# Diamond Drilling

## Assessment Report

## on the

## IKS Property

## (Mining Lease, Lot. 7166)

**Skeena Mining Division**

**NTS: 104B/9W**
**Latitude: 56.66°**
**Longitude: 130.43°**

**Owned and Operated by:**

**Homestake Canada Inc.**
**#1100-1055 West Georgia St.**
**Vancouver, BC**
**V6E 3P3**

**Submitted by:**

**J. Lewis, B.Sc.**
**D. Gale, M. Sc.**

**December 7th, 2000**

## Executive Summary

The Eskay Creek ore bodies are located immediately south of the IKS Property, and their trend projects northwards into the center of the property, but to date, no mineralization of significance has been intersected north of the ore bodies currently being mined. Drilling in 2000 targeted two areas on the IKS property that had received relatively sparse drilling in the past. Two holes were drilled to test for the presence of the mine stratigraphy, and for the possible presence of mineralization related to the Eskay Creek hydrothermal system that produced the various ore bodies at the mine.

One of the two holes successfully intersected the mine stratigraphy, but the contact mudstone was essentially non-existent, and no mineralization or alteration of interest was encountered. The other hole was lost high up in the hanging wall sequence due to ground conditions, and was therefore unable to test for the presence of the mine stratigraphy and possible mineralization in this area.

The property remains highly prospective for further drilling, but the extreme thickness of the Bowser Group cover rocks, and the difficult ground conditions, make further work challenging and expensive. Surface mapping may be able to outline large-scale structures (faults and folds) in the Bowser package that may continue at depth into the prospective Hazelton package. These structures may be important in any further drill hole planning.

Further drilling is definitely warranted on the property, but only in certain areas. Drilling north of the areas covered in 2000 is not suggested at this time, due to the depth of the prospective stratigraphy

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# 1. Introduction

This report constitutes a summary of fieldwork carried out on the IKS Property by Homestake Canada Inc. during the summer of 2000.

## 1.1 Location and Access

The IKS Property is situated immediately to the north of the Eskay Creek Mine, in northern BC. The mine is located approximately 83 kilometers northwest of Stewart, British Columbia, along the eastern flanks of the Coast Mountain ranges (Figure 1.1). The mine is accessible by a 58.5 kilometer, all-weather road from the Stewart Cassiar Highway (Highway 37) just south of the hamlet of Bob Quinn. The IKS Property is accessible from the Mine Site, by foot or via helicopter.

## 1.2 Land Status

The IKS Property is located in the Skeena Mining Division and consists of the Lot. 7166 Mining Lease and the IKS 2 mineral claim (Figure 1.2), 100% owned by Homestake Canada Inc. Work undertaken on the property in 2000 is being applied to the IKS 2 claim itself, and a series of surrounding/contiguous claims, also 100% owned by Homestake. A summary of the mineral titles and tenure of all the mining leases and claims in question is presented in Table 1.2.

## 1.3 Physiography

The Eskay Creek Mine is located on the Prout Plateau, a rolling sub-alpine upland along the eastern flank of the Boundary Ranges of the Coast Mountains. The plateau is characterized by moderately to strongly glaciated rock terrain along the top of the plateau, and moderate to dense forest cover off the flanks. Elevations range from 330 meters along the Iskut River to 1200 meters along the ridges.

The surficial geology of the immediate mine area is highly variable. It includes glacial till deposits, colluvium on steep slopes, organics in poorly drained depressions, alluvial deposits flanking streams, and alluvial fan deposits along shorelines.

Vegetation on the property is governed by a combination of elevation, water supply and slope. Above 950 meters elevation, the vegetation is sub-alpine in nature, consisting of stunted balsam, heather, and grasses. Below 950 meters, old growth spruce, fir, and hemlock predominate. Steep slopes commonly show evidence of avalanche scarring, such as dense growth of slide alder, devil's club, and skunk cabbage.

