm gold to 7.15ppm gold. An attempt was made to use lower gold value standards (with higher base metal values) in zones known to contain higher sulfide contents, and higher gold value standards were used where high gold values in the core were suspected. Seventeen different standards were used, with fifteen expected values, including: 7.15ppm Au, 0.334ppm Au, 0.527ppm Au, 1.02ppm Au, 1.81ppm Au, 2.57ppm Au, 3.63ppm Au, 0.885ppm Au, 0.098ppm Au, 0.841ppm Au, 0.627ppm Au, 1.52ppm Au, 4.76ppm Au, 1.24ppm Au, 2.0ppm Au. All except three standard samples returned acceptable values (within approximately 15% of the expected value, or approximately one standard deviation). Those standard samples which returned suspect values were re-run at Avalon's request, and in all cases the re-assay values fell within the acceptable range.

Blank samples consisted of Browns Hill Quarry basalt, an unmineralized Quaternary basalt flow from the Fairbanks Mining District, Alaska. Avalon Development has an extensive data base of assay values for this material which provides a reliable base-line for determining expected geochemical values. All except five blank samples returned acceptable values. Those blank samples which returned suspect values were re-run at Avalon's request, and in all cases the re-assay values fell within the acceptable range.

## **13. Mineral Processing and Metallurgical Testing**

No mineral processing or metallurgical testing was completed for the Golden Summit project during 2011.

## **14. Mineral Resource Estimates**

Freegold contracted Giroux Consultants to update the gold resource present on the Golden Summit Project Fairbanks Mining District, Alaska. Gary Giroux was the Qualified Person responsible for the resource estimate. Mr. Giroux is a Qualified Person based on education, experience and his membership in a professional organization; criteria set out in National Instrument 43-101. Mr. Giroux is also independent of both the vendor and Freegold.



This update of the 43-101 resource reported in March 2011 (Adams and Giroux, 2011) was based on an additional 28 drill holes completed in 2011. The effective date for this resource is November 20, 2011.

## 14.1 Data Analysis

The data provided by Freegold consisted of 246 drill hole collars and 25,399 gold assays extending across the entire Golden Summit Property. Gold assays reported as less than the detection limit were replaced by a value of  $\frac{1}{2}$  that detection limit. Gold values reported as 0 ppb were also set to 1 ppb. A total of 69 gaps in the from-to record were found and values of 1 ppb Au were inserted to fill these gaps. Of the supplied drill hole data, 77 drill holes were drilled in the mineralized Dolphin Stock totalling 11,802 m (see Appendix 2 for a listing of drill holes used).

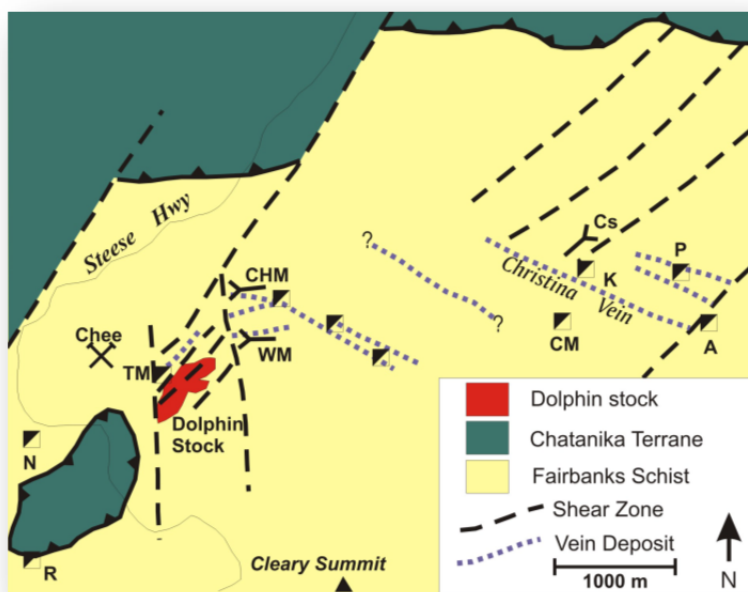
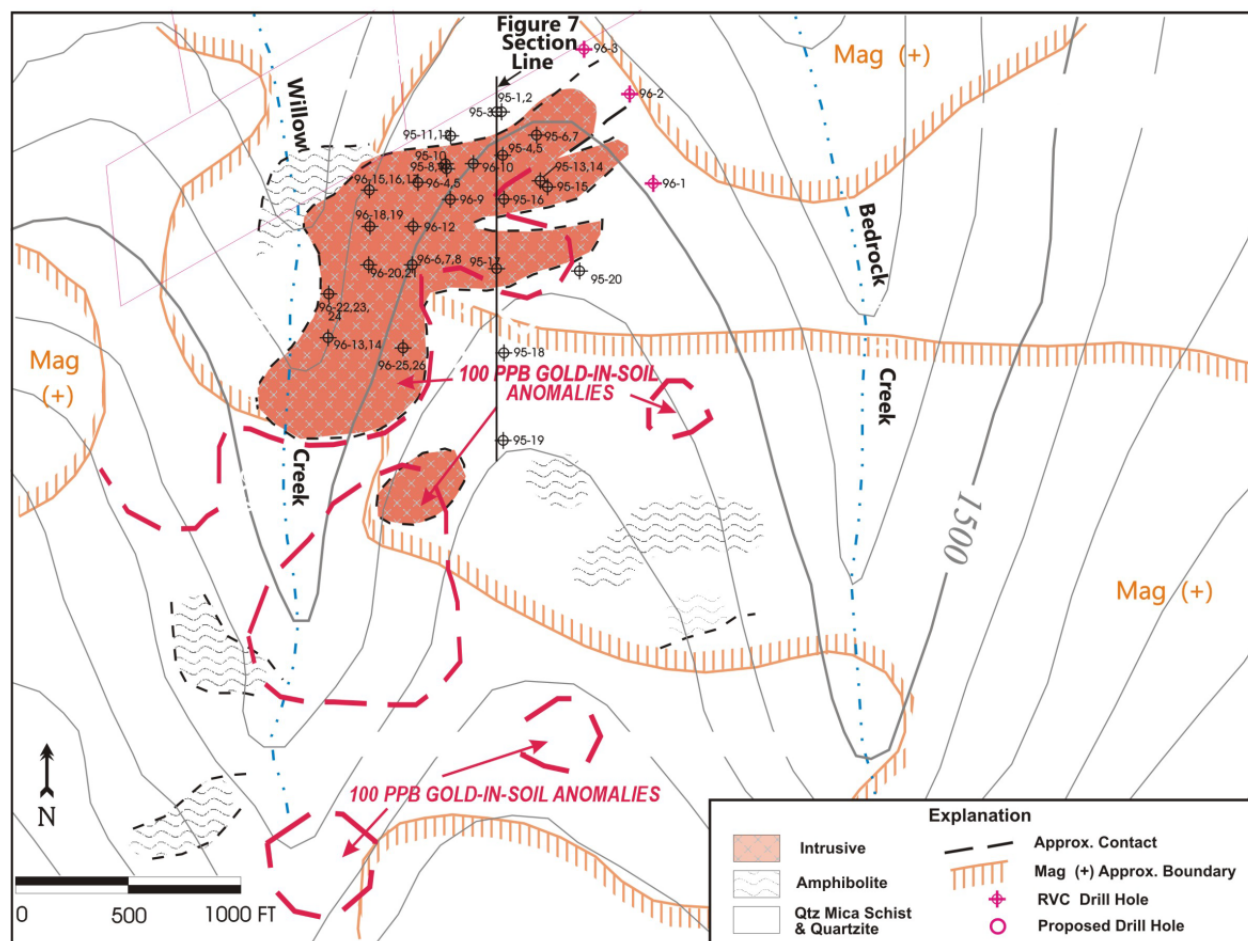


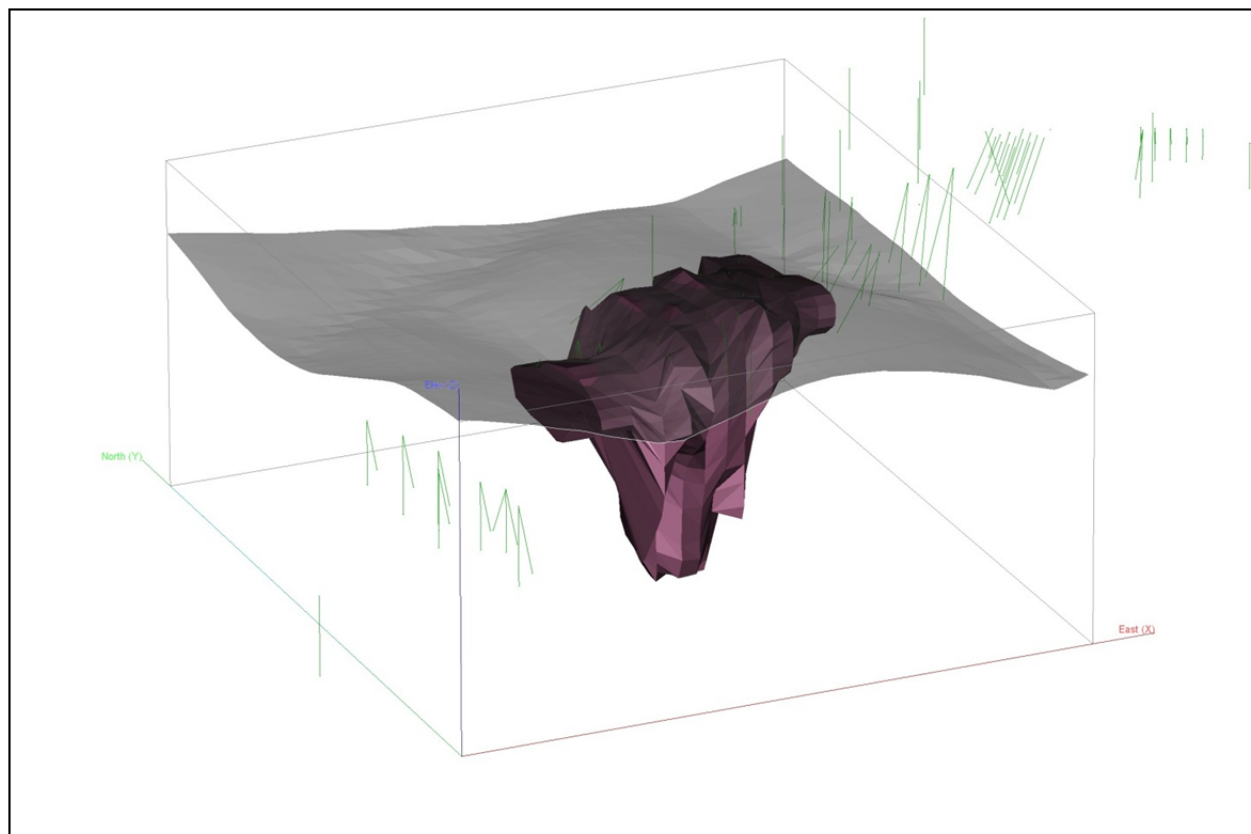
Figure 14-1: Local geology of the Dolphin Stock Area. (from Adams, 2010)

The Dolphin stock is a multi-phase intrusive located on the ridge between Willow Creek and Bedrock Creek. The stock has been traced on surface by soil sampling and RC drill data and represents an area of 1,200 by 2,000 ft. (366 x 610 m).



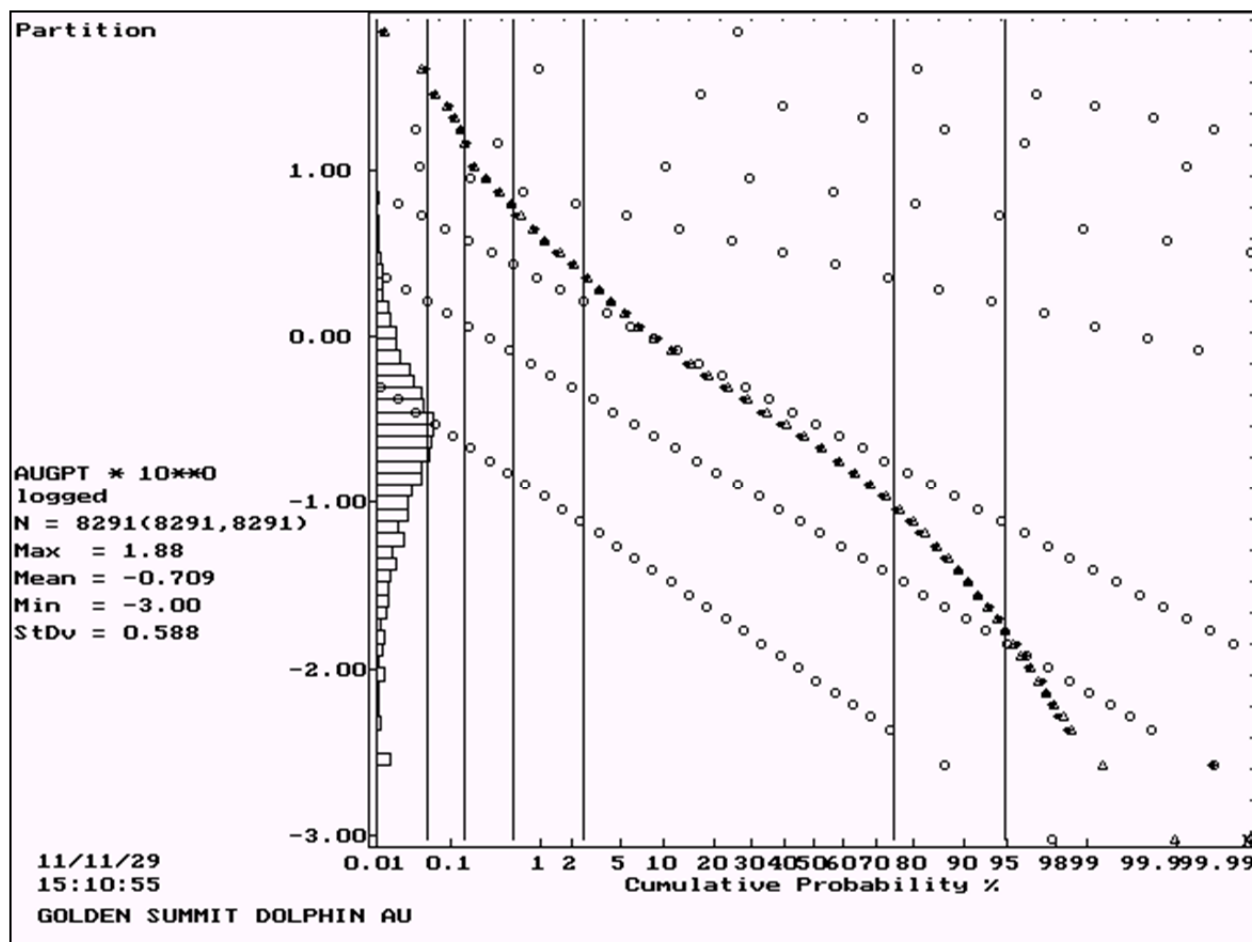
**Figure 14-2: Dolphin stock area geologic map, gold-arsenic soil anomalies, aeromag anomaly and drill holes (from Adams, 2010)**

A three dimensional mineralized solid was provided by Freegold to constrain the Dolphin Stock Zone Resource estimate.



**Figure 14-3: Isometric view looking NE showing the mineralized solid, drill hole traces and surface topography**

Drill holes were “passed through” these solids with the point each hole entered and left the solid recorded. Individual assays were then tagged with a code of mineralized if inside solid and waste if outside solid. The gold distributions, within the mineralized solids, were examined using a lognormal cumulative frequency plot to determine if capping was required and if so at what level. The procedure used is explained in a paper by Dr. A.J. Sinclair titled Applications of probability graphs in mineral exploration (Sinclair, 1976). In short the cumulative distribution of a single normal distribution will plot as a straight line on probability paper while a single lognormal distribution will plot as a straight line on lognormal probability paper. Overlapping populations will plot as curves separated by inflection points. Sinclair proposed a method of separating out these overlapping populations using a technique called partitioning. In 1993 a computer program called P-RES was made available to partition probability plots interactively on a computer (Bentzen and Sinclair, 1993). A screen dump from this program is shown for gold in Figures 14-4. On this plot the actual gold distribution is shown as black dots. The inflection points that separate the populations are shown as vertical lines and each population is shown by the straight lines of open circles. The interpretation is tested by recombining the data in the proportions selected and this test is shown as triangles compared to the original distribution.



**Figure 14-4: Lognormal cumulative frequency plot for gold assays within mineralized solids**  
A total of 7 over-lapping lognormal populations are indicated (see table below).