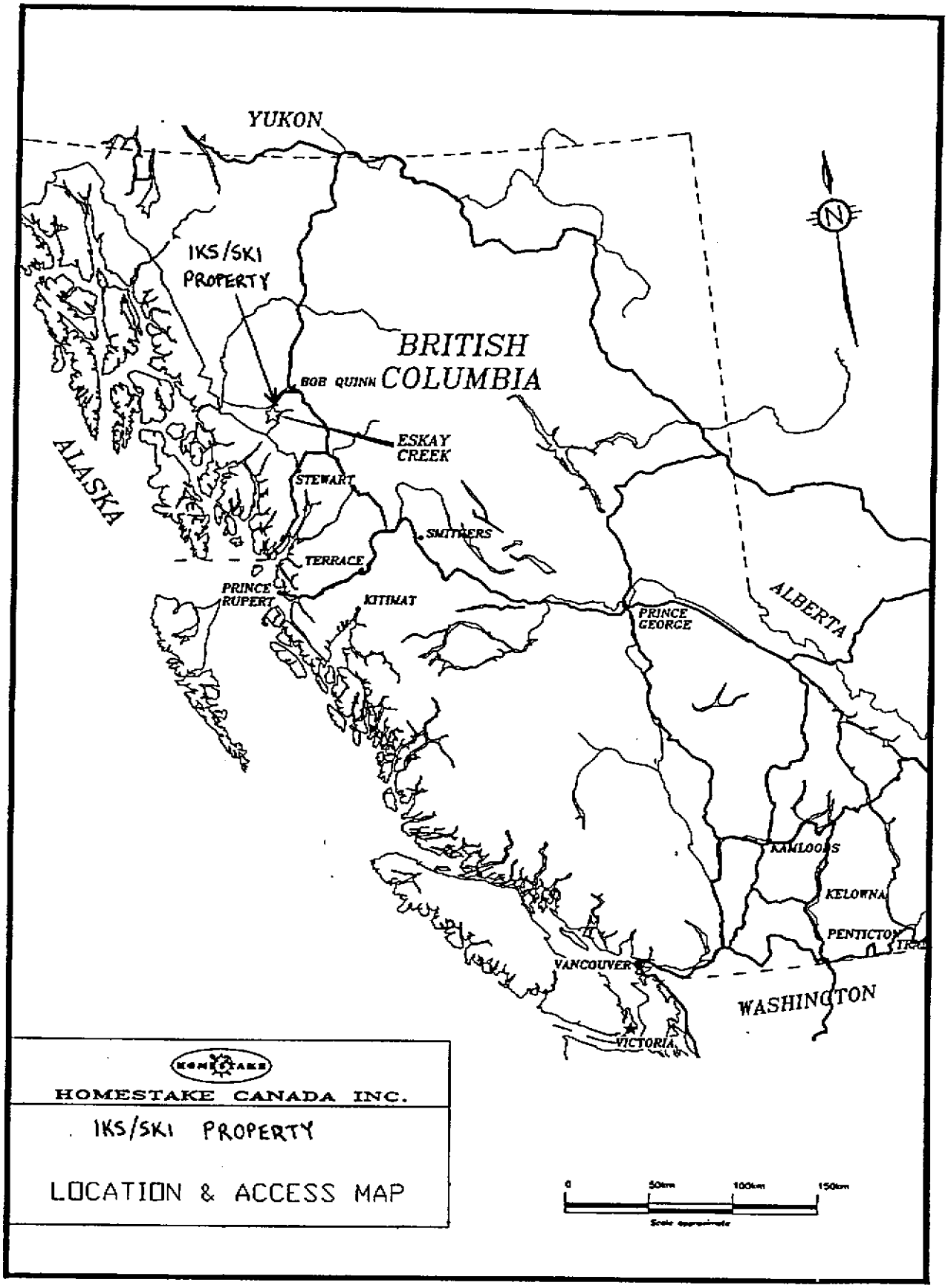
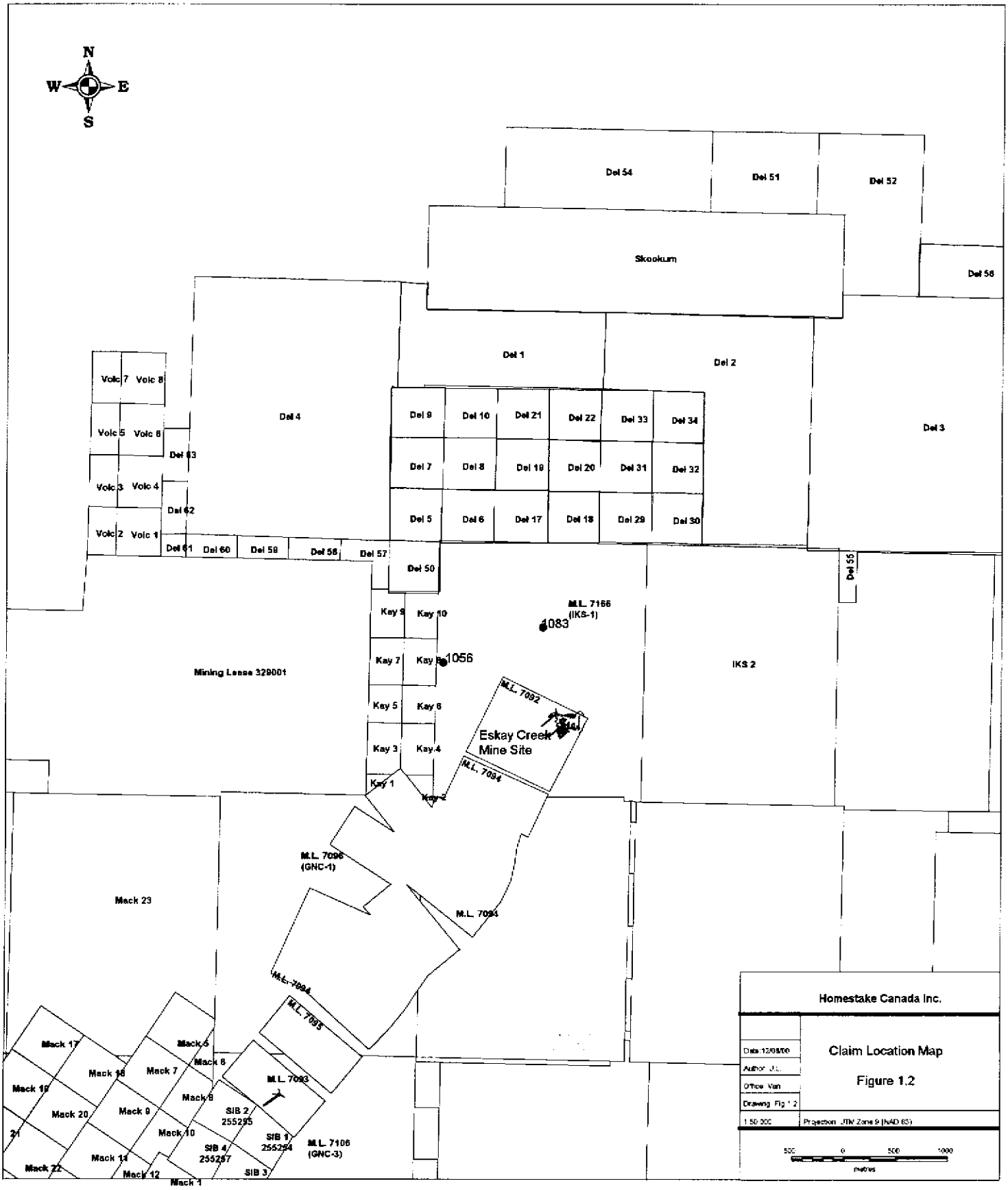



**Figure 1.1 Location and Access Map**

**Table 1.2: Claim Status**

| Claim Name | Tenure No. | Units | Record Date | Expiry Date* |
|---|---|---|---|---|
| ML 7166 | 329944 | 1 | 1994.12.06 | 2024.12.06 |
| IKS 2 | 252976 | 20 | 1989.08.02 | 2010.08.02 |
| VOLC 1 | 320872 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 2 | 320873 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 3 | 320874 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 4 | 320875 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 5 | 320876 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 6 | 320877 | 1 | 1993.08.30 | 2009.08.30 |
| VOLC 7 | 320878 | 1 | 1993.09.05 | 2009.09.05 |
| VOLC 8 | 320879 | 1 | 1993.09.05 | 2009.09.05 |
| DEL 1 | 372182 | 20 | 1999.09.28 | 2009.09.28 |
| DEL 2 | 372183 | 20 | 1999.09.28 | 2009.09.28 |
| DEL 3 | 372184 | 20 | 1999.09.30 | 2009.09.30 |
| DEL 4 | 372185 | 20 | 1999.09.29 | 2009.09.29 |
| DEL 5 | 372186 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 6 | 372187 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 7 | 372188 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 8 | 372189 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 9 | 372190 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 10 | 372191 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 17 | 372192 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 18 | 372193 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 19 | 372194 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 20 | 372195 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 21 | 372196 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 22 | 372197 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 29 | 372198 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 30 | 372199 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 31 | 372200 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 32 | 372201 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 33 | 372202 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 34 | 372203 | 1 | 1999.09.27 | 2002.09.27 |
| DEL 50 | 372204 | 1 | 1999.09.27 | 2009.09.27 |
| DEL 51 | 378529 | 16 | 2000.07.02 | 2005.07.02 |
| DEL 52 | 378530 | 16 | 2000.07.02 | 2005.07.02 |
| DEL 54 | 378532 | 20 | 2000.07.02 | 2005.07.02 |
| DEL 55 | 378533 | 1 | 2000.06.29 | 2008.06.29 |
| DEL 56 | 379748 | 12 | 2000.08.11 | 2005.08.11 |
| DEL 57 | 379749 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 58 | 379750 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 59 | 379751 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 60 | 379752 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 61 | 379753 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 62 | 379754 | 1 | 2000.08.12 | 2009.08.12 |
| DEL 63 | 379755 | 1 | 2000.08.12 | 2009.08.12 |
| CAL 4 | 253199 | 4 | 1989.09.16 | 2009.09.16 |

*Note: Expiry dates indicated here are subject to MEM approval of this Assessment Report.