**Table 14-1: Gold Populations present within Mineralized Solid**

Population	Mean Au (g/t)	Percentage of Total	Number of Assays
1	54.14	0.05 %	4
2	22.76	0.10 %	8
3	7.72	0.38 %	32
4	2.89	1.98 %	164
5	0.30	72.69 %	6,026
6	0.07	19.62 %	1,627
7	0.009	5.19 %	430

Population 1 represents erratic outlier grades and should be capped. An effective cap would be 2 standard deviations above the mean of Population 2, a value of 37 g/t Au. A total of 4 assays were capped at 37 g/t Au. Populations 2, 3 and 4 might represent shear zone mineralization thought to strike to the north east and dip 40 to 50° to the northwest. Population 5 might represent the earlier stockwork style mineralization. Populations 6 and 7 could represent post mineral dykes and internal waste. Since there is insufficient data to model the higher grade shear zones an indicator approach was used.

**Table 14-2: Statistics for gold within mineralized Dolphin Solid**

	<b>Assay Au (g/t)</b>	<b>Capped Au (g/t)</b>
Number of Assays	8,291	8,291
Mean Au (g/t)	0.471	0.464
Standard Deviation	1.561	1.324
Minimum Value	0.001	0.001
Maximum Value	76.65	37.00
Coefficient of Variation	3.32	2.85

## 14.2 Composites

Uniform down hole 3 m composites were formed that honoured the mineralized solid boundaries. Intervals less than 1.5 m at the boundary of the solid were combined with the adjoining sample to produce a composite file of uniform support,  $3 \pm 1.5$  m in length. The statistics for 3 m composites are shown below.

**Table 14-3: Statistics for gold in 3m Composites within the Mineralized Solid**

	<b>Au (g/t)</b>
Number of Composites	3,797
Mean Au (g/t)	0.457
Standard Deviation	0.903
Minimum Value	0.003
Maximum Value	20.69
Coefficient of Variation	1.97

A lognormal cumulative probability plot was again used to evaluate the mineralized populations within 3 m composites. Figure 14-5 shows 7 overlapping lognormal populations with the erratic outlier population gone after capping.



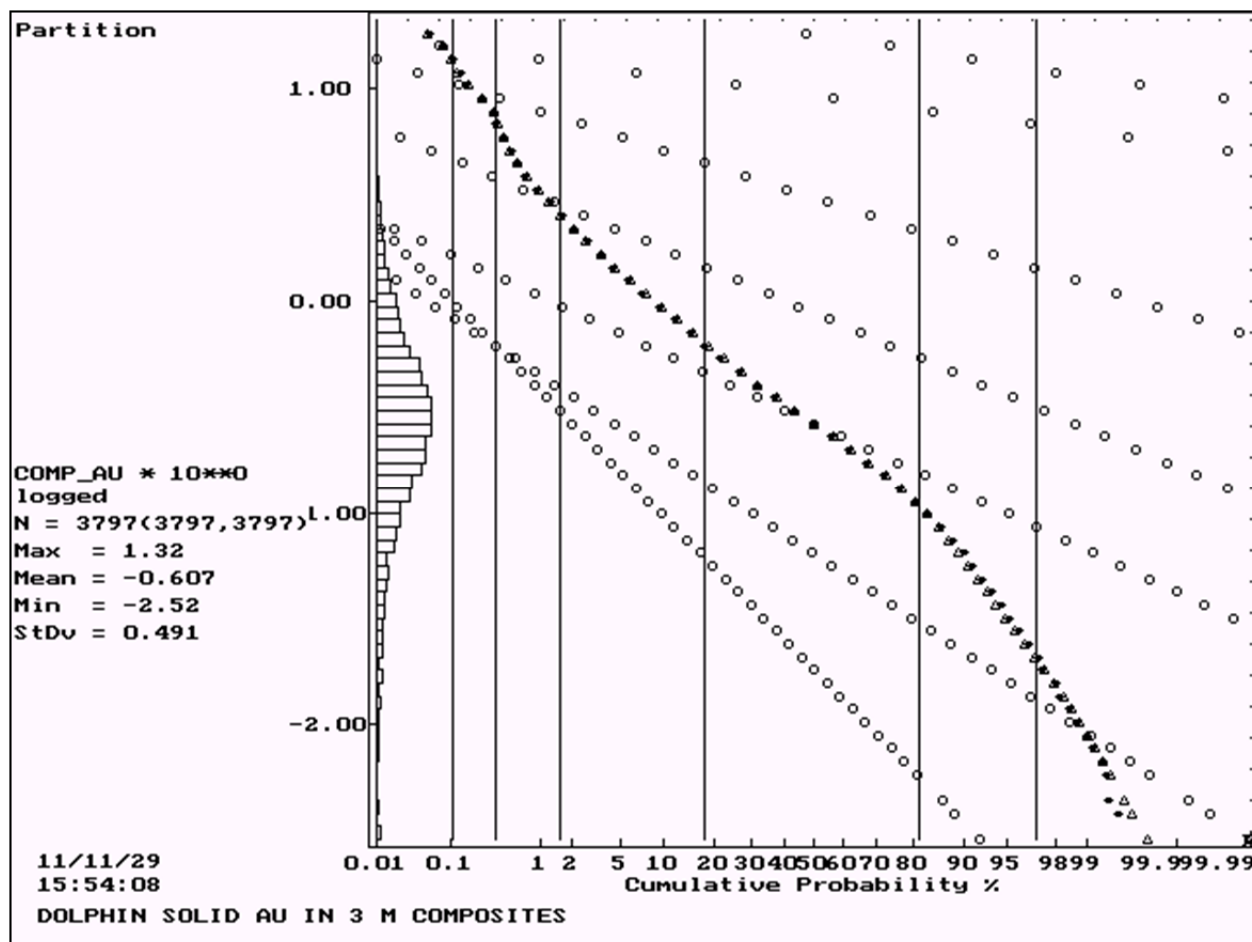


Figure 14-5: Lognormal cumulative frequency plot for gold 3 m composites within mineralized solids

Table 14-4: Gold Populations 3 m Composites within Mineralized Solid

Population	Mean Au (g/t)	Percentage of Total	Number of Assays
1	18.09	0.11 %	4
2	9.31	0.23 %	9
3	3.08	1.20 %	46
4	0.88	16.08 %	611
5	0.26	63.88 %	2,425
6	0.06	15.58 %	591
7	0.02	2.92 %	111

Populations 1 to 3 might represent the higher grade shear hosted gold mineralization while populations 4 and 5 might represent the more pervasive stockwork style gold. Populations 6 and 7 would represent post mineral dykes and other internal waste. A threshold that would separate populations 1-3 from population 4 would be two standard deviations above the mean of population 4, a value of 0.87 g/t Au.

An indicator approach to modelling these two styles of mineralization would set up a single indicator variable for each composite. The indicator would be defined as follows:

Au IND = 0 if Au < 0.87 g/t Au (stockwork style mineralization)

Au IND = 1 if Au ≥ 0.87 g/t Au (shear zone mineralization)

In this manner the data base is reduced to 0's and 1's for modelling.

### 14.3 Variography

Pairwise relative semivariograms were produced for gold in the low grade stockwork data ( $Au < 0.87$  g/t) and for the higher grade shear zone indicator variable for composites with  $Au \geq 0.98$  g/t. The longest range and therefore best continuity within the stockwork mineralization was 120 m along azimuth  $68^\circ$ . The longest range for the higher grade shear zone indicator variable was 130 m along azimuth  $90^\circ$ . In all cases geometric anisotropy was demonstrated with nested spherical models fit to the data. The semivariogram parameters are tabulated below and the models attached as Appendix 3.

**Table 14-5: Semivariogram Parameters**

Variable	Az/Dip	C <sub>0</sub>	C <sub>1</sub>	C <sub>2</sub>	Short Range (m)	Long Range (m)
Au in LG	68 / 0	0.20	0.10	0.15	30.0	120.0
	158 / -73	0.20	0.10	0.15	12.0	104.0
	338 / -17	0.20	0.10	0.15	8.0	20.0
HG IND	90 / 0	1.40	0.26	0.19	60.0	130.0
	0 / -85	1.40	0.26	0.19	15.0	134.0
	180 / -5	1.40	0.26	0.19	5.0	10.0

### 14.4 Block Model

A block model containing blocks 10 x 10 x 5 m in dimension was superimposed over the Dolphin mineralized solid with the percentage of each block below surface topography and within the solid recorded. The block model origin is shown below.

Lower Left Corner

Easting 478690 E

Column size = 10 m

69 Columns

Northing 7214760 N

Row size = 10 m

85 Rows

Top of Model

Elevation 540

Level size = 5 m

122 Levels

No Rotation

### 14.5 Bulk Density

A total of 7 specific gravity determinations, using the weight in air/ weight in water methodology, were made in 2011 from drill core in holes GSDC 1127 and 1128. An additional 23 determinations were completed in 2011 from holes GSDC 1128 to 1131. The single measurement in massive sulphide was ignored and the other six averaged to produce an average specific gravity of 2.63. It is recommended that more measurements be completed in future drilling, to determine if a relationship between density and grade exists.

**Table 14-6: Specific Gravity Determinations Dolphin**

Drill Hole	Depth (ft.)	Weight in Air (g)	Weight in Water (g)	Specific Gravity	Rock Type
GSDC 1127	270.50	227.70	186.00	5.46	massive sulfide
GSDC 1127	284.00	192.50	114.60	2.47	granodiorite
GSDC 1127	298.00	547.50	343.50	2.68	granodiorite
GSDC 1127	641.00	182.65	115.50	2.72	granodiorite

GSDC 1127	651.50	179.30	111.60	2.65	tonalite
GSDC 1128	321.00	511.70	308.30	2.52	tonalite
GSDC 1128	348.50	573.90	419.50	3.72	granodiorite
GSDC 1128	282.00	234.50	135.20	2.36	granodiorite
GSDC 1128	332.50	435.70	274.40	2.70	granodiorite
GSDC 1128	439.00	440.50	267.20	2.54	granodiorite
GSDC 1128	493.00	524.00	326.00	2.65	granodiorite
GSDC 1128	512.50	529.50	327.80	2.63	granodiorite
GSDC 1128	522.00	409.00	256.00	2.67	granodiorite
GSDC 1128	531.00	384.80	240.50	2.67	granodiorite
GSDC 1128	557.50	224.90	138.00	2.59	granodiorite
GSDC 1128	576.00	410.00	257.00	2.68	granodiorite
GSDC 1128	582.00	473.00	296.50	2.68	granodiorite
GSDC 1128	584.00	134.20	79.50	2.45	granodiorite
GSDC 1128	621.00	297.80	178.70	2.50	granodiorite
GSDC 1128	643.00	164.00	101.80	2.64	granodiorite
GSDC 1129	13.50	398.90	240.20	2.51	granodiorite
GSDC 1130	271.00	479.60	292.00	2.56	granodiorite
GSDC 1130	545.00	486.30	294.70	2.54	CHL-GRD
GSDC 1130	594.00	391.40	231.70	2.45	AGRD
GSDC 1130	620.00	318.10	198.90	2.67	SGRD
GSDC 1130	644.00	418.40	258.00	2.61	RHY PORPH
GSDC 1131	332.50	435.70	274.40	2.70	
GSDC 1131	496.00	397.90	233.60	2.42	DAC PORPH
GSDC 1131	528.00	424.50	263.90	2.64	SGRD
GSDC 1131	636.00	301.70	186.10	2.61	SGRD

AVERAGE

2.63

## 14.6 Grade Interpolation

Grades for the lower grade stockwork style mineralization were first interpolated into blocks using only composites < 0.87 g/t Au. The interpolation was done by ordinary kriging in four passes. The first pass used a search ellipse with dimensions equal to ¼ the semivariogram range for low grade Au. A minimum of 4 composites (from composites within the mineralized solid but less than 0.87 g/t Au), were required to estimate the block. For blocks not estimated in pass 1 a second pass using dimensions equal to ½ the semivariogram range was attempted. Again a minimum of 4 composites were required to make an estimate. For blocks not estimated a third pass using the full range and a fourth pass using twice the range completed the estimation process. In all passes a maximum of 12 composites were used with a maximum of 3 coming from any single drill hole. This exercise determined a grade for the low grade (stockwork) portion of the block.

A second kriging exercise was then completed estimating the high grade indicator or the probability of finding high grade within any given block. This estimation was completed using the 0 or 1 indicator value for composites within the mineralized solid and resulted in a value between 0 and 1. Again ordinary kriging was used in a series of 4 passes with the search ellipse dimensions for each pass a function of the high grade indicator semivariogram. Finally, for blocks with a kriged indicator value greater than zero, a high grade gold value was estimated from composites within the mineralized solid greater than or equal to 0.87 g/t Au. A similar 4 pass estimate was made with the search ellipse dimensions a function of the high grade gold indicator variogram. Blocks estimated for low grade Au but not estimated for HG IND were not included.

The final grade for each block was a weighted average of the two styles of mineralization.

$$\text{Au Total} = (\text{LG Au} * (1.0 - \text{IND})) + (\text{HG Au} * \text{IND})$$

Where Au Total is the weighted average grade for the block

LG Au is the grade of the stockwork or low grade portion of block  
 HG Au is the grade for the shear zone or high grade portion of block  
 IND is the probability between 0 and 1 that high grade exists in the block

The search parameters for the various kriging runs are tabulated below.

**Table 14-7 : Kriging Parameters**

Variable	Pass	Number Estimated	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)
LG Au	1	1,857	68 / 0	30.0	158 / -73	26.0	338 / -17	5.0
	2	19,723	68 / 0	60.0	158 / -73	52.0	338 / -17	10.0
	3	61,231	68 / 0	120.0	158 / -73	104.0	338 / -17	20.0
	4	39,449	68 / 0	240.0	158 / -73	208.0	338 / -17	40.0
HG IND	1	1,213	90 / 0	32.5	0 / -85	33.5	180 / -5	2.5
	2	16,475	90 / 0	65.0	0 / -85	67.0	180 / -5	5.0
	3	48,696	90 / 0	130.0	0 / -85	134.0	180 / -5	10.0
	4	47,134	90 / 0	260.0	0 / -85	268.0	180 / -5	20.0
HG Au	1	133	90 / 0	32.5	0 / -85	33.5	180 / -5	2.5
	2	2,436	90 / 0	65.0	0 / -85	67.0	180 / -5	5.0
	3	15,229	90 / 0	130.0	0 / -85	134.0	180 / -5	10.0
	4	27,843	90 / 0	260.0	0 / -85	268.0	180 / -5	20.0

## 14.7 Classification

Based on the study herein reported, delineated gold mineralization of the Dolphin Zone at the Golden Summit Project are classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):

*"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 Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."*

The terms Measured, Indicated and Inferred are defined by CIM (2005) as follows:

*"A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals 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 term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase 'reasonable prospects for economic extraction' implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports."*



### ***Inferred Mineral Resource***

*“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, workings and drill holes.”*

*“Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.”*

### ***Indicated Mineral Resource***

*“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.”*

*“Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.”*

For the mineralized Dolphin zone the geological continuity has been established through surface mapping and diamond drill hole interpretation. Grade continuity can be quantified by semivariogram analysis. Blocks estimated in Pass 1 or Pass 2, using up to ½ the semivariogram range, during the low grade gold estimation, were classified as Indicated. All other blocks were classified as Inferred.

The results are tabulated below assuming one could mine to the limits of the mineralized solids. At this time, no economic analysis has been completed for the Dolphin zone, and as a result the economic cut-off is unknown. A value of 0.3 g/t Au has been highlighted as a possible cut-off for open pit extraction.