N
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Del 51
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Skookum
Del 58
Del 1
Del 2
Del 3
Del 4
Volc 7
Volc 8
Volc 5
Volc 6
Del 63
Volc 3
Volc 4
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Del 50
Del 55
Kay 9
Kay 10
Kay 7
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Kay 4
Kay 1
Kay 2
M.L. 7166
(IKS-1)
1083
1056
Mining Lease 329001
IKS 2
M.L. 7092
1084
Eskay Creek
Mine Site
M.L. 7094
M.L. 7096
(GNC-1)
Mack 23
M.L. 7094
M.L. 7094
M.L. 7093
Mack 17
Mack 18
Mack 5
Mack 6
Mack 7
Mack 19
Mack 8
M.L. 7093
Mack 20
Mack 9
SIB 2
255255
21
Mack 10
SIB 1
255254
M.L. 7106
(GNC-3)
SIB 4
255257
Mack 22
Mack 11
Mack 12
SIB 3
Mack 1
Homestake Canada Inc.
Claim Location Map
Figure 1.2
Date 12/08/00
Author J.L.
Office Van
Drawing Fig 1 2
1:50,000
Projection UTM Zone 9 (NAD 83)
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metres

Annual precipitation at the Eskay Creek Mine site is heavy and ranges from 2000 to 3500 mm. Most of the precipitation falls as snow between November and April, resulting in thick accumulations of 10 to 20 meters. This snow pack does not fully disappear until early August. The summers are generally cool and damp.

## 1.4 Exploration History

The Eskay Creek property has been the focus of much exploration activity, dating from 1932 to the present. Numerous of geological mapping, geochemical sampling, geophysical surveying, trenching, and diamond drilling programs have been carried out on the property, with various base/precious metal and VMS-style targets in mind. This work culminated in discovery of the 21A and 21B Zones in 1988-89, followed by underground development of the 21B Zone in 1990-91, and the official opening of the Eskay Creek Mine in 1995. Current reserves for the Eskay Creek Mine stand at 2.41 million ounces of gold and 110 million ounces of silver, based on a tonnage of 1.61 million tons at a grade of 1.50 oz/t Au and 68.30 oz/t Ag (Homestake Mining Company 1999 Annual Report).

The bulk of the above work was completed on the TOK and KAY claims (now the 7092-7095 Mining Leases), which immediately overlie the ore bodies. The IKS claims to the north have received less vigorous exploration activity, due to a thick cover of non-prospective stratigraphy.

## 1.5 2000 Exploration Program

The 2000 diamond drilling program on the IKS Property included two holes, totaling 2235.71 metres. These holes were designed to test for the presence of the 'mine stratigraphy', and any forms of mineralization, in the eastern and middle sections of the property, in areas of low drilling density.

# 2. Geology

## 2.1 Regional Geology

The Iskut River Region lies near the western margin of the Intermontane Tectonic Belt within the Stikine Terrane of the Northern Cordillera (Table 2.1 and Figure 2.1). In this area, deformed and metamorphosed sedimentary and volcanic rocks of the Paleozoic Stikine Assemblage are overlain by Triassic and Jurassic volcano-sedimentary arc complexes of the Stikinia Assemblage. These, in turn, are capped by Middle to Upper Jurassic siliciclastic sediments of the Bowser Basin that formed an overlap assemblage following the amalgamation of the Stikine and Cache Creek Terranes. Plutonic rocks commonly intrude all these assemblages, with a total of six suites being recognized (Table 2.11).

**Table 2.1: Iskut River Tectonic Rock Units** (After Anderson, 1989)

| ASSEMBLAGE | AGE | ROCK UNITS |
|---|---|---|
| Coast Plutonic Complex | Tertiary | Post tectonic felsic plutons. |
| "Bowser Overlap" Assemblage (includes Bowser Lake Group) | Middle-Upper Jurassic | Deformed siliciclastic sediments. |
| "Stikinia" Assemblage (includes Stuhini & Hazelton Groups) | Triassic-Jurassic | Deformed volcanics, intrusives, and basinal sediments. |
| Stikine Assemblage | Early Devonian to Early Permian | Highly deformed limestones and volcanics. |

**Table 2.11: Iskut River Plutonic Rock Units** (After MDRU, 1992)

| | | |
|---|---|---|
| Coast Plutonic Complex | Lamprophyres, Gabbro-Syenite<br>→ Post tectonic | Tertiary<br>(18-25 Ma) |
| Hyder | Monzogranite, Monzonite, Granodiorite<br>→ Post tectonic | Tertiary<br>(36-57 Ma) |
| Eskay Creek | Monzodiorite | Middle Jurassic<br>(185 +/-2 Ma) |
| Sulphurets | Felsic intrusives/extrusives | Middle Jurassic<br>(185.9 Ma) |
| Texas Creek | Calc-Alk Granodiorite, Qtz Monzodiorite,<br>Commonly cut by andesite dikes | Early Jurassic<br>(189-195 Ma) |
| Stikine | Cpx-Gabbro, Diorite, Monzodiorite, Monozonite<br>Co-spatial with Stuhini volcanics. | Late Triassic<br>(210 Ma) |