**Table 14-8: DOLPHIN ZONE INDICATED RESOURCE**

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Contained	
			kgs Au	ozs Au
0.20	22,300,000	0.53	11,890	382,000
<b>0.30</b>	<b>17,270,000</b>	<b>0.62</b>	<b>10,620</b>	<b>341,000</b>
0.40	12,450,000	0.72	8,940	287,000
0.50	8,720,000	0.83	7,270	234,000
0.60	6,280,000	0.95	5,930	191,000
0.70	4,540,000	1.06	4,810	155,000
0.80	3,270,000	1.18	3,860	124,000
0.90	2,450,000	1.29	3,170	102,000

1.00	1,760,000	1.43	2,520	81,000
1.10	1,320,000	1.56	2,060	66,000
1.20	990,000	1.70	1,680	54,000
1.30	760,000	1.83	1,390	45,000
1.40	590,000	1.98	1,170	38,000
1.50	460,000	2.12	970	31,000

**Table 14-9: DOLPHIN ZONE INFERRED RESOURCE**

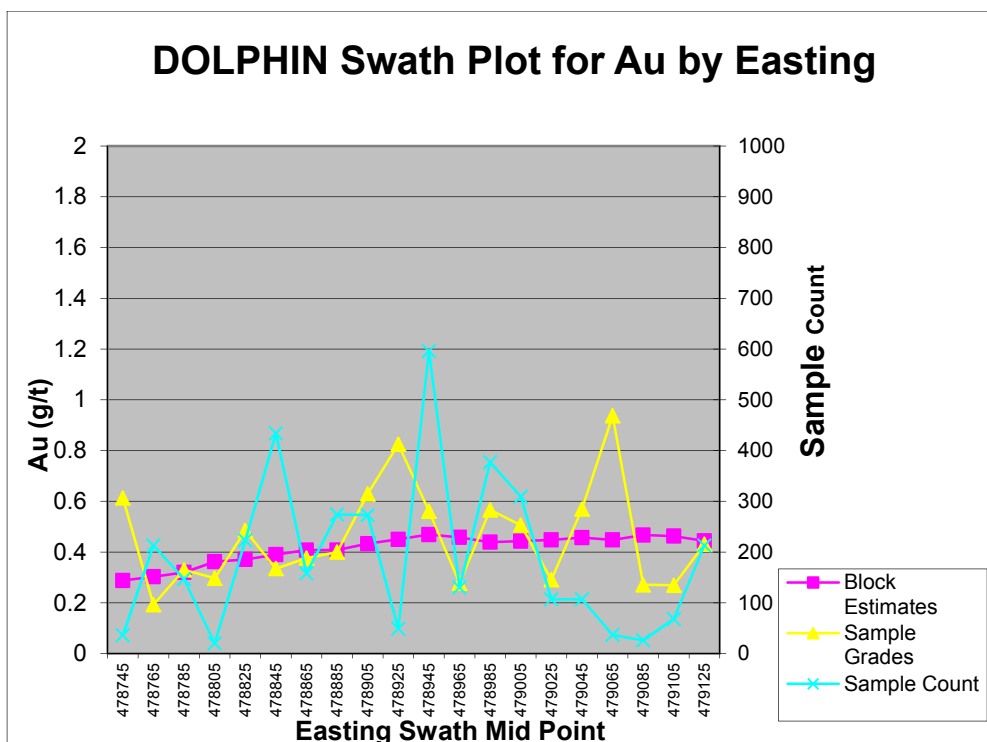
Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Contained	
			kgs Au	ozs Au
0.20	92,820,000	0.46	42,420	1,364,000
<b>0.30</b>	<b>64,440,000</b>	<b>0.55</b>	<b>35,310</b>	<b>1,135,000</b>
0.40	39,740,000	0.68	26,820	862,000
0.50	24,360,000	0.82	19,980	642,000
0.60	15,830,000	0.97	15,320	493,000
0.70	11,000,000	1.11	12,210	393,000
0.80	7,760,000	1.26	9,790	315,000
0.90	5,810,000	1.40	8,150	262,000
1.00	4,500,000	1.54	6,910	222,000
1.10	3,560,000	1.66	5,920	190,000
1.20	2,910,000	1.78	5,180	167,000
1.30	2,240,000	1.94	4,340	140,000
1.40	1,770,000	2.10	3,710	119,000
1.50	1,450,000	2.24	3,240	104,000

## 14.8 Model Verification

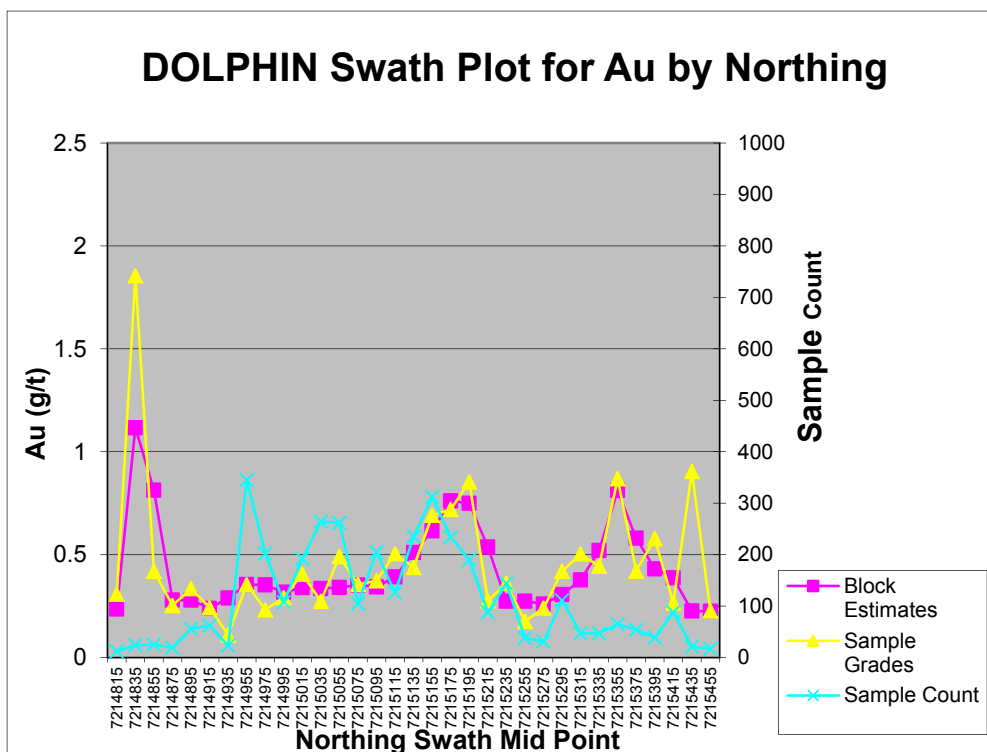
In order to verify the block model results, two methods were used: swath plots and cross sections.

Swath plots take slices through the mineral deposit comparing average grades of blocks with the average grades of composites. The results are shown for east-west slices (Figure 14-4), for north-south slices (Figure 14-5) and for slices in the vertical plane (Figure 14-6). In general the block estimates match very well with the sample grades with the larger deviations occurring in areas with few sample points at the horizontal extremities of the zone and at the very bottom.

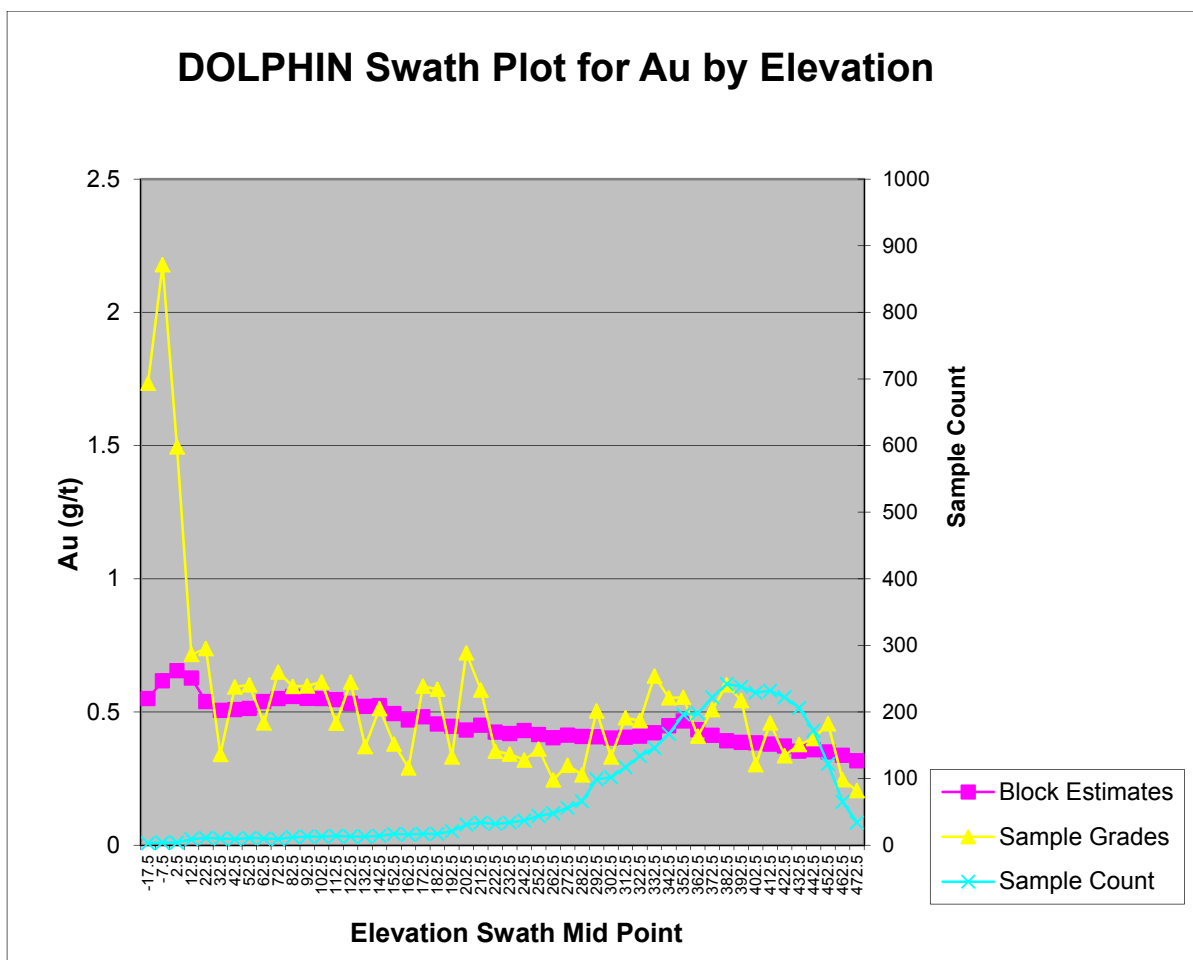
Cross sections were evaluated with block grades compared to composite grades with the results appearing reasonable. Three examples are shown as Figure 14-7 to 14-9.