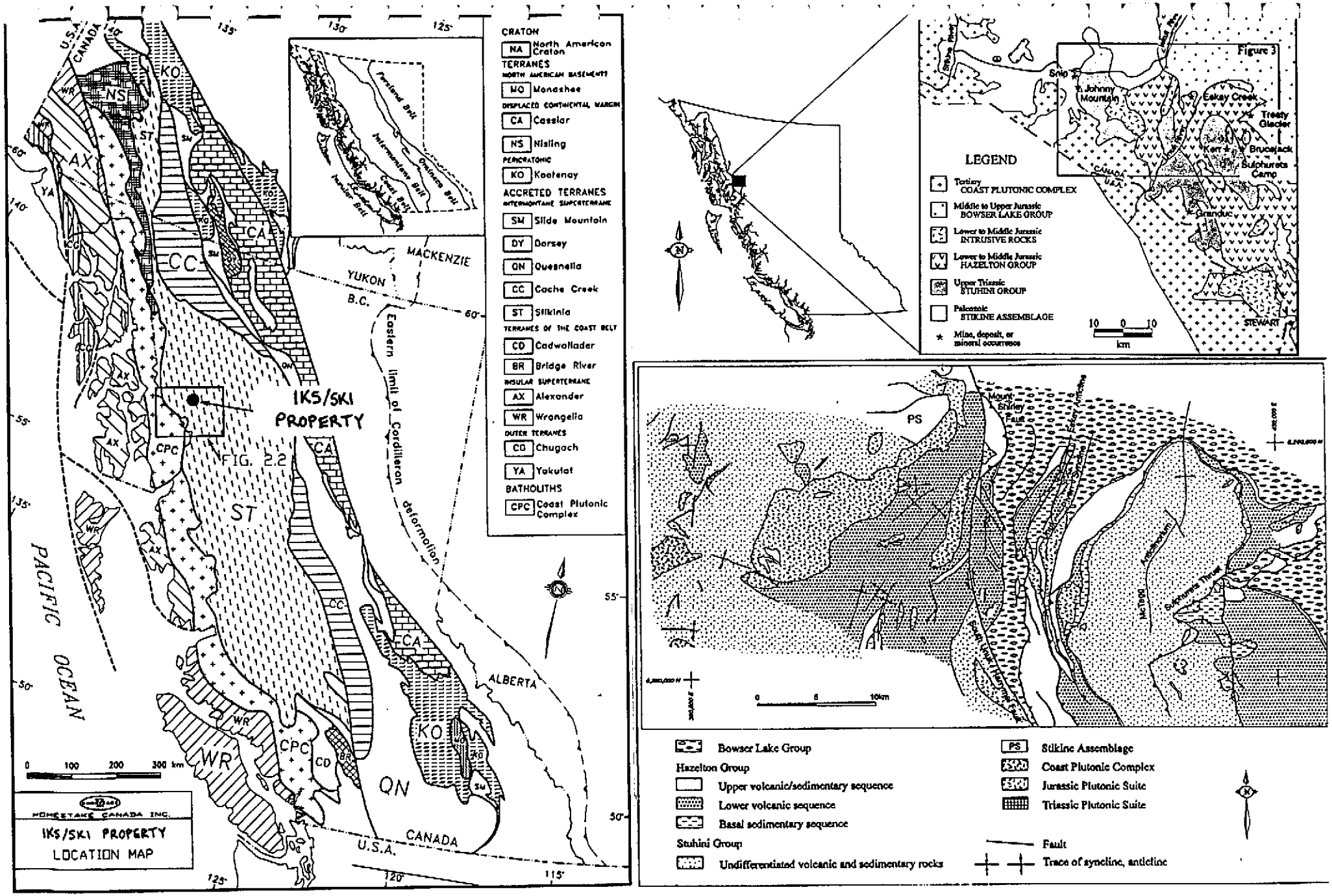



**Figure 2.1 Regional Setting**

(Map on left illustrates the position of the property in a lithotectonic belt sense, while the two maps on the right show the generalized regional geology of the Iskut River area, taken from MacDonald et al, 1996).

The dominant structural features within the Iskut River Region consist of north-northeast plunging regional anticline and syncline pairs accompanied by strong, regionally-developed, steeply dipping, penetrative cleavage fabrics. The regional folds and cleavage fabrics are interpreted to have formed during a mid-Cretaceous orogenic shortening event centered on a northwesterly compressive axis.

The area has also been cut by numerous faults of varying orientations and interpreted ages. Those related to the regional Cretaceous shortening event include west-vergent thrust faults such as the Coulter Creek Fault. Other major faults include north, northwest, and northeast-striking sub-vertical structures, which form strong topographic lineaments and displace both stratigraphic contacts and mineralized zones. Many of these faults developed during a second period of deformation with a northeast compressive axis and include such major features as the South Unuk/Harrymel Structure, the Forrest-Kerr Fault, and the Argillite Creek Fault.

Mineralization in the Iskut River Area is varied in both age and deposit type. Examples of deposit type include the following:

1) porphyry, skarn, and related vein deposits
2) near-surface, epithermal alteration and vein systems
3) submarine exhalative precious and base metal mineralization systems

All of these deposits exhibit a close spatial relationship to Late Triassic to Early Jurassic sub-volcanic plutons, particularly the potassium megacrystic, plagioclase and biotite porphyritic intrusions that were emplaced between 180 Ma and 200 Ma. A list of the major mineral deposits that occur in the Iskut Area can be found in Table 2.12.

**Table 2.12: Mineral Deposit Types of the Iskut River Area** (After Edmunds & Kuran, 1993).

| OCCURRENCE | DEPOSIT TYPE | COMMENTS | AGE |
|---|---|---|---|
| Kerr | Alkaline Porphyry | 66 mT @ 0.84%Cu & 0.01 Au opt | Upper Triassic |
| Galore Creek | Alkaline Porphyry | 125 mT @ 0.011 Au opt 1.06% Cu | Lower Jurassic |
| Snip | Mesothermal Gold | 2.4 mT @ 0.65 Au opt | Lower Jurassic (Texas Creek) |
| Johnny Mountain | Mesothermal Gold | 0.3 mT @ 0.83 Au opt | Lower Jurassic (Texas Creek) |
| Premier-Silbak | Epithermal Gold | 4.6 mT @ 0.39 Au opt | Lower Jurassic (Texas Creek) |
| Sulphurets | Mesothermal Gold | 1.4 mT @ 0.35 Au opt | Lower Jurassic |
| Eskay Creek | Volcanic Associated Massive Sulphide | | Lower-Middle Jurassic |

## 2.2 Property Geology

The Eskay Creek deposit is hosted within the Jurassic rocks of the Stikina Assemblage (Table 2.2). It is situated near the northern margin of the Eskay Anticline, at the stratigraphic transition from marine sediments of the Bowser Lake Group to volcanic rocks of the uppermost Hazelton Group. The Hazelton Group has been further subdivided into four rock formations which (ranging from oldest to youngest) include the Unuk River Formation, Betty Creek Formation, Mt. Dilworth Formation, and the Salmon River Formation (see Table 2.2 and Figures 2.2 and 2.21).

**Table 2.2: Stikinia Assemblage Description** (After Anderson & Thorkelson, 1990)

| Formation/Group | Lithologies | Age (Ma) |
|---|---|---|
| Ashman Fm. (Bowser Lake Group) | Shale, siltstone, greywacke, sandstone, and chert pebble conglomerate. | 156-163 Ma |
| Salmon River Fm. (Hazelton Group) | Upper: black, siliceous to locally calcareous mudstone, and occasional pale reworked tuffs.<br><br>Lower: thin, locally belemnite-rich, calcareous to graphitic mudstones, and a bimodal volcanic suite consisting of massive to pillowed andesite flows overlying rhyolitic volcanics and volcaniclastics. | 163-187 Ma<br><br>187-193 Ma |
| Mount Dilworth Fm. (Hazelton Group) | White-maroon-grey weathering welded to non-welded felsic tuff and tuff breccias. Flow sequences can be massive to amygdular to flow-banded, and have a dacite to rhyo-dacite composition. | ~193 Ma |
| Betty Creek Fm. (Hazelton Group) | Maroon to green weathering volcanic siltstones, greywackes, and andesitic breccias and/or epiclastics (coarse monolithic conglomerates). | 193-196 Ma |
| Unuk River Fm. (Hazelton Group) | Rusty weathering, thinly bedded, siliciclastic to calcareous siltstones and sandstones. | ~198 Ma |

At the base of the stratigraphic package, and occupying the core of the Eskay Anticline, lies the Unuk River Formation. It is a thick sequence of coarse breccias and volcaniclastic (andesitic?) rocks topped by marine shales and clastic sediments. It is overlain by the Betty Creek Formation, which has been informally divided into upper and lower members. The upper Eskay Creek Member is dominated by sediment and epiclastic units while the lower East Ridge Member is comprised chiefly of andesitic epiclastic and volcaniclastic rocks. The next rocks in the succession are the regionally extensive, felsic pyroclastic deposits of the Mt. Dilworth Formation. This felsic package is separated from the overlying Salmon River Formation by a volcanic hiatus that allowed the accumulation of 10-15m of black mudstone.