**Figure 14-6: Swath plot for Au along east-west slices**

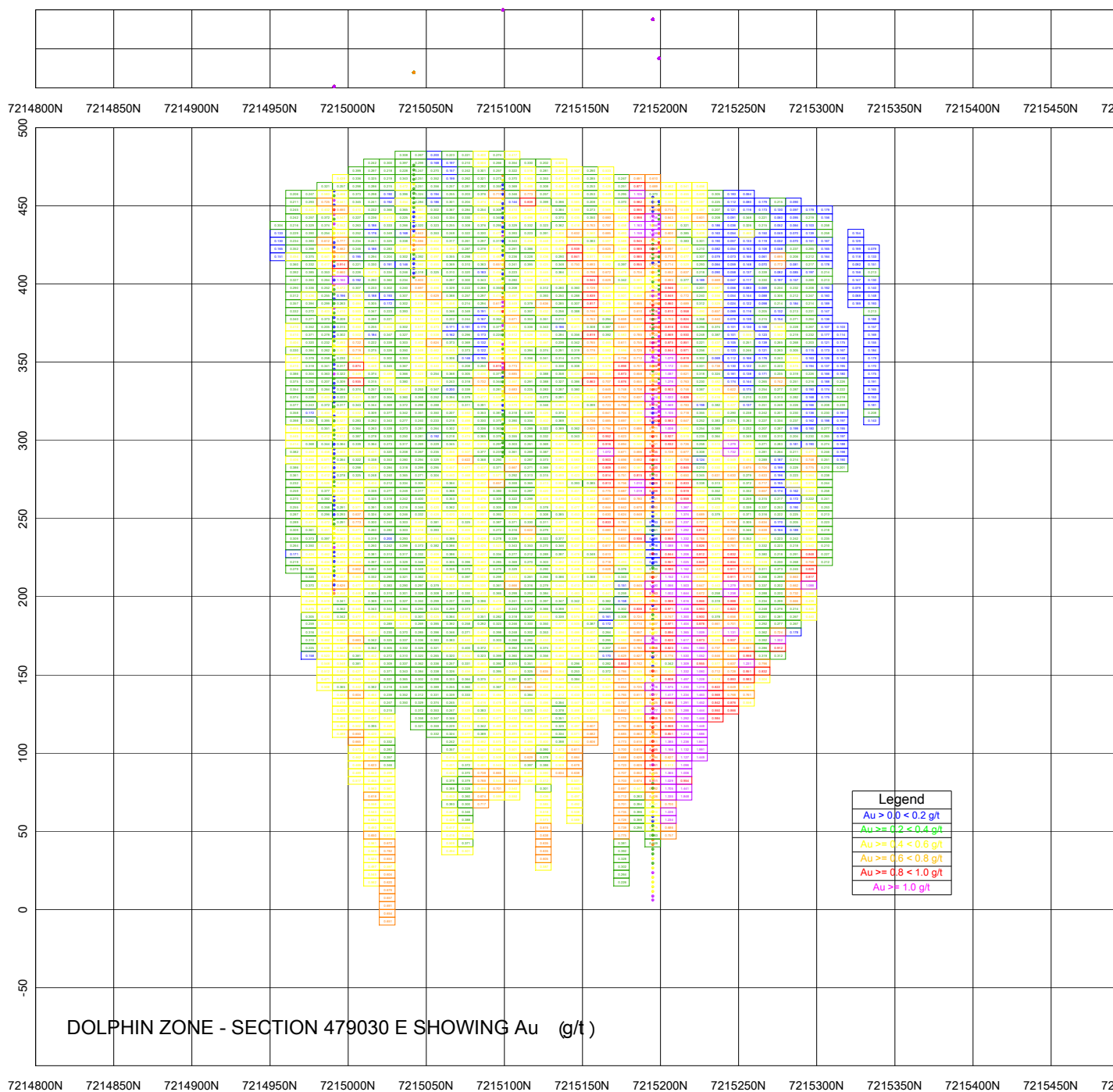


**Figure 14-7: Swath plot for Au along North-South slices**

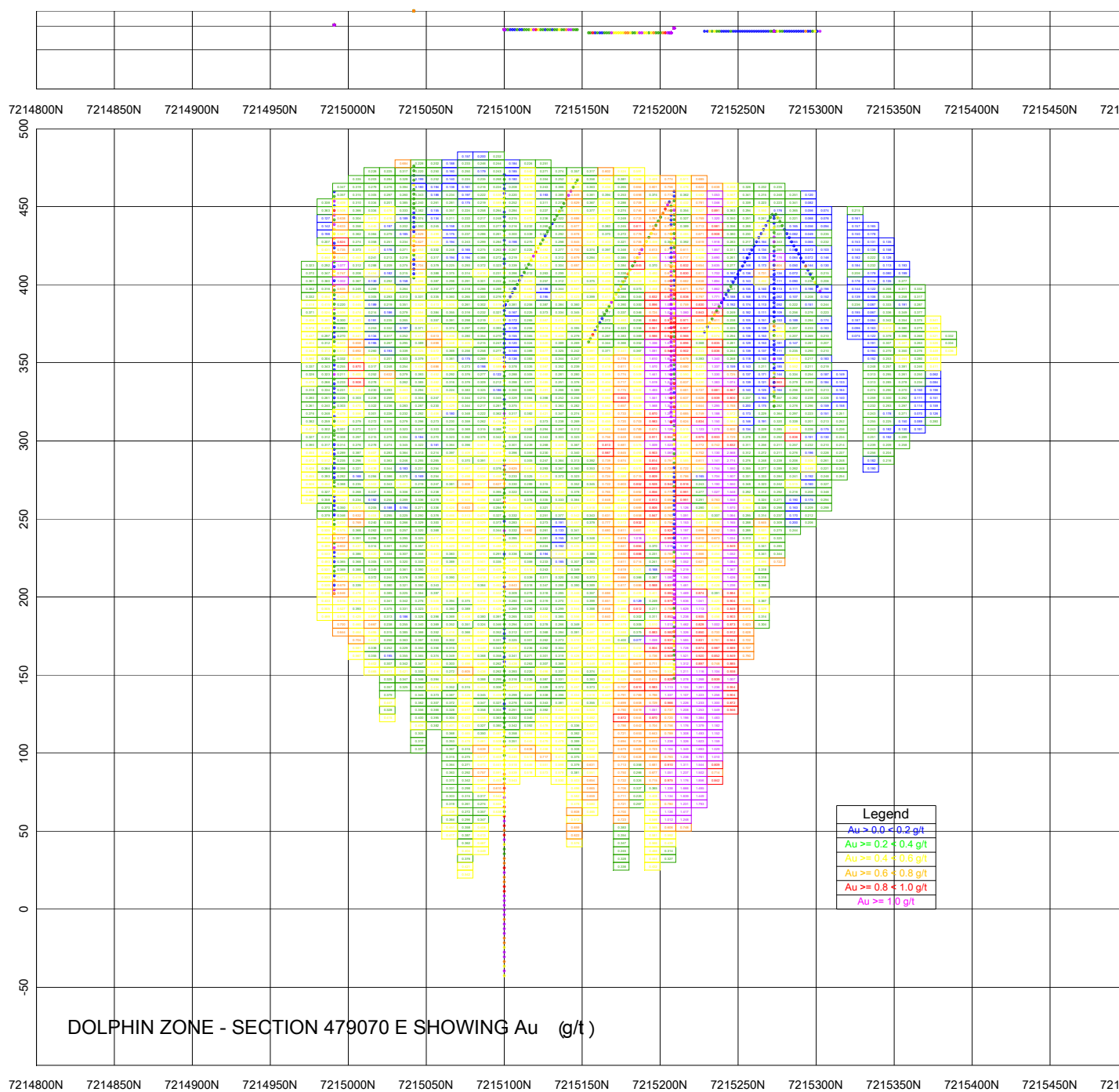


**Figure 14-8: Swath plot for Au along vertical slices**

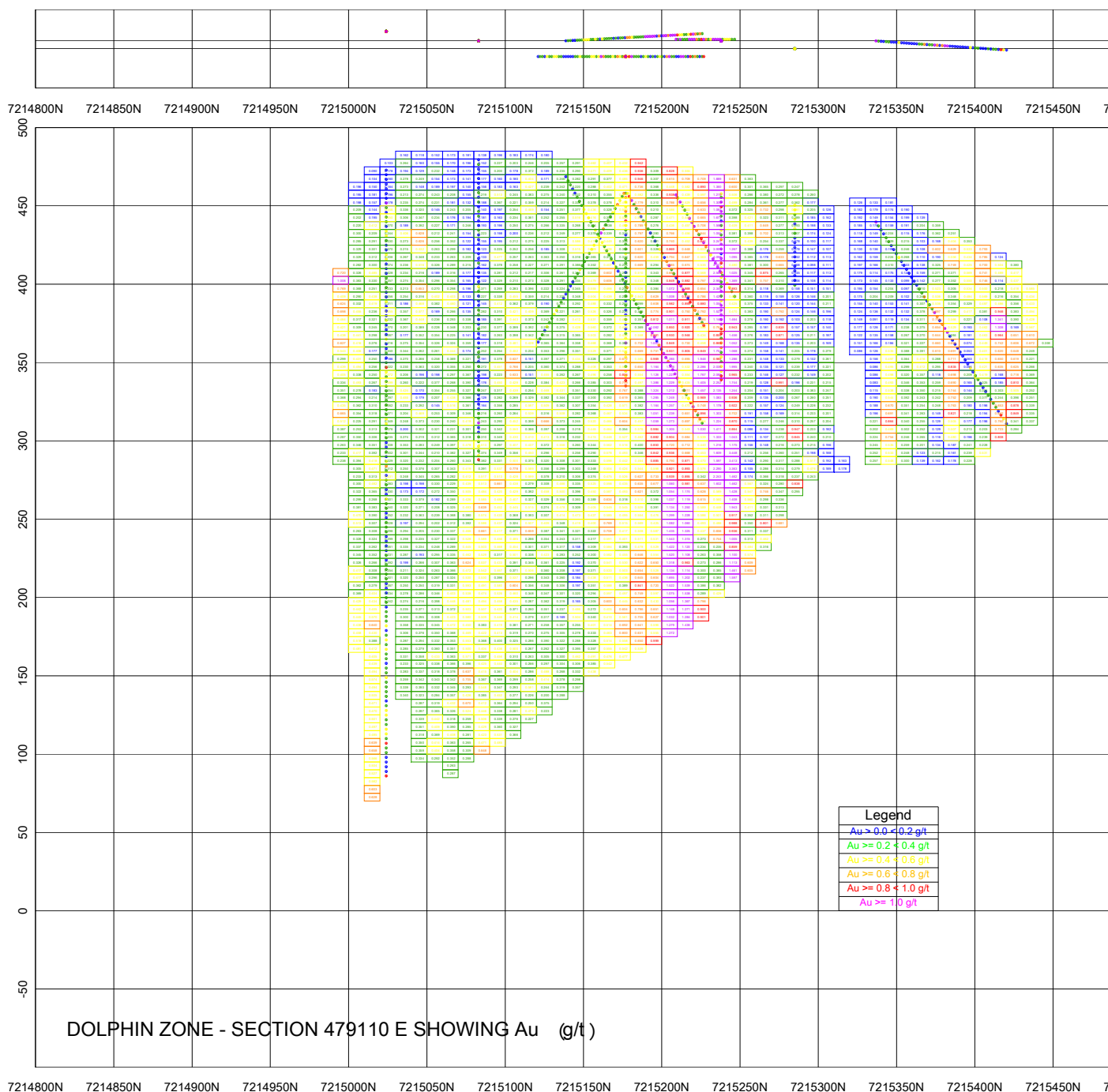




**Figure 14-9: Dolphin Zone Section 479030 E**



**Figure 14-10: Dolphin Zone Section 479070 E**



**Figure 14-11: Dolphin Zone Section 479110 E**

## **15-22. (Items Omitted)**

Items 15-22 omitted since the Golden Summit property does not qualify as an “advanced property”.

## **23. Adjacent Properties**

The Golden Summit property is surrounded by over a dozen small to moderate size properties owned by small companies and individuals. Several of these properties contain old mines and known-gold-bearing prospects (Freeman, 1992).

## **24. Other Relevant Data and Information**

To the best of the author’s knowledge, there are no other data available to the author that bear directly on the information presented in this report.

## **25. Interpretations and Conclusions**

The Golden Summit property is located about 20mi northeast of Fairbanks, Alaska. Access to the property is excellent, as is infrastructure support for exploration activities. All claim holdings comprising the property are in good standing, and no encumbrances to future mining activities are known or anticipated. Several historic gold mines are located on the property, and open pit gold mining is ongoing at the nearby Ft Knox gold deposit. Freegold acquired interest in the property in 1990, and since that time has conducted extensive surface exploration at numerous prospects over much of the property, including reconnaissance rock sampling, mapping, property-wide grid-based soil sampling, and several trenching projects at key prospects. Most of Freegold’s drilling efforts have been focused on the west portion of the property. Freegold conducted drilling on the Dolphin gold deposit in 1995-1996, 1998, 2004, 2008 and 2011.

Gold mineralization is the only type of economic mineralization known on the Golden Summit property at this time. Gold mineralization on the property occurs in three main forms, including 1) intrusive-hosted sulfide-quartz stockwork veinlets (such as the Dolphin gold deposit), 2) auriferous sulfide-quartz veins (exploited by historic underground mines), and 3) shear-hosted gold-bearing veinlets. All three types are considered to be part of a large-scale intrusive-related gold system (or “IRGS”) on the property. The Dolphin gold deposit is hosted in the Dolphin stock, which consists largely of granodiorite and tonalite, similar to the Pedro Dome pluton. It is the only known large intrusive body known on the property at this time. The Dolphin stock is approximately the same age as the nearby Ft Knox pluton, which hosts the Ft Knox gold deposit. Freegold made the initial discovery of widespread low-grade gold mineralization in the Dolphin stock during the initial drilling campaign on the prospect in 1995. Freegold is also focusing on exploration of large zones of shear-hosted gold-bearing veinlets, including several zones in the Cleary Hill Mine area. These types of zones also occur at the Too Much Gold prospect and at the Circle Trail and Saddle prospects.

In March 2011 a preliminary gold resource for the Dolphin gold deposit, using kriging methods, was estimated using pre-2011 drill results. This evaluation, using a 0.3g/t cut-off, outlined a gold resource estimate of 7,790,000 tonnes at 0.695g/t “indicated” (174,000 ounces), and 27,010,000 tonnes at 0.606g/t “inferred” (526,000 ounces). Resource drilling on the deposit during 2011 added 18,927.5ft in 26 additional drill holes. The new drill data was added to the existing resource data base, and a new resource estimate was completed in November 2011 (discussed in this report). The new gold resource estimate for the Dolphin deposit, utilizing a 0.3g/t cut-off, is 17,270,000 tonnes at 0.62g/t “indicated” (341,000 ounces) and 64,440,000 tonnes at 0.55g/t “inferred” (1,135,000 ounces). Based on the sections shown in Figures 14-7 to 14-9, some additional conclusions are as follows:

- A higher grade east-west shear zone, centred roughly on coordinate 7215200 N, appears to extend through all sections and be open both to the east and west subject to favorable geology.
- There appears to be several sub parallel smaller high grade shears both north and south of this main shear zone.
- As shown on section 479070 E (Figure 14-8) drill hole GSDC1147 extends below the estimated blocks with good grades. These blocks were not estimated due to the kriging requirement of a minimum 4 composites with a maximum of 3 from a single hole. This stipulation requires a minimum of two drill holes to be found to estimate a block. The other two deep holes GSDC1132 and GSDC1148 also bottomed in good grades. This is also reflected in Figure 14-6 showing the higher grades at depth.
- There is a gap in the blocks estimated, centred on 7215320 N, that could be filled with a few additional drill holes.

## **26. Recommendations**

It is recommended that drilling be continued in the Dolphin gold resource and Cleary Hill Mine areas; proposed drill holes are shown in Figure 26.1. The geology of the deposit is still poorly understood largely due to lack of bedrock exposure and insufficient drilling. The geologic model of the of the Dolphin gold deposit needs further refinement. Several drill holes in the Dolphin resource area which have been split and assayed, but not logged, are scheduled to be logged in early 2012.

Continued core drilling on the Golden Summit property should be designed to:

7. Increase the Dolphin gold resource by a) drilling deeper holes in the central portion of the deposit, b) drilling shallow to moderate depth holes in un-tested areas adjacent to the south and east portions of the deposit, and c) drilling a limited number of exploration drill holes in locations more distal to the resource. These exploration drill holes should target areas where gold-bismuth anomalous soils are known to the south of the deposit and on the west side of Willow Creek, and areas where IP/resistivity survey data suggests the presence of possible shallow intrusive rocks to the southeast of the deposit.
8. Move more ounces into the “drill-indicated” category by drilling strategically located infill drill holes.



9. Evaluate potential bulk tonnage gold mineralization associated with large zones of shear-hosted veinlets. Specific target areas with the greatest potential include the F1, Wackwitz-Curry and Beistline zones in the Cleary Hill Mine area, and the Scheuymeyer zone in the Tolovana Mine area.
10. Expand the Dolphin resource area towards the northeast to eventually connect with potential resource areas associated with shear-hosted veinlet zones including the Wackwitz-Curry, Colorado and F1 zones.
11. Drill additional drill holes on the Christina vein prospect to begin evaluating this high grade auriferous quartz vein target and underground mine potential.
12. Drill additional drill holes on the Too Much Gold prospect, and use and combine these drill results with past drill results to estimate gold resources in this area.

During 2012 a first phase drilling program should focus on objectives 1 and 2 discussed above. The estimated cost of the first phase drilling program is US \$2,000,000. A second phase drilling program should focus on objectives 3 and 4 discussed above. The estimated cost of the second phase drilling program is US \$2,000,000; this drilling phase is not contingent on phase 1 drilling results and could be conducted concurrently. A third phase drilling program should focus on objectives 5 and 6 discussed above. The estimated cost of the third phase drilling program is US \$2,000,000; this drilling phase is not contingent on either phase 1 or 2 drilling results and could be conducted concurrently.

In addition to the drilling programs discussed above, it is also recommended that efforts be made to re-locate and re-establish some of the old federal claim corners and claim boundaries.

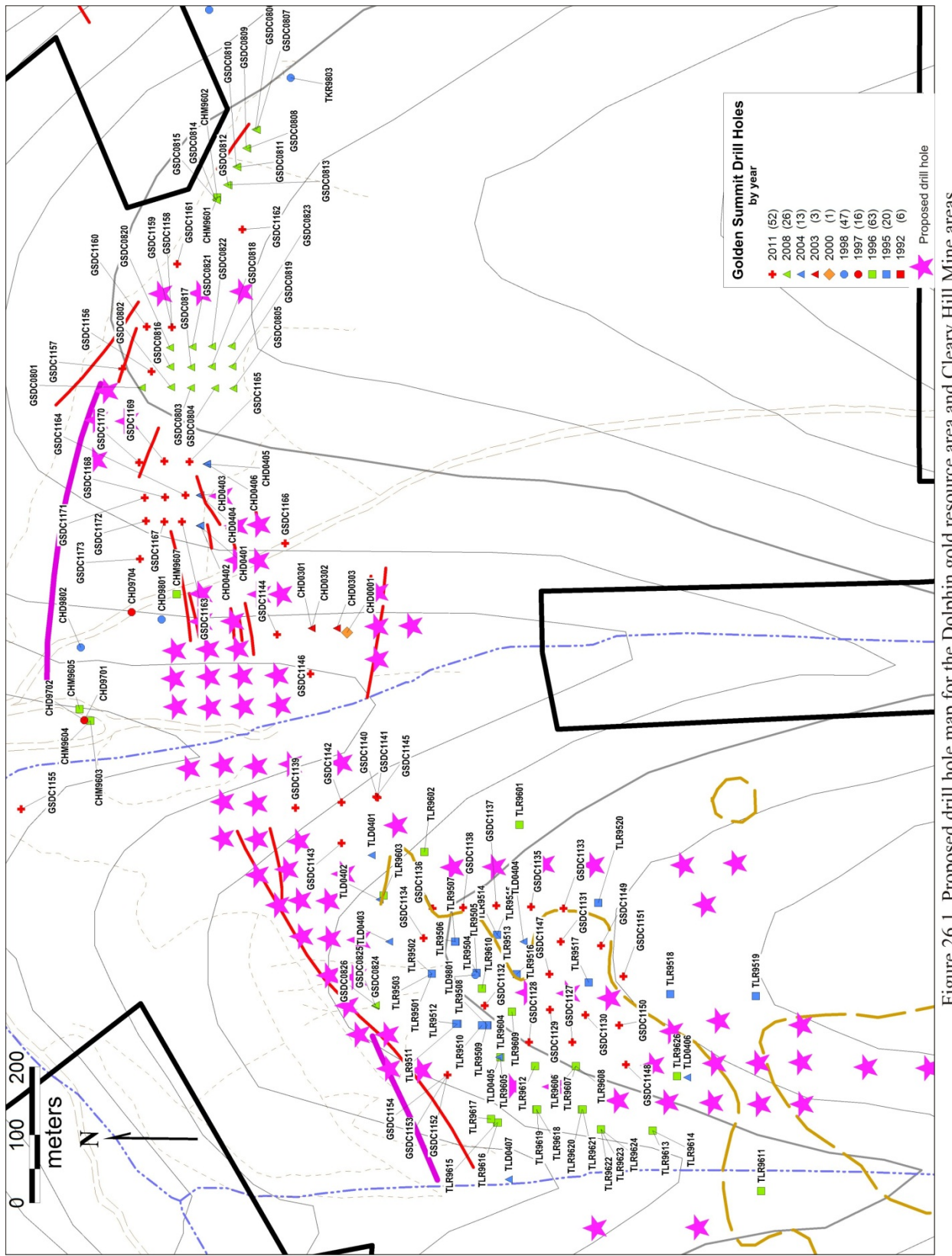


Figure 26.1. Proposed drill hole map for the Dolphin gold resource area and Cleary Hill Mine areas.

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## DATE AND SIGNATURE PAGE

The effective date of this Technical report, entitled *“Update report on the geology and mineralization and mineral resource estimate for the Golden Summit Property, Fairbanks Mining District, Alaska”*, is January 26<sup>th</sup>, 2012.

*David D. Adams*

David D. Adams, B.S., M.S., A.I.P.G. #7586, AA #221



## CERTIFICATE OF AUTHOR

David D. Adams  
Spectrum Resources Inc.  
P.O. Box 81598, Fairbanks, Alaska 99708  
Phone: 907-479-5066, Email: david.adams@acsalaska.net

I, DAVID D. ADAMS, Certified Professional Geologist #7586 HEREBY CERTIFY THAT:

1. I am currently employed as a Consulting Geologist as President of Spectrum Resources Inc, P.O. Box 81598, Fairbanks, Alaska, 99708, USA.
2. This certificate applies to the technical report entitled, *"Update Geology and mineralization and mineral resource estimate for the Golden Summit Project, Fairbanks Mining District, Alaska"* and dated January 26<sup>th</sup>, 2012 (the "Report").
3. I am a graduate of the University of Texas – El Paso, with a B.S. degree in Geology (1977). I am also a graduate of the University of Alaska - Fairbanks with an M.S. degree in Economic Geology (1983).
4. I am a member of the American Institute of Professional Geologists (#7586), the Society of Economic Geologists, the Association for Mineral Exploration B.C., the Alaska Miners Association, and the Geological Society of America.
5. During 1977-78, and since 1986 to the date of this certificate, I have been actively employed in various capacities in the mining industry in numerous locations in Alaska and elsewhere in the United States. I have considerable experience related to exploration and evaluation of precious and base metal mineral properties, including preparation of technical geologic and preliminary assessment reports.
6. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI43-101) and certify that by reason of my education, affiliation with a professional organization (as defined by NI43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI43-101.
7. I am responsible for the geologic information contained within all sections of the report entitled *"Update report on the geology and mineralization and mineral resource estimate for the Golden Summit property, Fairbanks Mining District, Alaska"* and dated January 26<sup>th</sup>, 2012, relating to the Golden Summit property; I am not responsible for the gold resource estimate.
8. I have spent considerable time working on the Golden Summit property conducting several field projects in past years, including 1988, 1995-1997 and 2006. These projects included reconnaissance mapping and sampling, trenching and drilling projects. I also completed a property evaluation report in 1997, and presented an update on the geology of the property at an Alaska Miners Conference in 2000. I did not conduct field work on the property from 2007-2008, but kept informed of current operations during this time period. I actively participated in the drilling project completed on the Golden Summit property during 2011.



9. As of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

10. I am independent of the issuers, Freegold Recovery Inc., USA and Freegold Ventures Limited, applying all of the tests in section 1.5 of NI43-101F1.

11. I have read NI43-101 and Form 43-101F1 and the Report has been prepared in compliance with that instrument and form.

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

DATED in Fairbanks, Alaska this 26<sup>th</sup> day of January, 2012.

*David D. Adams*

David D. Adams, B.S., M.S., A.I.P.G. #7586, AA #221



## CERTIFICATE OF QUALIFIED PERSON

**Gary 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 #1215 - 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 am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 35 years' experience calculating mineral resources. I have previously completed resource estimations on a wide variety of intrusive hosted gold deposits, including Brewery Creek, Kisladag and Red Mountain.
- 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 Instrument 43-101.
- 6) This report titled *"Update report on the geology and mineralization and mineral resource estimate for the Golden Summit property, Fairbanks Mining District, Alaska"* dated January 26<sup>th</sup>, 2012, is based on a study of the data and literature available on the Golden Summit Property. I am responsible for the Mineral Resource Estimate Section 14. I have not visited the property.
- 7) I have previously completed a resource estimate for this property, March 2011.
- 8) As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not 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.

Dated this 26<sup>th</sup> day of January, 2012

"Signed" G. H. Giroux

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

APPENDIX 1  
Mining Claim List  
Golden Summit Project, Alaska

No.	Claim Name	Section	Township	Range	ADL #	Recording Dist	Owner
1	Greenback 1	35	3N	1E	359771	Fairbanks	Earl Beistline
2	Greenback 2	35	3N	1E	359772	Fairbanks	Earl Beistline
3	Greenback 3	26	3N	1E	361184	Fairbanks	Earl Beistline
4	Greenback 4	25	3N	1E	505192	Fairbanks	Earl Beistline
5	Newsboy	26	3N	1E	333135	Fairbanks	Earl Beistline
6	Newsboy Extension	25	3N	1E	333136	Fairbanks	Earl Beistline
7	What's Next #1	24	3N	2E	501821	Fairbanks	Freegold - Fairbanks
8	What's Next #2	24	3N	2E	501822	Fairbanks	Freegold - Fairbanks
9	What's Next #3	24	3N	2E	501823	Fairbanks	Freegold - Fairbanks
10	What's Next #4	24	3N	2E	501824	Fairbanks	Freegold - Fairbanks
11	What's Next #5	22	3N	2E	502196	Fairbanks	Freegold - Fairbanks
12	What's Next #6	22	3N	2E	502197	Fairbanks	Freegold - Fairbanks
13	What's Next #7	22	3N	2E	502198	Fairbanks	Freegold - Fairbanks
14	What's Next #8	22	3N	2E	502199	Fairbanks	Freegold - Fairbanks
15	Crane #1	24	3N	2E	502551	Fairbanks	Freegold - Fairbanks
16	Crane #2	24	3N	2E	502552	Fairbanks	Freegold - Fairbanks
17	Crane #3	24	3N	2E	502553	Fairbanks	Freegold - Fairbanks
18	Crane #4	24	3N	2E	501930	Fairbanks	Freegold - Fairbanks
19	Anticline #1	24	3N	2E	501825	Fairbanks	Freegold - Fairbanks
20	Anticline #2	24	3N	2E	501836	Fairbanks	Freegold - Fairbanks
21	Ruby 3A Fraction	25	3N	1E	515911	Fairbanks	Freegold - Fairbanks
22	Ruby 4A Fraction	25	3N	1E	515912	Fairbanks	Freegold - Fairbanks
23	Ruby 5 Fraction	25	3N	1E	515913	Fairbanks	Freegold - Fairbanks
24	Ruby 6 Fraction	25	3N	1E	515914	Fairbanks	Freegold - Fairbanks
25	Ruby 7 Fraction	25	3N	1E	515915	Fairbanks	Freegold - Fairbanks
26	Ruby 8 Fraction	30	3N	2E	515916	Fairbanks	Freegold - Fairbanks
27	Ruby 9 Fraction	30	3N	2E	515917	Fairbanks	Freegold - Fairbanks
28	Ruby 10 Fraction	30	3N	2E	515918	Fairbanks	Freegold - Fairbanks
29	Ruby 11 Fraction	30	3N	2E	515919	Fairbanks	Freegold - Fairbanks
30	Ruby 12 Fraction	29	3N	2E	515920	Fairbanks	Freegold - Fairbanks
31	Ruby 13 Fraction	29	3N	2E	515921	Fairbanks	Freegold - Fairbanks
32	Ruby 14 Fraction	29	3N	2E	515922	Fairbanks	Freegold - Fairbanks
33	Ruby 15 Fraction	29	3N	2E	515923	Fairbanks	Freegold - Fairbanks
34	Ruby 16 Fraction	28	3N	2E	515924	Fairbanks	Freegold - Fairbanks
35	Ruby 17 Fraction	28	3N	2E	515925	Fairbanks	Freegold - Fairbanks
36	Ruby 18 Fraction	28	3N	2E	515926	Fairbanks	Freegold - Fairbanks
37	Ruby 19 Fraction	28	3N	2E	515927	Fairbanks	Freegold - Fairbanks
38	FRG # 1	31	3N	2E	558129	Fairbanks	Freegold Recovery
39	FRG # 2	31	3N	2E	558130	Fairbanks	Freegold Recovery
40	FRG # 3	31	3N	2E	558131	Fairbanks	Freegold Recovery
41	FRG # 4	31	3N	2E	558132	Fairbanks	Freegold Recovery
42	FRG # 5	32	3N	2E	575592	Fairbanks	Freegold Recovery
43	FRG # 6	32	3N	2E	575593	Fairbanks	Freegold Recovery

44	Erik 1	18	3N	2E	574226	Fairbanks	Freegold Recovery
45	Erik 2	18	3N	2E	574227	Fairbanks	Freegold Recovery
46	Erik 3	18	3N	2E	574228	Fairbanks	Freegold Recovery
47	Kelly 1	27	3N	2E	574122	Fairbanks	Freegold Recovery
48	Kelly 2	27	3N	2E	574123	Fairbanks	Freegold Recovery
49	Kelly 3	27	3N	2E	574124	Fairbanks	Freegold Recovery
50	Kelly 4	27	3N	2E	574125	Fairbanks	Freegold Recovery
51	Kelly 5	27	3N	2E	574126	Fairbanks	Freegold Recovery
52	Kelly 6	27	3N	2E	574127	Fairbanks	Freegold Recovery
53	Starbuck 1	16	3N	3E	574128	Fairbanks	Freegold Recovery
54	Starbuck 2	16	3N	3E	574129	Fairbanks	Freegold Recovery
55	Starbuck 3	16	3N	3E	574130	Fairbanks	Freegold Recovery
56	Starbuck 4	16	3N	3E	574131	Fairbanks	Freegold Recovery
57	Butterfly 1	33	3N	3E	575583	Fairbanks	Freegold Recovery
58	Butterfly 2	33	3N	3E	575584	Fairbanks	Freegold Recovery
59	Butterfly 3	33, 34	3N	3E	575585	Fairbanks	Freegold Recovery
60	Butterfly 4	3, 4	2N	3E	575586	Fairbanks	Freegold Recovery
61	Butterfly 5	3	2N	3E	575587	Fairbanks	Freegold Recovery
62	Butterfly 6	34	3N	3E	575588	Fairbanks	Freegold Recovery
63	Butterfly 7	34	3N	3E	575589	Fairbanks	Freegold Recovery
64	Butterfly 8	33	3N	3E	575590	Fairbanks	Freegold Recovery
65	Eldorado #1	27	3N	1E	575591	Fairbanks	Freegold Recovery
66	Blueberry	21	3N	2E	308497	Fairbanks	Keystone Mines
67	Robin 1	28	3N	2E	308498	Fairbanks	Keystone Mines
68	Robin 2	29	3N	2E	308499	Fairbanks	Keystone Mines
69	Robin 3	29	3N	2E	308500	Fairbanks	Keystone Mines
70	Robin 4	29	3N	2E	308501	Fairbanks	Keystone Mines
71	Robin 5	29	3N	2E	308502	Fairbanks	Keystone Mines
72	Robin 6	30	3N	2E	308503	Fairbanks	Keystone Mines
73	Ing Fraction	22	3N	2E	315014	Fairbanks	Keystone Mines
74	Gene Fraction	22	3N	2E	315015	Fairbanks	Keystone Mines
75	Beta Fraction	22	3N	2E	315016	Fairbanks	Keystone Mines
76	Alpha Fraction	21,22	3N	2E	315017	Fairbanks	Keystone Mines
77	Arnold Fraction	22	3N	2E	315018	Fairbanks	Keystone Mines
78	Alabama	30	3N	2E	F45603	Fairbanks	Keystone Mines
79	Disc. on Bedrock Cr.	24,25	3N	1E	F45604	Fairbanks	Keystone Mines
80	July #1	30	3N	2E	F45605	Fairbanks	Keystone Mines
81	July #2	30	3N	2E	F45606	Fairbanks	Keystone Mines
82	July #3	30	3N	2E	F45607	Fairbanks	Keystone Mines
83	July Frac. #4	30	3N	2E	F45608	Fairbanks	Keystone Mines
84	Liberty Lode #1	30	3N	2E	F45609	Fairbanks	Keystone Mines
85	Liberty Lode #2	30	3N	2E	F45610	Fairbanks	Keystone Mines
86	Liberty Lode #3	30	3N	2E	F45611	Fairbanks	Keystone Mines
87	Millsite Fraction	30	3N	2E	F45612	Fairbanks	Keystone Mines
88	New York Mineral	24,25	3N	1E	F45613	Fairbanks	Keystone Mines
89	No Name	30	3N	2E	F45614	Fairbanks	Keystone Mines
90	#1 Ab. Disc. on Bedrock	30	3N	2E	F45615	Fairbanks	Keystone Mines
91	Snow Drift	19	3N	2E	F45616	Fairbanks	Keystone Mines
92	Texas	19	3N	2E	F45617	Fairbanks	Keystone Mines
93	Wyoming Quartz	30	3N	2E	F45618	Fairbanks	Keystone Mines

94	Wyoming Frac.	25	3N	1E	F45619	Fairbanks	Keystone Mines
95	Button Weezer	27,28	3N	2E	F45620	Fairbanks	Keystone Mines
96	Caribou Frac.	21,28	3N	2E	F45621	Fairbanks	Keystone Mines
97	Caribou #1	21,22	3N	2E	F45622	Fairbanks	Keystone Mines
98	Caribou #2	21,22	3N	2E	F45623	Fairbanks	Keystone Mines
99	Fern	28	3N	2E	F45624	Fairbanks	Keystone Mines
100	Free Gold	21	3N	2E	F45625	Fairbanks	Keystone Mines
101	Henry Ford #1	28	3N	2E	F45626	Fairbanks	Keystone Mines
102	Henry Ford #2	21	3N	2E	F45627	Fairbanks	Keystone Mines
103	Henry Ford #3	28	3N	2E	F45628	Fairbanks	Keystone Mines
104	Henry Ford #4	28	3N	2E	F45629	Fairbanks	Keystone Mines
105	Laughing Water	21	3N	2E	F45630	Fairbanks	Keystone Mines
106	Little Jim	28	3N	2E	F45631	Fairbanks	Keystone Mines
107	Minnie Ha Ha	21	3N	2E	F45632	Fairbanks	Keystone Mines
108	Pennsylvania	21	3N	2E	F45633	Fairbanks	Keystone Mines
109	Ruth Frac.	21	3N	2E	F45634	Fairbanks	Keystone Mines
110	Speculator	28	3N	2E	F45635	Fairbanks	Keystone Mines
111	Wolf Lode	20,21	3N	2E	F45636	Fairbanks	Keystone Mines
112	Bonus	22	3N	2E	F45637	Fairbanks	Keystone Mines
113	Don	15,22	3N	2E	F45638	Fairbanks	Keystone Mines
114	Durando	22	3N	2E	F45639	Fairbanks	Keystone Mines
115	Edythe	15,22	3N	2E	F45640	Fairbanks	Keystone Mines
116	Flying Joe	22	3N	2E	F45641	Fairbanks	Keystone Mines
117	Gold Point	22	3N	2E	F45642	Fairbanks	Keystone Mines
118	Helen S.	23	3N	2E	F45643	Fairbanks	Keystone Mines
119	Hi Yu	23	3N	2E	F45644	Fairbanks	Keystone Mines
120	Hi Yu Millsite	23	3N	2E	F45645	Fairbanks	Keystone Mines
121	Homestake	23	3N	2E	F45646	Fairbanks	Keystone Mines
122	Inez	22	3N	2E	F45647	Fairbanks	Keystone Mines
123	Insurgent #1	23	3N	2E	F45648	Fairbanks	Keystone Mines
124	Insurgent #2	23	3N	2E	F45649	Fairbanks	Keystone Mines
125	Julia	15,22	3N	2E	F45650	Fairbanks	Keystone Mines
126	Jumbo	22	3N	2E	F45651	Fairbanks	Keystone Mines
127	Laura	22	3N	2E	F45652	Fairbanks	Keystone Mines
128	Lillian	23	3N	2E	F45653	Fairbanks	Keystone Mines
129	Long Shin	23	3N	2E	F45654	Fairbanks	Keystone Mines
130	Mame	14,15	3N	2E	F45655	Fairbanks	Keystone Mines
131	Mayflower	22,27	3N	2E	F45656	Fairbanks	Keystone Mines
132	Mohawk	22	3N	2E	F45657	Fairbanks	Keystone Mines
133	#1 Moose Gulch	23	3N	2E	F45658	Fairbanks	Keystone Mines
134	#2 Moose Gulch	23	3N	2E	F45659	Fairbanks	Keystone Mines
135	N.R.A.	15	3N	2E	F45660	Fairbanks	Keystone Mines
136	Nars	22,23	3N	2E	F45661	Fairbanks	Keystone Mines
137	O'Farrel Frac.	23	3N	2E	F45662	Fairbanks	Keystone Mines
138	Ohio	22	3N	2E	F45663	Fairbanks	Keystone Mines
139	Rand	23	3N	2E	F45664	Fairbanks	Keystone Mines
140	Red Top	22	3N	2E	F45665	Fairbanks	Keystone Mines
141	Rob	23	3N	2E	F45666	Fairbanks	Keystone Mines
142	Royalty	15	3N	2E	F45667	Fairbanks	Keystone Mines
143	Santa Clara Frac.	23	3N	2E	F45668	Fairbanks	Keystone Mines