The Salmon River Formation, host to the Eskay Creek Deposit, is divided into a homogeneous upper section of mudstone and argillite, and a heterogeneous bimodal volcano-sedimentary assemblage forming the lower section. This lower bimodal volcanic package consists of an upper submarine mafic flow/dyke sequence that overlies a rhyolite flow-dome complex termed the 'Eskay Rhyolite'. Interbeds of pyrite-laminated mudstone and vitric tuffs occur intermittently throughout this package. A mudstone bed containing Aalenian fossils and termed the 'Contact Mudstone' is found at the base of the Salmon River mafic package and immediately overlying the 'Eskay Rhyolite'. This unit varies in thickness up to 50m and serves as the main host to Eskay mineralization.

Capping the entire sequence are thick accumulations of Bowser Lake Group mudstones, sandstones, and conglomerates. Bowser stratigraphy completely dominates the IKS Property geology.

Intrusives are relatively common throughout the stratigraphic sequence. The lower section (rocks stratigraphically below the Salmon River bimodal volcanics) is locally intruded by a porphyritic monzodiorite sill (known as the Eskay Creek Porphyry). Felsic and mafic sills and dykes also cut this lower stratigraphy locally, and are thought to represent the high level intrusive feeders to the Salmon River bimodal sequence. Intrusive activity in the Bowser Group stratigraphy is restricted to rare magnetic mafic dykes (post-tectonic) that generally strike NE-SW.

## 2.3 Structure

The rocks around Eskay Creek have been deformed by at least two tectonic events. The earliest deformation event (D1) was a NNW compression that formed NE-trending syncline-anticline pairs (eg. the Eskay Creek Anticline), and a moderately to strongly developed spaced cleavage. The cleavage is pervasive in all the fine-grained sedimentary lithologies. Faulting late in the D1 event developed E-dipping thrust sheets south of Eskay Creek such as the Coulter Creek Thrust.

The second deformational event (D2) was a NNE compression, which locally re-oriented the D1 cleavage planes and formed prominent N- and NE-trending, steeply dipping faults. Cross-cutting relations suggest that the north set is the earliest with apparently consistent sinistral displacement, while the northeast trending set displays oblique normal displacement. Some of the more significant faults include the Argillite Creek Fault, Andesite Creek Fault, Pumphouse Creek Fault, Portal Fault and East Break Fault.