144	Summit	22,23	3N	2E	F45669	Fairbanks	Keystone Mines
145	Sunnyside	22	3N	2E	F45670	Fairbanks	Keystone Mines
146	Teddy R.	23	3N	2E	F45671	Fairbanks	Keystone Mines
147	Yankee Doodle	23	3N	2E	F45672	Fairbanks	Keystone Mines
148	Insurgent #3	14,23	3N	2E	F45673	Fairbanks	Keystone Mines
149	Roy	23	3N	2E	F45674	Fairbanks	Keystone Mines
150	Freegold	19	3N	2E	MS821	Fairbanks	Keystone Mines
151	Colorado	19,30	3N	2E	MS1639	Fairbanks	Keystone Mines
152	California	19,30	3N	2E	MS1639	Fairbanks	Keystone Mines
153	Pauper's Dream	30	3N	2E	MS1639	Fairbanks	Keystone Mines
154	Idaho	30	3N	2E	MS1639	Fairbanks	Keystone Mines
155	Keystone	20,21	3N	2E	MS1607	Fairbanks	Keystone Mines
156	Kawalita	20,21	3N	2E	MS1607	Fairbanks	Keystone Mines
157	Fairbanks	21	3N	2E	MS1607	Fairbanks	Keystone Mines
158	Hope	21	3N	2E	MS1607	Fairbanks	Keystone Mines
159	Willie	21	3N	2E	MS2198	Fairbanks	Keystone Mines
160	Marigold	21,28	3N	2E	MS2198	Fairbanks	Keystone Mines
161	Pioneer	21	3N	2E	MS2198	Fairbanks	Keystone Mines
162	Henry Ford	21,28	3N	2E	MS2198	Fairbanks	Keystone Mines
163	Henry Clay	21	3N	2E	MS2198	Fairbanks	Keystone Mines
164	Willow Creek #1	25,26	T3N	R1E	24963	Fairbanks	Hart, Haskins
165	Willow Creek #2	25	T3N	R1E	24964	Fairbanks	Hart, Haskins
166	Willow Creek #3	25	T3N	R1E	24965	Fairbanks	Hart, Haskins
167	Willow Ck. #1 Placer	25	T3N	R1E	24966	Fairbanks	Hart, Haskins
168	VDH-AMS #1	25	T3N	R1E	344681	Fairbanks	Hart, Haskins, St. AK
169	VDH-AMS #2	25	T3N	R1E	344682	Fairbanks	Hart, Haskins, St. AK
170	VDH-AMS #3	25	T3N	R1E	344683	Fairbanks	Hart, Haskins, St. AK
171	Chatham No. 2 Lode	20, 29	T3N	R2E	MS1713	Fairbanks	Burggraf
172	Fey Lode	20, 29	T3N	R2E	MS1713	Fairbanks	Burggraf
173	Colby No. 2 Lode	29	T3N	R2E	MS1713	Fairbanks	Burggraf
174	Fay Claim No. 2 Lode	20, 28, 29	T3N	R2E	MS1713	Fairbanks	Burggraf
175	Colby Lode	28, 29	T3N	R2E	MS1713	Fairbanks	Burggraf
176	I.B. Claim	28	T3N	R2E	MS1676	Fairbanks	Burggraf
177	Margery Daw Claim	28, 29	T3N	R2E	MS1676	Fairbanks	Burggraf
178	Lauren No. 9	18	T3N	R2E	ADL604794	Fairbanks	Freegold
179	3 Above 2, T LL	18,19	T3N	R2E	MS199	Fairbanks	Freegold
180	4Above 2, T LL	19	T3N	R2E	MS173	Fairbanks	Freegold
181	5 Above 2, T LL	19	T3N	R2E	MS836	Fairbanks	Freegold
182	Bench No. 5 Above Disc LL	19	T3N	R2E	MS367	Fairbanks	Freegold
183	No. 6 Above Disc	19	T3N	R2E	MS1972	Fairbanks	Freegold
184	No. 7 Above Disc, LL	19, 24	T3N	R1E, 2E	MS1968	Fairbanks	Freegold
185	Side Claim No. 8 Above LL	24	T3N	R1E	MS1968	Fairbanks	Freegold
186	Side Claim No. 8 Above LL	24	T3N	R1E	MS824	Fairbanks	Freegold
187	Side Claim No. 8 Above LL	24	T3N	R1E	MS807	Fairbanks	Freegold
188	Bench No. 9 Above LL	24	T3N	R1E	MS1671	Fairbanks	Freegold
189	No. 9 Number 9 Above Disc	24	T3N	R1E	MS1687	Fairbanks	Freegold
190	No. 8 Above Disc	25, 30	T3N	R1E, 2E	MS1670	Fairbanks	Freegold
191	No. 7 Above Disc	19, 24	T3N	R2E	MS1670	Fairbanks	Freegold
192	No. 6 Above Disc	19	T3N	R2E	MS1670	Fairbanks	Freegold

193	No. 5 Above Disc	19	T3N	R2E	MS385	Fairbanks	Freegold
194	No. 4 Above Disc	19	T3N	R2E	MS365	Fairbanks	Freegold
195	Lower Half No. 4 Above Disc	19	T3N	R2E	MS1793	Fairbanks	Freegold
196	No. 3 Above Disc	18, 19	T3N	R2E	MS1793	Fairbanks	Freegold
197	No. 2 Above Disc	18	T3N	R2E	MS805	Fairbanks	Freegold
198	No. 1 Above Disc	18	T3N	R2E	MS805	Fairbanks	Freegold
199	Disc Claim on Wolf Ck Placer	18	T3N	R2E	MS1901	Fairbanks	Freegold
200	Bench Claim RL opposite Disc Claim on Wolf Creek Placer	18	T3N	R2E	MS1920	Fairbanks	Freegold
201	Discovery Placer on Cleary Creek	18	T3N	R2E	MS805	Fairbanks	Freegold
202	Discovery Bench LL	18	T3N	R2E	MS1926	Fairbanks	Freegold
203	No. 1 Above Disc LL	18	T3N	R2E	MS1605	Fairbanks	Freegold
204	No. 2 Side Claim LL	18	T3N	R2E	MS1798	Fairbanks	Freegold

### ADDITIONAL STATE MINING CLAIMS

CLAIM NAME	SEC	T. R.	ADL #
RAM 1	17	T3N, R2E,	303366
RAM 2	17	T3N, R2E,	303367
RAM 3	17	T3N, R2E,	303368
RAM 4	17	T3N, R2E,	303369
RAM 5	16	T3N, R2E,	303370
RAM 6	16	T3N, R2E,	303371
RAM 7	16	T3N, R2E,	303372
RAM 8	16	T3N, R2E,	303373
RAM 9	15	T3N, R2E,	303374
RAM 10	15	T3N, R2E,	303375
RAM 11	15	T3N, R2E,	303376
RAM 12	15	T3N, R2E,	303377
RAM 13	17	T3N, R2E,	303378
RAM 14	17	T3N, R2E,	303379
RAM 15	17	T3N, R2E,	303380
RAM 16	17	T3N, R2E,	303381
RAM 17	16	T3N, R2E,	303382
RAM 18	16	T3N, R2E,	303383
RAM 19	16	T3N, R2E,	303384
RAM 20	16	T3N, R2E,	303385
RAM 21	15	T3N, R2E,	303386
RAM 22	15	T3N, R2E,	303387
RAM 23	15	T3N, R2E,	303388
RAM 24	15	T3N, R2E,	303389
RAM 25	17	T3N, R2E,	303390
RAM 57	14	T3N, R2E,	303422
RAM 59	14	T3N, R2E,	303423
RAM 60	14	T3N, R2E,	303424
RAM 62	14	T3N, R2E,	303426
RAM 63	14	T3N, R2E,	303427
RAM 64	14	T3N, R2E,	303428
RAM 65	14	T3N, R2E,	303429
RAM 66	20	T3N, R2E,	306460
RAM 67	20	T3N, R2E,	306461

RAM 68	20	T3N, R2E,	306462
RAM 69	20	T3N, R2E,	306463
RAM 70	21	T3N, R2E,	306464
RAM 71	21	T3N, R2E,	306465
RAM 72	20	T3N, R2E,	306466
RAM 73	20	T3N, R2E,	306467
RAM 74	20	T3N, R2E,	306468
RAM 75	20	T3N, R2E,	306469
RAM 76	21	T3N, R2E,	306470
RAM 2A	20	T3N, R2E,	302892
RAM 3A	20	T3N, R2E,	302893
RAM 58	19	T3N, R2E,	302894
RAM 58A	19	T3N, R2E,	302895
RAM 58B	19	T3N, R2E,	302896
RAM 58C	19	T3N, R2E,	302897
RAM 58D	19	T3N, R2E,	302898
RAM 58E	19	T3N, R2E,	302899
RAM 58F	20	T3N, R2E,	302900
RAM 58G	20	T3N, R2E,	302901
RAM 58H	20	T3N, R2E,	302902
RAM 58I	18	T3N, R2E,	302903
RAM 58J	20	T3N, R2E,	302904
RAM 58K	20	T3N, R2E,	302905
RAM 58L	20	T3N, R2E,	302906
VD 1	20	T3N, R2E,	302907
VD 2	20	T3N, R2E,	302908
GOOSE 1	20	T3N, R2E,	342763
GOOSE 2	20	T3N, R2E,	342764
GOOSE 3	20	T3N, R2E,	342765
GOOSE 4	20	T3N, R2E,	342766
GOOSE 5	21	T3N, R2E,	342767
GOOSE 6	21	T3N, R2E,	342768
MOOSE FRACTION 1	23	T3N, R2E,	344966
MOOSE FRACTION 2	23	T3N, R2E,	344967
MOOSE FRACTION 3	23	T3N, R2E,	344968
MOOSE FRACTION 4	23	T3N, R2E,	344969
OAKIE FRACTION 1	30	T3N, R2E,	342791
OAKIE FRACTION 2	30	T3N, R2E,	342792
OAKIE FRACTION 3	30	T3N, R2E,	342793
OAKIE FRACTION 4	25	T3N, R1E,	342794
OAKIE FRACTION 5	19	T3N, R2E,	348966
OAKIE FRACTION 6	19	T3N, R2E,	348967
OAKIE FRACTION 7	19	T3N, R2E,	348968
OAKIE FRACTION 8	19	T3N, R2E,	348969
OAKIE FRACTION 9	19	T3N, R2E,	348970
OLD GOLD 1	21	T3N, R2E,	322801
OLD GOLD FRACTION 2	21	T3N, R2E,	322802
OLD GOLD FRACTION 3	21	T3N, R2E,	322803
OLD GOLD 4	21	T3N, R2E,	322804
OLD GOLD FRACTION 5	21	T3N, R2E,	322805
OLD GOLD FRACTION 6	21	T3N, R2E,	322806
OLD GOLD FRACTION 7	21	T3N, R2E,	322807
OLD GOLD FRACTION 8	21	T3N, R2E,	322808

OLD GOLD FRACTION 9	23	T3N, R2E,	322809
OLD GOLD FRACTION 11A	22	T3N, R2E,	336671
OLD GOLD FRACTION 13	22	T3N, R2E,	336672
OLD GOLD FRACTION 14	22	T3N, R2E,	336673
OLD GOLD FRACTION 15	23	T3N, R2E,	336674
OLD GOLD FRACTION 16	22	T3N, R2E,	336675
OLD GOLD FRACTION 17	22	T3N, R2E,	336676
OLD GOLD FRACTION 18	22	T3N, R2E,	336677
OLD GOLD 19	23	T3N, R2E,	336666
OLD GOLD FRACTION 20	23	T3N, R2E,	336678
OLD GOLD FRACTION 21	23	T3N, R2E,	336679
OLD GOLD FRACTION 22	23	T3N, R2E,	336680
OLD GOLD FRACTION 23	22	T3N, R2E,	336681
OLD GOLD FRACTION 24	22	T3N, R2E,	336682
OLD GOLD FRACTION 25	22	T3N, R2E,	336683
OLD GOLD FRACTION 26	23	T3N, R2E,	336667
OLD GOLD FRACTION 34	22	T3N, R2E,	336684
OLD GOLD FRACTION 35	22	T3N, R2E,	336685
OLD GOLD FRACTION 36	28	T3N, R2E,	336686
OLD GOLD FRACTION 37	27	T3N, R2E,	336687
OLD GOLD FRACTION 38	27	T3N, R2E,	336688
OLD GOLD FRACTION 39	27	T3N, R2E,	336689
OLD GOLD FRACTION 40	27	T3N, R2E,	336690
OLD GOLD FRACTION 41	27	T3N, R2E,	336691
OLD GOLD FRACTION 42	28	T3N, R2E,	336692
OLD GOLD FRACTION 43	27	T3N, R2E,	336668
OLD GOLD FRACTION 44	27	T3N, R2E,	336669
OLD GOLD FRACTION 45	27	T3N, R2E,	336670
RUBY 1	25	T3N, R1E,	354215
RUBY 2 FRACTION	25	T3N, R1E,	354216
RUBY 3 FRACTION	25	T3N, R1E,	354217
RUBY 4 FRACTION	25	T3N, R1E,	354218
WW FRACTION 1	20	T3N, R2E,	342778
WW FRACTION 2	20	T3N, R2E,	342779
WW FRACTION 3	20	T3N, R2E,	342780
WW FRACTION 4	20	T3N, R2E,	342781
WW FRACTION 5	20	T3N, R2E,	342782
WW FRACTION 6	20	T3N, R2E,	342783
WW 7	29	T3N, R2E,	342784
WW FRACTION 8	29	T3N, R2E,	342785
WW FRACTION 9	29	T3N, R2E,	342786
WW FRACTION 10	29	T3N, R2E,	342787
WW FRACTION 11	19	T3N, R2E,	342788
WW FRACTION 12	30	T3N, R2E,	342789
WW FRACTION 13	30	T3N, R2E,	342790
WW FRACTION 14	30	T3N, R2E,	506514

BLM SERIAL #	CLAIM NAME	LOCATION F.M.
1.	FF058503	Christina
2.	FF058504	Fraction #1
3.	FF058505	Fraction #2
4.	FF058506	Fraction #3
5.	FF058507	Carrie A
6.	FF058508	Carrie A #1
7.	FF058509	Carrie A #2
8.	FF058510	Grace E
9.	FF058511	Grace E #1
10.	FF058512	Grace E #2
11.	FF058513	Grace Eva #1
12.	FF058514	Grace Eva #2
13.	FF058515	Grace Eva #3
14.	FF058516	Wolf Lode #1
15.	FF058517	Wolf Lode #2
16.	FF058518	Fairbanks #1
17.	FF058519	Fairbanks #2
18.	FF058520	Fairbanks #3

**APPENDIX 2 – DRILL HOLE COLLARS**  
**THOSE USED IN RESOURCE STUDY HIGHLIGHTED**

<b>HOLE</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>ELEVATION</b>	<b>HOLE LENGTH (m)</b>
CFR9801	494295.00	7218914.00	660.00	92.96
CFR9802	494148.00	7219061.00	661.00	92.96
CFR9803	494057.00	7219180.00	668.00	92.96
CFR9804	493951.00	7218434.00	625.00	92.96
CFR9805	493958.00	7218628.00	665.00	92.96
CFR9806	493931.00	7218818.00	690.00	92.96
CHD0001	479555.00	7215398.00	388.60	304.80
CHD0301	479561.00	7215450.00	388.60	137.01
CHD0302	479561.00	7215450.00	388.60	137.46
CHD0303	479561.00	7215413.00	388.60	137.16
CHD0401	479712.00	7215615.00	428.55	213.36
CHD0402	479712.00	7215614.00	428.55	240.64
CHD0403	479757.00	7215615.00	438.61	219.46
CHD0404	479757.00	7215614.00	438.61	247.50
CHD0405	479803.00	7215605.00	448.37	299.32
CHD0406	479803.00	7215604.00	448.37	291.70
CHD9701	479426.00	7215785.00	362.10	70.41
CHD9702	479426.00	7215785.00	362.10	140.82
CHD9703	479585.00	7215715.00	395.80	134.11
CHD9704	479585.00	7215715.00	395.80	233.17
CHD9801	479574.00	7215671.00	393.10	247.50
CHD9802	479533.00	7215790.00	373.70	168.55
CHM9601	480195.00	7215589.00	468.00	150.88
CHM9602	480195.00	7215589.00	468.00	150.88
CHM9603	479425.00	7215776.00	360.00	10.67
CHM9604	479425.00	7215776.00	360.00	27.43
CHM9605	479442.00	7215792.00	360.00	39.62
CHM9606	479611.00	7215649.00	403.00	150.88
CHM9607	479611.00	7215649.00	403.00	86.87
CHR9801	480382.00	7215941.00	345.00	141.73
CHR9802	479650.00	7216062.00	374.00	143.26
CHR9803	479725.00	7215959.00	409.00	164.59
CHR9804	479934.00	7216054.00	407.00	173.74
CHR9805	480028.00	7216252.00	357.00	141.73
CHR9806	479952.00	7216416.00	337.00	169.16
CKR9801	477475.00	7214652.00	526.00	92.96
CKR9802	477356.00	7214689.00	497.00	92.96
CKR9803	477284.00	7214769.00	478.00	97.54
CLR9801	492149.00	7218657.00	601.00	150.88
CLR9802	491897.00	7219195.00	501.00	140.21
CLR9803	491283.00	7219090.00	545.00	164.59



CRR9801	491245.00	7217802.00	462.00	150.88
CRR9802	489922.00	7217560.00	416.00	152.40
CRR9803	487562.00	7216966.00	565.00	150.88
CRR9804	487105.00	7217321.00	589.00	146.30
GCD9701	484097.00	7216311.00	650.00	210.31
GCR9701	483721.00	7216917.00	529.00	124.36
GCR9702	483403.00	7216690.00	484.00	155.45
GCR9703	483576.00	7216641.00	520.00	155.45
GCR9704	483735.00	7216698.00	543.00	155.45
GCR9705	483257.00	7216807.00	432.00	148.74
GCR9706	483379.00	7216820.00	434.00	143.87
GCR9707	483126.00	7216864.00	408.00	155.45
GCR9708	482952.00	7216912.00	389.00	153.31
GCR9709	482806.00	7216924.00	380.00	32.61
GCR9710	482590.00	7217044.00	355.00	155.45
GCR9711	483729.00	7217097.00	541.00	155.45
GCR9801	483746.00	7216841.00	531.00	152.40
GCR9802	483715.00	7216992.00	533.00	161.54
GCR9803	484270.00	7216580.00	675.00	115.82
GCR9804	484258.00	7216807.00	665.00	92.96
GCR9805	484237.00	7216713.00	663.00	106.68
GCR9806	483255.00	7216809.00	432.00	137.16
GCR9807	483256.00	7216901.00	419.00	78.33
GCR9808	482807.00	7217018.00	371.00	92.96
GCR9809	482820.00	7216835.00	401.00	155.45
GCR9810	483552.00	7216968.00	482.00	152.40
GSDC0801	479914.96	7215700.19	470.19	152.71
GSDC0802	479915.94	7215657.17	474.30	61.30
GSDC0803	479914.94	7215627.97	474.98	91.70
GSDC0804	479914.23	7215592.42	483.57	122.20
GSDC0805	479914.14	7215565.57	487.53	228.60
GSDC0806	480295.26	7215532.68	473.95	32.60
GSDC0807	480294.45	7215531.01	474.22	60.00
GSDC0808	480266.93	7215545.02	474.49	66.10
GSDC0809	480267.74	7215546.46	474.56	73.20
GSDC0810	480240.27	7215560.80	474.54	73.50
GSDC0811	480239.51	7215559.47	474.57	64.30
GSDC0812	480212.73	7215572.91	474.46	65.50
GSDC0813	480213.64	7215574.57	474.35	72.80
GSDC0814	480191.64	7215591.55	474.14	59.70
GSDC0815	480190.78	7215589.77	474.26	66.90
GSDC0816	479945.77	7215658.52	478.52	99.70
GSDC0817	479945.00	7215627.87	481.39	117.70
GSDC0818	479946.20	7215597.22	486.94	233.60

GSDC0819	479946.24	7215567.02	491.98	232.00
GSDC0820	479974.19	7215658.78	481.41	163.20
GSDC0821	479975.15	7215625.89	485.20	123.10
GSDC0822	479975.78	7215596.91	490.12	204.50
GSDC0823	479976.40	7215567.93	495.05	229.20
GSDC0824	479005.55	7215356.66	445.89	157.60
GSDC0825	479006.07	7215355.99	445.90	105.80
GSDC0826	479006.48	7215355.54	445.94	109.70
GSDC1127	478952.00	7215066.00	469.00	276.15
GSDC1128	478952.00	7215130.00	460.00	197.82
GSDC1129	479000.00	7215099.00	471.00	182.58
GSDC1130	478992.00	7215047.00	481.00	206.96
GSDC1131	479100.00	7215083.00	481.00	194.16
GSDC1132	479006.00	7215195.00	457.00	452.02
GSDC1133	479149.00	7215079.00	483.00	210.01
GSDC1134	479105.00	7215285.00	452.00	54.10
GSDC1135	479151.00	7215127.00	475.00	190.20
GSDC1136	479149.00	7215272.00	449.00	76.96
GSDC1137	479153.00	7215178.00	463.00	196.29
GSDC1138	479150.00	7215227.00	458.00	210.01
GSDC1139	479297.00	7215474.00	389.00	196.60
GSDC1140	479312.00	7215353.00	402.00	57.61
GSDC1141	479312.00	7215353.00	402.00	196.60
GSDC1142	479305.00	7215406.00	394.00	196.60
GSDC1143	479245.00	7215406.00	404.00	200.25
GSDC1144	479552.00	7215501.00	378.00	196.90
GSDC1145	479313.00	7215355.00	402.00	199.80
GSDC1146	479494.00	7215452.00	396.00	198.42
GSDC1147	479052.00	7215100.00	472.00	516.18
GSDC1148	478919.00	7214987.00	483.00	474.88
GSDC1149	479094.00	7215024.00	488.00	403.25
GSDC1150	478977.00	7214997.00	450.00	257.86
GSDC1151	479049.00	7214991.00	489.00	287.73
GSDC1152	478904.00	7215250.00	432.00	101.65
GSDC1153	478904.00	7215250.00	432.00	99.36
GSDC1154	478904.00	7215250.00	432.00	133.50
GSDC1155	479295.00	7215878.00	334.00	164.29
GSDC1156	479939.00	7215686.00	465.00	199.34
GSDC1157	479943.00	7215729.00	462.00	201.17
GSDC1158-	480033.00	7215661.00	470.00	1.00
GSDC1159-	479684.00	7215500.00	432.00	1.00
GSR9201	484682.00	7216320.00	634.00	88.39
GSR9202	484681.00	7216315.00	634.00	115.82
GSR9203	484803.00	7216320.00	619.00	59.44

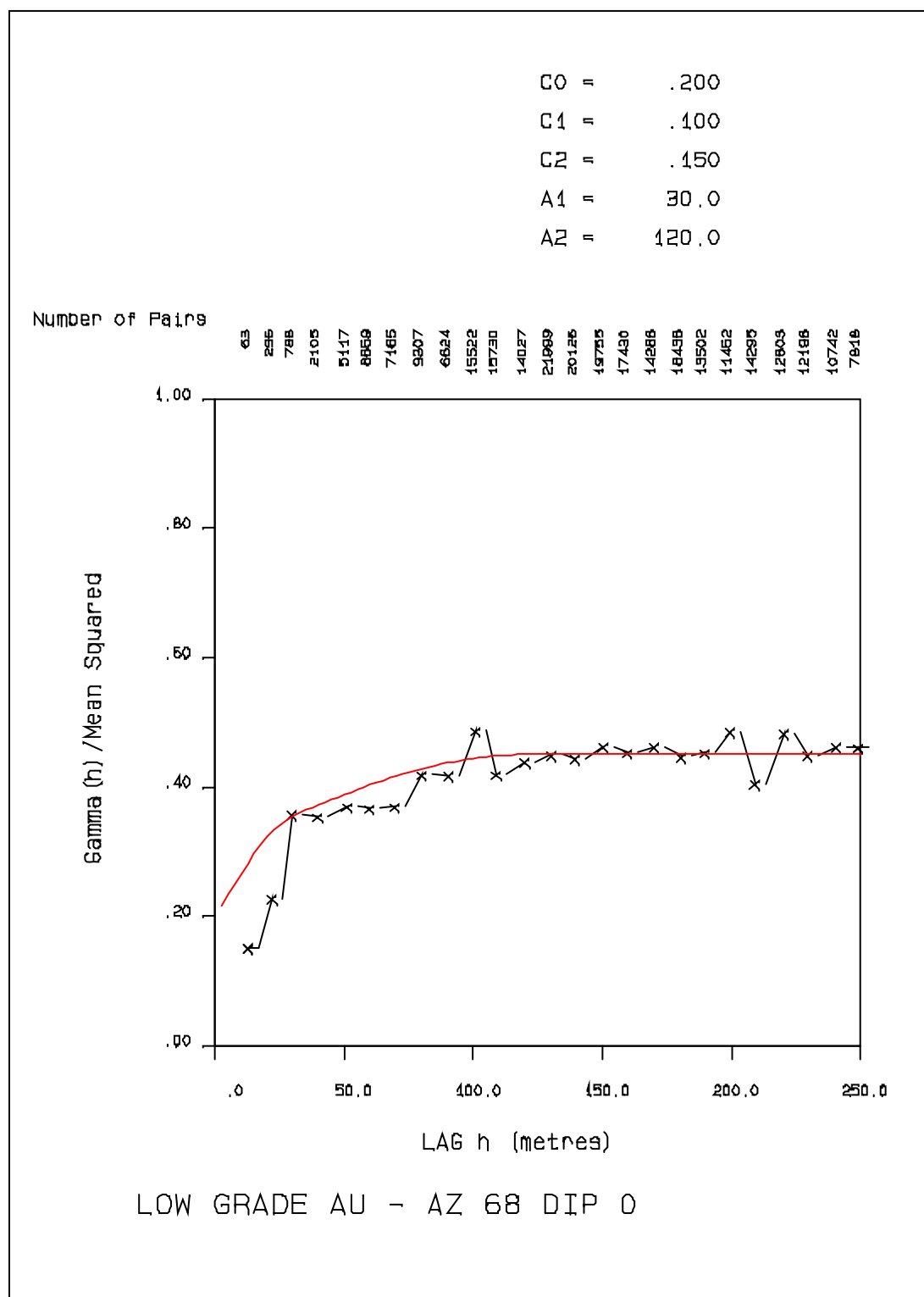
GSR9204	485139.00	7216320.00	584.00	89.92
GSR9205	485199.00	7216351.00	573.00	92.96
GSR9206	485162.00	7216533.00	558.00	71.63
IAR9801	486187.00	7216219.00	509.00	201.17
IAR9802	485674.00	7217070.00	614.00	150.88
IAR9803	486242.00	7216999.00	619.00	150.88
IAR9804	486413.00	7216431.00	539.00	92.96
IAR9805	486540.00	7216328.00	506.00	102.11
NBR9601	478140.00	7213847.00	711.00	155.45
NBR9602	478140.00	7213847.00	711.00	123.44
NBR9603	477701.00	7213727.00	659.00	155.45
NBR9604	478179.00	7213995.00	680.00	123.44
NBR9605	478179.00	7213995.00	680.00	100.58
NBR9606	478179.00	7213995.00	680.00	118.87
NBR9607	478170.00	7214091.00	659.00	132.59
NBR9608	478170.00	7214091.00	659.00	89.92
NBR9609	478139.00	7214213.00	643.00	155.45
NBR9610	478139.00	7214213.00	643.00	100.58
NBR9611	478192.00	7214336.00	622.00	155.45
NBR9612	478192.00	7214336.00	622.00	100.58
NBR9613	478171.00	7214452.00	612.00	155.45
NBR9614	478171.00	7214452.00	612.00	96.01
NBR9615	478158.00	7214590.00	592.00	128.02
NBR9616	478158.00	7214590.00	592.00	91.44
NED9701	484252.00	7218320.00	650.00	214.27
RKR9801	483823.00	7214049.00	550.00	153.92
TKR9801	480520.00	7215721.00	356.00	92.96
TKR9802	480471.00	7215601.00	399.00	92.96
TKR9803	480371.00	7215481.00	452.00	92.96
TKR9804	480491.00	7215387.00	442.00	92.96
TKR9805	480492.00	7215297.00	454.00	92.96
TKR9806	480498.00	7215214.00	463.00	96.01
TKR9807	480556.00	7215648.00	366.00	130.15
TKR9808	481300.00	7215800.00	440.00	120.40
TKR9809	480982.00	7215637.00	376.00	101.50
TKR9810	480937.00	7215188.00	383.00	18.29
TKR9811	480697.00	7215274.00	398.00	124.05
TKR9812	480652.00	7215389.00	397.00	120.40
TKR9813	480995.00	7215180.00	400.00	120.40
TKR9814	480537.00	7215151.00	465.00	150.88
TLD0401	479227.00	7215362.00	420.00	164.60
TLD0402	479162.00	7215350.00	431.00	168.60
TLD0403	479100.00	7215336.00	441.00	164.90
TLD0404	479100.00	7215138.00	470.00	182.90

TLD0405	478930.00	7215174.00	445.00	137.20
TLD0406	478900.00	7214897.00	476.00	143.30
TLD0407	478750.00	7215160.00	399.00	131.10
TLD9801	479051.00	7215209.00	461.30	314.86
TLR9501	479053.00	7215273.00	447.00	126.49
TLR9502	479053.00	7215273.00	447.00	60.96
TLR9503	479053.00	7215273.00	447.00	91.44
TLR9504	479054.00	7215207.00	455.00	144.78
TLR9505	479054.00	7215207.00	455.00	106.68
TLR9506	479100.00	7215238.00	460.00	121.92
TLR9507	479099.00	7215208.00	459.00	79.25
TLR9508	478977.00	7215191.00	452.00	88.39
TLR9509	478977.00	7215192.00	451.00	114.30
TLR9510	478977.00	7215199.00	450.00	88.92
TLR9511	478979.00	7215235.00	446.00	33.53
TLR9512	478979.00	7215237.00	445.00	33.53
TLR9513	479110.00	7215177.00	460.00	100.58
TLR9514	479110.00	7215177.00	460.00	126.80
TLR9515	479110.00	7215177.00	460.00	112.78
TLR9516	479052.00	7215148.00	469.00	95.71
TLR9517	479040.00	7215042.00	481.00	77.72
TLR9518	479023.00	7214922.00	496.00	83.82
TLR9519	479020.00	7214796.00	515.00	138.68
TLR9520	479157.00	7215028.00	483.00	138.68
TLR9601	479272.00	7215144.00	450.00	82.91
TLR9602	479232.00	7215284.00	430.00	97.54
TLR9603	479168.00	7215344.00	430.00	77.72
TLR9604	478930.00	7215172.00	439.00	132.59
TLR9605	478930.00	7215172.00	439.00	102.11
TLR9606	478917.00	7215061.00	454.00	131.98
TLR9607	478917.00	7215061.00	454.00	124.97
TLR9608	478917.00	7215061.00	454.00	96.01
TLR9609	478997.00	7215155.00	460.00	182.88
TLR9610	479031.00	7215199.00	455.00	146.00
TLR9611	478733.00	7214788.00	434.00	6.10
TLR9612	478917.00	7215121.00	448.00	103.63
TLR9613	478822.00	7214948.00	441.00	155.45
TLR9614	478822.00	7214948.00	441.00	77.72
TLR9615	478834.00	7215177.00	415.00	91.44
TLR9616	478834.00	7215176.00	415.00	76.20
TLR9617	478839.00	7215186.00	415.00	100.58
TLR9618	478853.00	7215119.00	430.00	141.73
TLR9619	478853.00	7215118.00	430.00	100.58
TLR9620	478853.00	7215052.00	436.00	146.30

TLR9621	478853.00	7215051.00	436.00	74.68
TLR9622	478824.00	7215024.00	437.00	134.11
TLR9623	478824.00	7215024.00	437.00	108.20
TLR9624	478824.00	7215024.00	437.00	114.30
TLR9625	478902.00	7214912.00	474.00	155.45
TLR9626	478902.00	7214912.00	474.00	128.02
TMG9601	484828.00	7216798.00	622.00	96.01
TMG9602	484943.00	7216787.00	590.00	100.58
TMG9603	485137.00	7216803.00	565.00	91.44
TMG9604	485274.00	7216796.00	554.00	105.16
TMG9605	484828.00	7216646.00	625.00	137.16
TMG9606	484950.00	7216631.00	590.00	146.30
TMG9607	485114.00	7216636.00	541.00	128.02
TMG9608	485296.00	7216633.00	508.00	155.45
TMG9609	484828.00	7216493.00	628.00	137.16
TMG9610	484981.00	7216493.00	604.00	132.59
TMG9611	485133.00	7216493.00	570.00	155.45
TMG9612	485285.00	7216493.00	543.00	128.02
TMG9613	484828.00	7216341.00	622.00	141.73
TMG9614	484981.00	7216341.00	604.00	141.73
TMG9615	485133.00	7216341.00	579.00	155.45
TMG9616	485285.00	7216341.00	555.00	155.45
TMG9617	484981.00	7216188.00	585.00	155.45
TMG9618	485133.00	7216188.00	567.00	137.16
TMG9619	485285.00	7216188.00	546.00	155.45
WFR9801	480214.00	7216639.00	321.00	161.54
WFR9802	481292.00	7216985.00	506.00	92.96
WFR9803	481270.00	7217166.00	478.00	92.96
WFR9804	481279.00	7217076.00	492.00	92.96