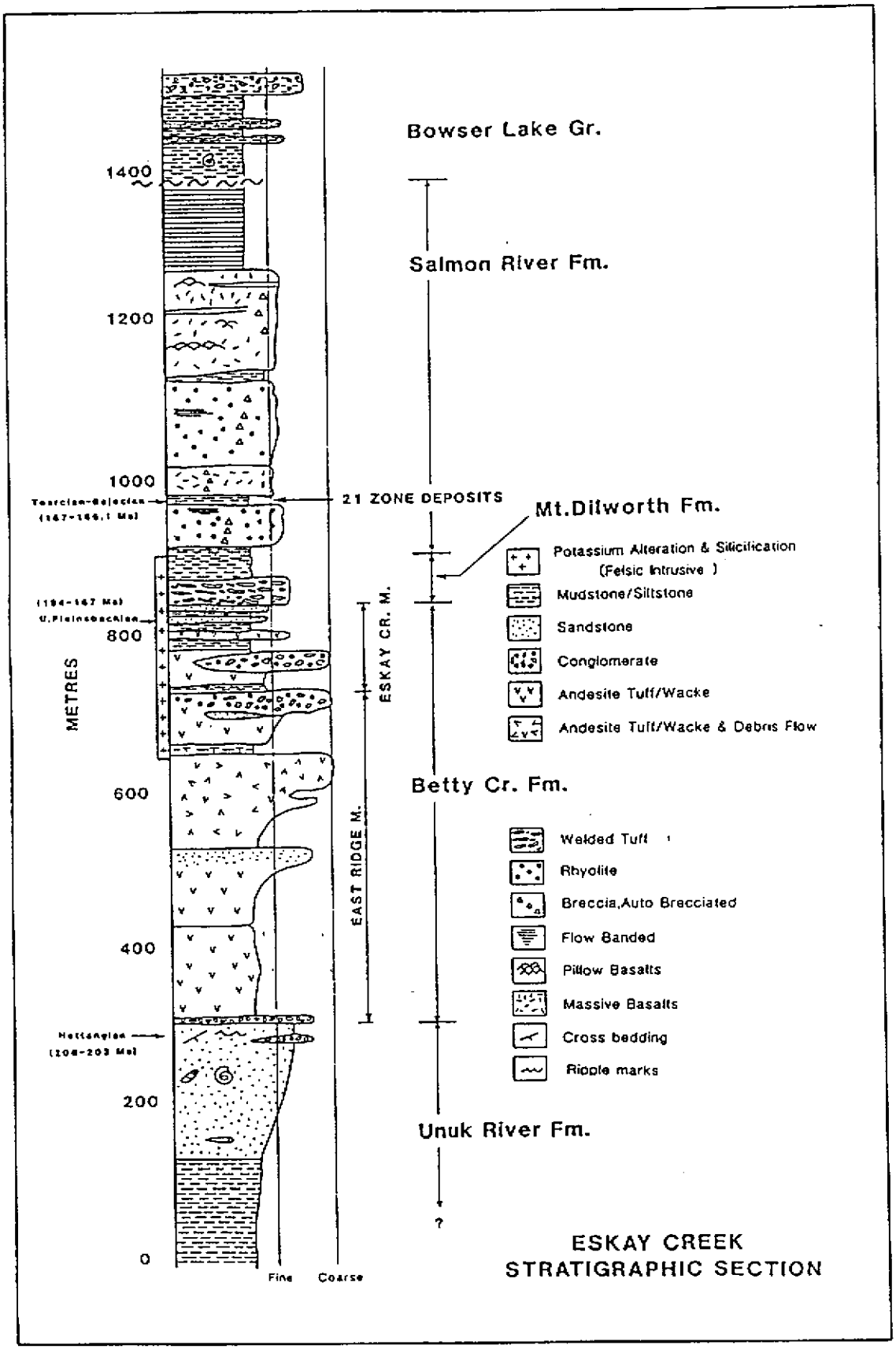
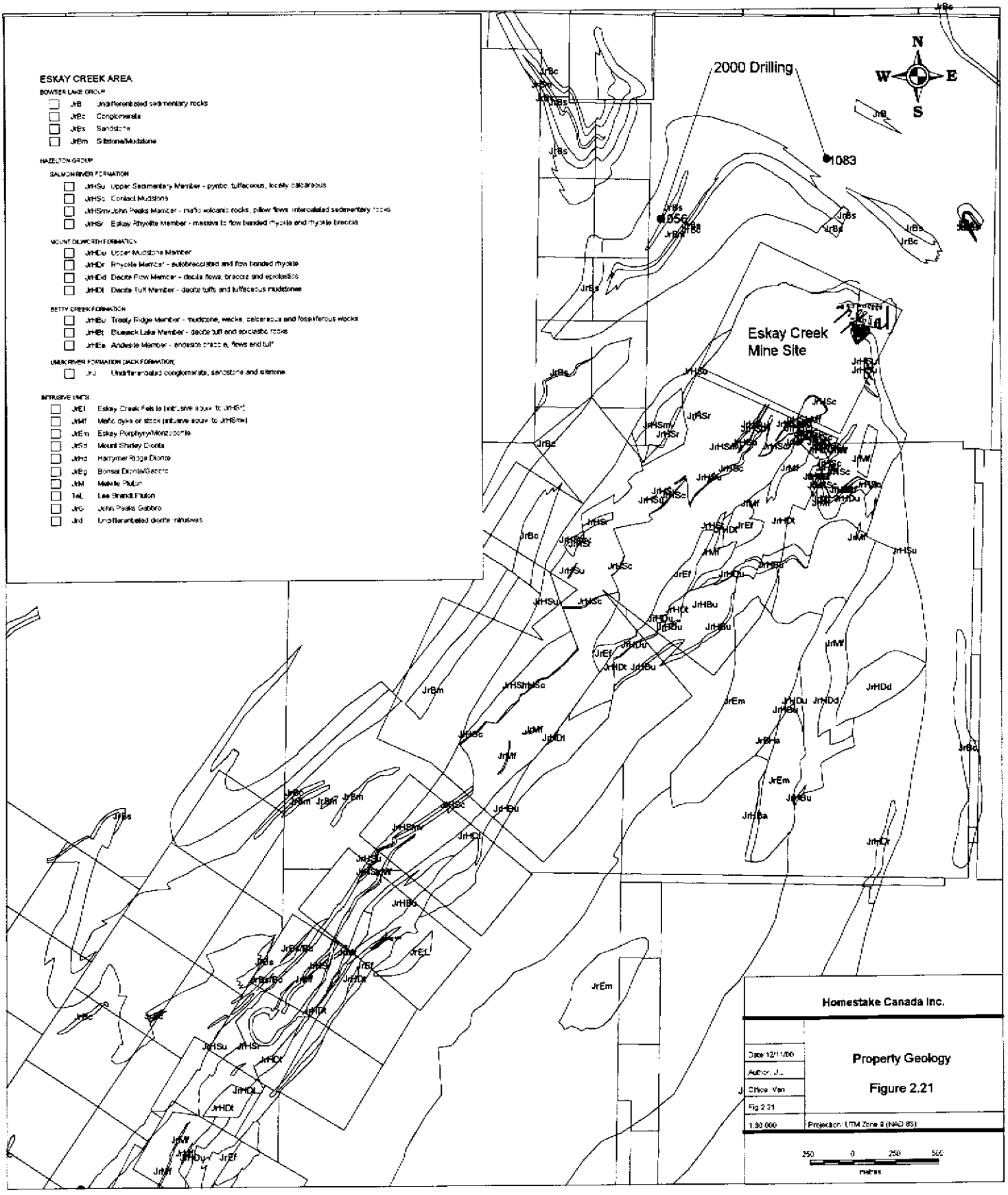



**Figure 2.2 Eskay Stratigraphic Section**


ESKAY CREEK AREA
BOWSER LAKE GROUP
JrB Undifferentiated sedimentary rocks
JrBc Conglomerate
JrBs Sandstone
JrBm Siltstone/Mudstone
HAZELTON GROUP
SALMON RIVER FORMATION
JrHSu Upper Sedimentary Member - pyritic, tuffaceous, locally calcareous
JrHSc Contact Mudstone
JrHSmv John Peaks Member - mafic volcanic rocks, pillow flows, intercalated sedimentary rocks
JrHSr Eskay Rhyolite Member - massive to flow banded rhyolite and rhyolite breccia
MOUNT DILWORTH FORMATION
JrHDu Upper Mudstone Member
JrHDr Rhyolite Member - autobrecciated and flow banded rhyolite
JrHDd Dacite Flow Member - dacite flows, breccia and epiclastics
JrHDt Dacite Tuff Member - dacite tuffs and tuffaceous mudstones
BETTY CREEK FORMATION
JrHBu Treaty Ridge Member - mudstone, wacke, calcareous and fossiliferous wacke
JrHBt Blueback Lake Member - dacite tuff and epiclastic rocks
JrHBa Andesite Member - andesite breccia, flows and tuff
UNUK RIVER FORMATION (JACK FORMATION)
JrJ Undifferentiated conglomerate, sandstone and siltstone
INTRUSIVE UNITS
JrEf Eskay Creek Felsite (intrusive equiv. to JrHSr)
JrMf Mafic dyke or stock (intrusive equiv. to JrHSmv)
JrEm Eskay Porphyry/Monzodiorite
JrSd Mount Shirley Diorite
JrHd Harrymel Ridge Diorite
JrBg Bonsai Diorite/Gabbro
JrM Melville Pluton
TeL Lee Brandt Pluton
JrG John Peaks Gabbro
Jrd Undifferentiated diorite intrusives
2000 Drilling
1083
Eskay Creek
Mine Site
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Homestake Canada Inc.
Property Geology
Figure 2.21
Date 12/11/00
Author: J...
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Projection: UTM Zone 9 (NAD 83)
250 0 250 500
metres

## 2.4 Alteration

Three main types of alteration have been identified at Eskay Creek. These include K-feldspar, silica, and chlorite-sericite. All three occur predominantly within the Salmon River rhyolite that immediately underlies the Eskay deposits. Chlorite-sericite alteration forms pipes and halos immediately below the deposits. K-feldspar replaces primary plagioclase, in a km-scale halo around the deposits. Silica alteration is patchy throughout the rhyolite sequence. These types of alteration are not generally seen in any of the other rock types, even the mafic volcanics that immediately overlie the deposits.

Alteration in the overlying Bowser sedimentary rocks is essentially non-existent, other than minor epigenetic pyrite formation, locally.

## 2.5 Mineralization

Mineralization at Eskay Creek is found in two different environments:
1) stratiform, mudstone-hosted, clastic to massive lenses of sulphides and sulphosalts.
2) discordant vein and/or shear zone systems.

The stratiform mineralization is hosted in black carbonaceous of the Salmon River Formation ("Contact Mudstone") at the contact between the Eskay Rhyolite and the overlying mafic volcanic package. The main zone of mineralization, the 21B Zone, consists of stratiform clastic sulphide-sulphosalt beds, and forms a body roughly 900m long, 60 to 200m wide, and up to 15m thick. Individual clastic sulphide layers range from 1 cm to 50 cm thick. At the same stratigraphic horizon as the 21B Zone are the similar but smaller NEX and 21E Zones, the 21A Zone (characterized by As-Sb-Hg sulphides), and the barite-rich 21C Mud Zone. Stratigraphically above the 21B Zone, and usually above the first basaltic sill, the mudstones also host a local stratiform/stratabound body of base metal-rich, relatively precious metal-poor massive sulphides referred to as the Hanging Wall or HW Zone.

Stockwork and discordant mineralization at Eskay Creek is hosted in the footwall rhyolite in the Pumphouse, Pathfinder, 109 Zone, and 21C-Rhyolite Zones. The Pumphouse and Pathfinder Zones are characterized by base metal-rich veins and veinlets hosted in strongly sericitized and chloritized rhyolite. The 109 Zone comprises of gold-rich quartz-base metal associated with abundant carbonaceous material, hosted mainly in siliceous rhyolite. The 21C-Rhyolite Zone consists of very fine grained cryptic pyrite (with anomalous precious metal grades) in sericitized rhyolite shear zones.

Mineralization at surface on the IKS Property is non-existent, but the mine stratigraphy is present at depth, so potential for significant mineralization does exist. The northern-most portions of the underground workings at the Mine extends slightly onto the southern end of the 7166 Mining Lease, where the northern extent of known mineralization (NEX and HW Zones) is currently being defined.

# 3. Diamond Drilling

## 3.1 Overview

The 2000 Diamond Drilling Program on the IKS Property included two holes that were drilled between July 29th and October 4th, 2000 (see Figure 2.21 and Table 3.1 for locations and details). Drilling was completed by Hy-Tech Drilling Ltd. of Smithers, BC, using modified F-15 drill rigs that recover NQ2-sized core.

**Table 3.1: 2000 Drilling Summary**

| DDH | Azimuth | Dip | Length | Start Date | End Date |
|---|---|---|---|---|---|
| C00-1056 | 140° | -75° | 864.41m | 07/29/2000 | 08/21/2000 |
| C00-1083 | 180° | -88° | 1371.30m | 09/07/2000 | 10/04/2000 |
| | | *Total:* | *2235.71m* | | |

The purpose of the drilling was to identify new zones of stratiform mineralization hosted in mudstone, or possibly, discordant and/or disseminated mineralization hosted in the rhyolite.

A total of 20 core samples were collected for assay from prospective horizons. These core samples were analyzed at International Plasma Laboratory Ltd. of Vancouver, BC. Samples were crushed and split at the lab, and were analyzed for gold by fire assay with an AA finish on a 30 gram sample. Samples were also analyzed using Aqua-Regia digestion for a 30 element ICP scan.

Core recovered from the top of the two holes (in the thick Bowser Group cover rock) was logged at the drill site and is stored as flat stacks at a centralized location on the IKS Property. Core boxes containing Salmon River stratigraphy was flown out to the Homestake exploration camp (at km 45 of the mine road), where it was logged, sampled, and stored at the core storage facility at km 44 of the mine road.

## 3.2 Drilling Summary

***C00-1056***

Hole C00-1056 was located on the surface trace of the west limb of the Eskay Creek Anticline (a large, property-scale anticlinal structure), approximately 1km northwest of the mine. No drillhole data existed for this area, and C00-1056 was simply testing for the presence of the mine stratigraphy in this area.

The hole collared in a thick (~300m) sequence of Bowser pebble conglomerate, with local interbeds of sandstone and mudstone. This sequence is separated from another conglomerate-dominated sequence by a ~20m thick sandstone that commonly exhibits graded bedding (tops uphole). The lower conglomerate sequence is ~65m thick and grades downhole into a thick sequence of mudstones, siltstones, and fault zones. This 450m thick, finer grained package of Bowser sediments is characterized by relatively monotonous sequences of interbedded mud and silt, with local 1-10m thick fault zones that consist of broken/rubbly core and local gouge material. Salmon River stratigraphy was intersected at 832m downhole. Approximately 32m of interlayered mudstone and andesite flow breccias were intersected before deteriorating ground conditions further back uphole forced the abandonment of the hole.

The only mineralization of note in the hole consisted of a zone of moderate quartz-pyrite veining and/or flooding, over 5-7m, in a section of Bowser conglomerate, beginning at ~53m downhole. A 50cm grab sample returned 0.4 g/t Au. Mineralization of this (or any) sort in the Bowser package is very rare, and this 'zone' is likely limited in extent.

Hole C00-1056 unfortunately did not fully test the area for the presence of the mine stratigraphy, as only the upper contact of the hanging wall package was obtained. The high cost of drilling this type of hole, and the bad ground conditions precluded follow-up drilling.

***C00-1083***

Hole C00-1083 was collared approximately 1km directly north of the mine, and is also thought to be on the west limb of the Eskay Creek Anticline. The hole targeted an area with only limited drillhole data, and was targeting the mine stratigraphy at depth for the presence of mineralization and/or prospective alteration.

The hole collared in a relatively monotonous Bowser sequence of interbedded mudstone and siltstone, to a depth of ~229m. A thick package of coarser grained sediments then continues to a depth of ~492m. This coarse sequence consists of a 45m section of conglomerate, followed by a 55m section of sandstone, and a 160m thick conglomerate-dominated basal section. Below this coarse package, another monotonous section of interbedded mudstone and siltstone was encountered to a depth of ~876m. Salmon River stratigraphy was intersected at a depth of 878m. The upper 35m consists of a massive to laminated mudstone. This grades into a very thick andesite flow breccia sequence that continues to a depth of ~1361m. This anomalously thick hanging wall package is dominated by massive to brecciated andesite flows, separated by volumetrically minor interflow mudstone horizons. Immediately underlying this flow breccia sequence is a 1m thick mudstone-rhyolite transitional breccia that quickly grades into an autobrecciated rhyolite flow unit. The hole was terminated at a depth of 1371.30m.

No mineralization of interest was encountered in any portion of the hole, but sampling was undertaken in all of the mudstone horizons (or other units) that are host to mineralization elsewhere on the property. Only two samples returned Au concentrations significantly above detection levels. One sample in an andesite breccia at ~1263m returned 0.1 g/t Au, and a section of autobrecciated rhyolite at ~1370m returned 0.2 g/t Au. Neither of these anomalies are regarded as significant.

Hole C00-1083 was successful in confirming the presence of the mine stratigraphy in this area, but unsuccessful in locating any mineralization or alteration of interest.