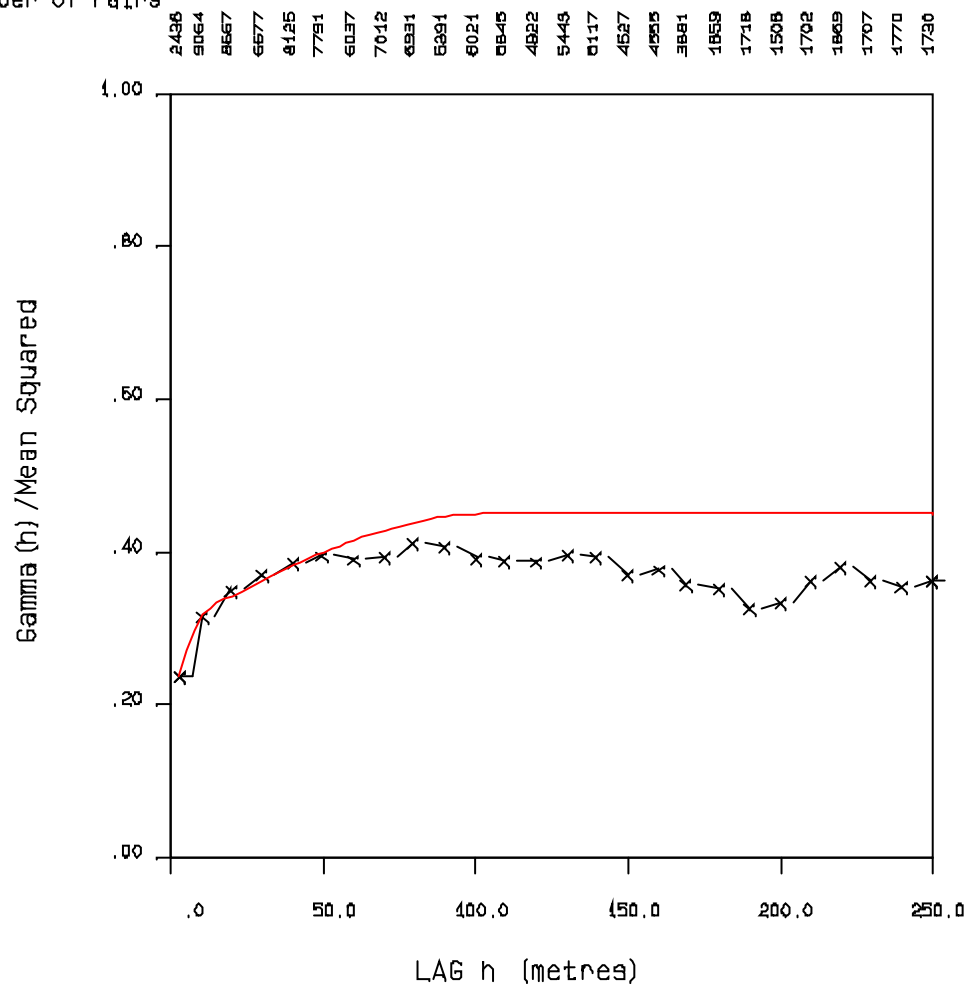
**APPENDIX 3**  
**SEMIVARIOGRAMS FOR AU IN LOW GRADE STOCKWORK MINERALIZATION**  
**AND FOR HIGH GRADE INDICATOR VARIABLE IN SHEAR ZONES**





$C0 = .200$   
 $C1 = .100$   
 $C2 = .150$   
 $A1 = 12.0$   
 $A2 = 104.0$

Number of Pairs



LOW GRADE AU - AZ 158 DIP -73

C0 = .200

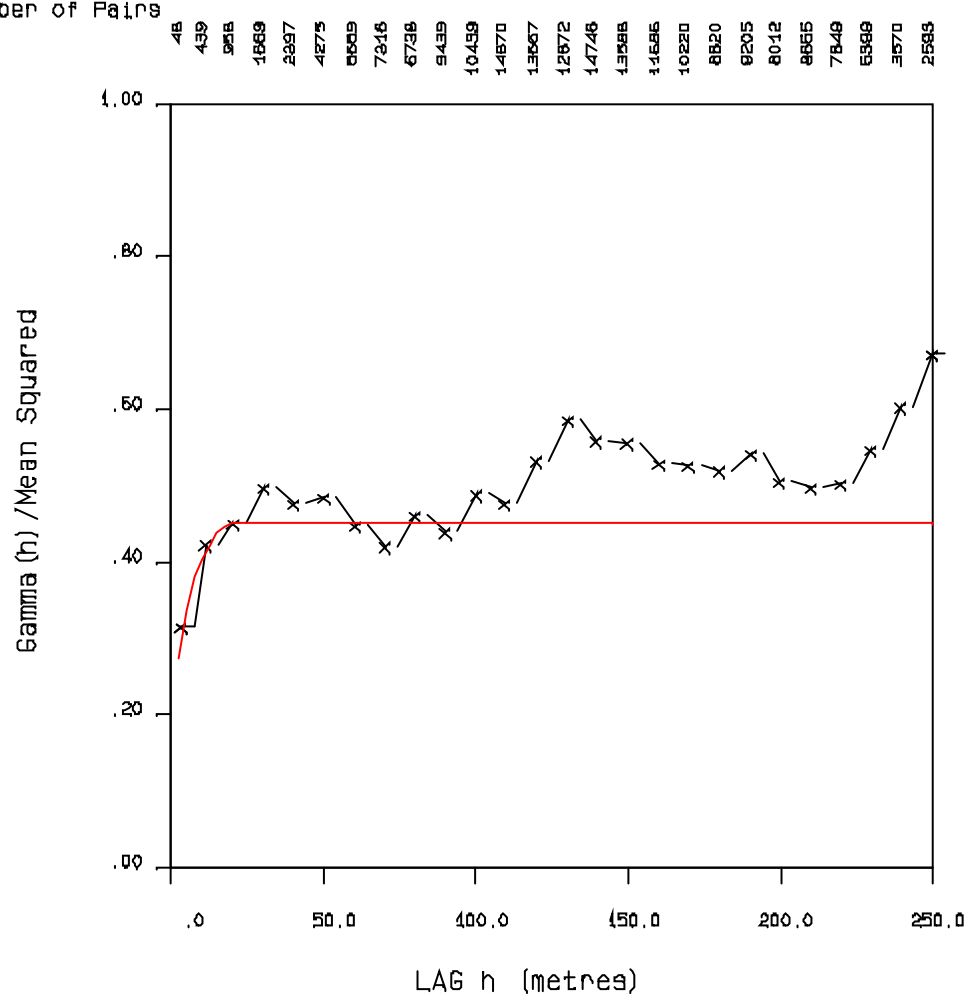
C1 = .100

C2 = .150

A1 = 8.0

A2 = 20.0

Number of Pairs



LOW GRADE AU - AZ 338 DIP -17

C0 = 1.400

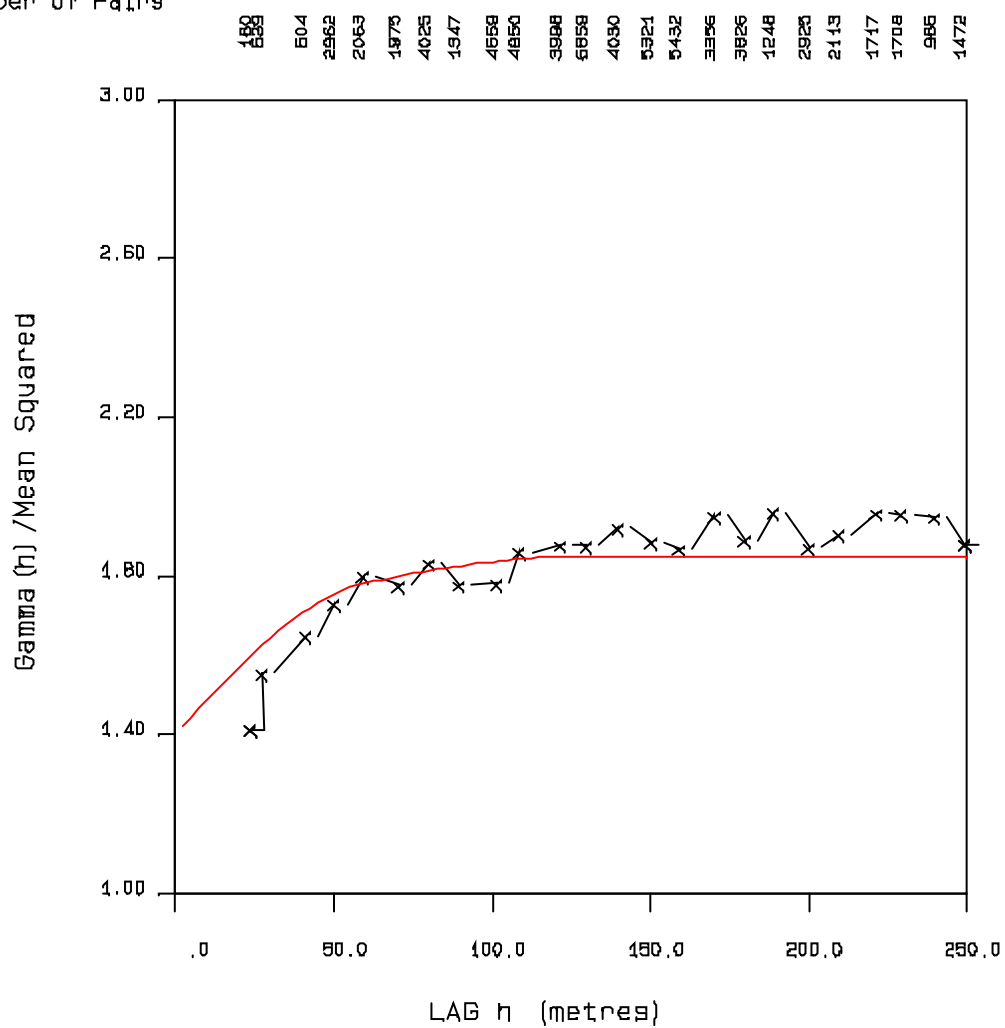
C1 = .260

C2 = .190

A1 = 60.0

A2 = 130.0

Number of Pairs



AU HG IND - AZ 90 DIP 0

C0 = 1.400

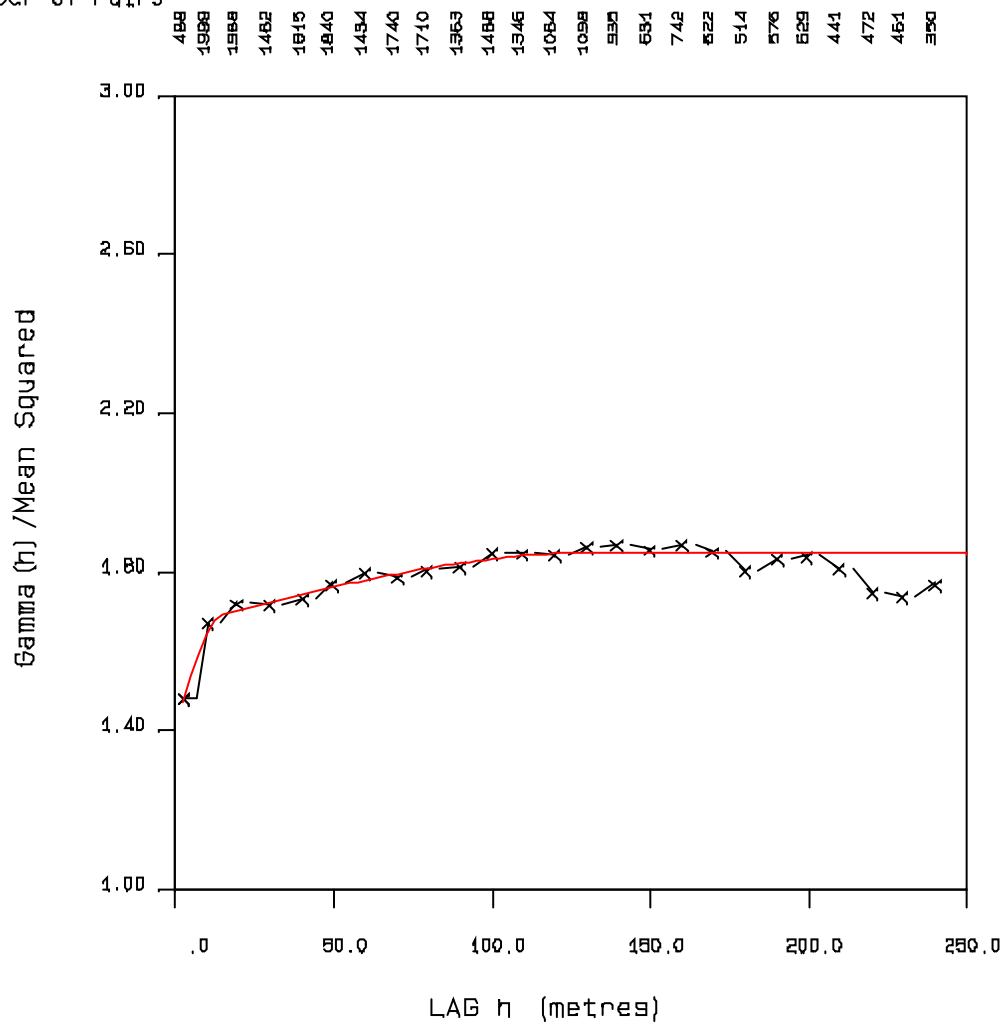
C1 = .260

C2 = .190

A1 = 15.0

A2 = 134.0

Number of Pairs



AU HG IND - AZ 0 DIP -85

C0 = 1.400

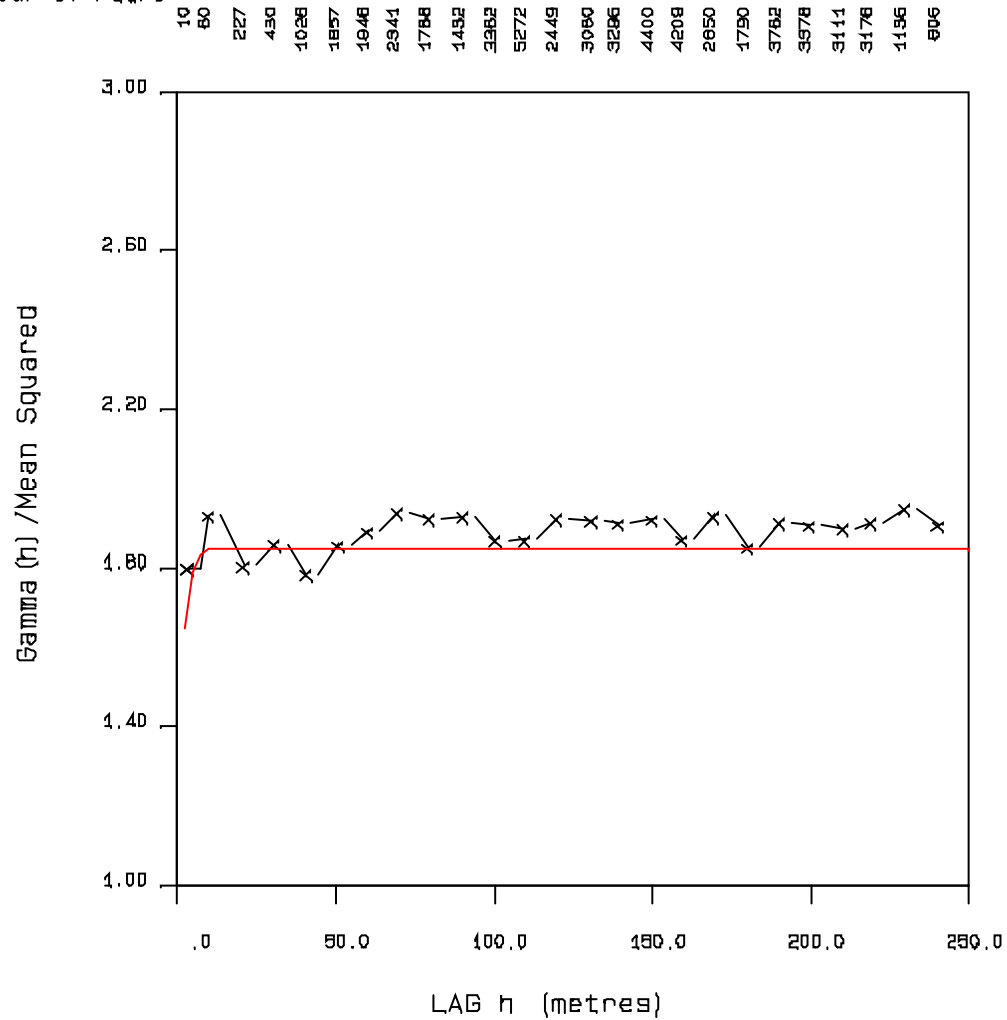
C1 = .260

C2 = .190

A1 = 5.0

A2 = 10.0

Number of Pairs



AU HG IND - AZ 180 DIP -5