## 4. Discussion and Conclusions

The Eskay Creek ore bodies are located immediately south of the IKS Property, and the trend of the mineralization projects northwards into the center of the property, but to date, no more mineralization of significance has been intersected north of the ore bodies currently being mined. Drilling in 2000 targeted two areas on the property that had relatively sparse drilling density. Two holes were drilled to test for the presence of the mine stratigraphy, and for the possible presence of mineralization related to the Eskay Creek hydrothermal system that produced the various ore bodies at the mine.

One of the two holes successfully intersected the mine stratigraphy, but the contact mudstone was essentially non-existent, and no mineralization or alteration was encountered. The other hole was lost high up in the hanging wall sequence due to ground conditions, and was therefore unable to test for the presence of the mine stratigraphy.

## 5. Recommendations

The IKS Property remains moderately to highly prospective despite the lack of encouraging results in 2000. Much of the property remains essentially untested, due to the high cost of drilling 'blindly' through the extensive Bowser cover rock. Further drilling should be completed on the property, for the length of the Mine life.

Surface mapping should continue on the property in advance of more drilling, in an attempt to define major structures in the Bowser that may mimic large structures in the more prospective Hazelton stratigraphy. Large anticlinal structures should be mapped out, as they may bring the Hazelton rocks closer to surface, thereby shortening the length of holes. Large scale faults, especially NE and NW directed ones, may also be important, as they may reflect deep crustal weakenings in the Hazelton package that could potentially be fluid conduits.

Drilling to the north of the current program remains highly prospective, but depth is becoming a concern. Hole C00-1083 did not intersect the mudstone/rhyolite contact zone until a depth of 1362m (4465 ft). Holes further to the north would be even deeper, making them a lower priority due to cost and logistics.

## 6. References

**Anderson, R.G.** 1989. A Stratigraphic, Plutonic, and Structural Framework for the Iskut River Map Area, NW BC. In: Current Research, Part E, GSC Paper 89-1E, p. 145-154.

**Anderson, R.G., and Thorkelson, P.J.** 1990. Mesozoic Stratigraphy and Setting of Some Mineral Deposits in the Iskut River Map Area, NW BC. In: Current Research, Part E, GSC Paper 90-1F, p. 131-139.

**Cunningham-Dunlop, I., et al.** 1999. Summary Report, Eskay Creek Project, 1998 Surface Exploration Program. Internal Report for Homestake Canada Inc.

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**Homestake Mining Company**. 2000. 1999 Annual Report, Homestake Mining Company.

**MacDonald A.J., et al.** 1996. Metallogeny of an Early to Middle Jurassic Arc, Iskut River Area, Northwestern British Columbia. Economic Geology, v. 91, p. 1098-1114.

**MDRU**. 1992. Metallogenesis of the Iskut River Area, Northwestern BC. Annual Technical Report – Year 2, June 1991-May 1992, Mineral Deposit Research Unit, University of British Columbia.

# Appendix 1:

# Statement of Costs

**HOMESTAKE CANADA INC**

## IKS Property Expenditures

Drill Hole **C00-1056** (July 29th to September 15th, 2000)

| PROJECT# | 90702 | TOTAL | $144,456.36 | | |
|---|---|---|---|---|---|
| DESCRIPTION | | AMOUNT | RATE ($) | NET($) | |
| SALARIES | | | | | |
| | **Technical (core logging, field work, etc)** | | | | |
| | I. Dunlop | 2 | 350 | 700 | |
| | D. Gale | 6 | 260 | 1560 | |
| | J.Lewis | 1 | 235 | 235 | |
| | **Technical (report writing, in Vancouver)** | | | | |
| | J. Lewis | 5 | 190 | 950 | |
| | | | | Subtotal | $3,445.00 |
| DRILLING | | | | | |
| | Drilling | | | 54739.18 | |
| | Materials | | | 36374.53 | |
| | Services (OFC) | | | 24040.75 | |
| | Services (NOFC) | | | 4575.00 | |
| | | | | Subtotal | $119,729.46 |
| HELICOPTER | | | | | |
| | Helicopter-full fare | 7.3 | 850 | 6205 | |
| | Helicopter-discount rate | 18.2 | 387.5 | 7053 | |
| | Fuel | 3264 | 0.85 | 2774 | |
| | | | | Subtotal | $16,031.90 |
| FIELD/CAMP | | | | | |
| | Lodging (geologists, 9 days | 9 | 50 | 450 | |
| | Lodging (4 drillers, 24 days | 96 | 50 | 4800 | |
| | | | | Subtotal | $5,250.00 |
| | | | | **TOTAL** | **$144,456.36** |

## HOMESTAKE CANADA INC

## IKS Property Expenditures

Drill Hole **C00-1083** (September 7th to October 4th, 2000)

| PROJECT# | 90702 | TOTAL | $186,770.05 | | |
|---|---|---|---|---|---|
| DESCRIPTION | | AMOUNT | RATE ($) | NET($) | |
| SALARIES | | | | | |
| | **Technical (core logging, field work, etc)** | | | | |
| | D. Gale | 7 | 260 | 1820 | |
| | **Technical (report writing, in Vancouver)** | | | | |
| | J. Lewis | 2 | 190 | 380 | |
| | | | | Subtotal | $2,200.00 |
| DRILLING | | | | | |
| | Drilling | | | 99536.50 | |
| | Materials | | | 27366.90 | |
| | Services (OFC) | | | 18726.31 | |
| | Services (NOFC) | | | 4012.50 | |
| | | | | Subtotal | $149,642.21 |
| HELICOPTER | | | | | |
| | Helicopter-full fare | 33.4 | 758.8 | 25344 | |
| | Fuel | 4275.2 | 0.85 | 3634 | |
| | | | | Subtotal | $28,977.84 |
| FIELD/CAMP | | | | | |
| | Lodging (geologists, 9 day | 7 | 50 | 350 | |
| | Lodging (4 drillers, 28 days | 112 | 50 | 5600 | |
| | | | | Subtotal | $5,950.00 |
| | | | | **TOTAL** | **$186,770.05** |

**NOTE:**

Total IKS Property expenditures total $331,226.41.

**$186,700.00** to be applied as assessment work to the claims, and the *balance* to Homestake Canada Inc account (P.A.C. No 141657)

# Appendix 2:

# Statement of Qualifications

## Statement of Qualifications

I, Jeffrey David William Lewis, of 3671 Pleasant Street, Richmond, BC, do hereby certify that:

1. I am a graduate of the University of British Columbia (1997), and hold a B.Sc. in Geology.

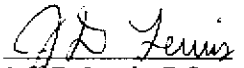
2. I have been practicing as a geologist for 10 years, in Canada and Europe.

3. I am presently employed by Homestake Canada Inc. of 1100-1055 West Georgia Street, Vancouver, British Columbia, as a geologist.

4. Portions of the work described in this report were undertaken by the author.

5. I do not have any direct or indirect interest in the IKS/SKI Property, nor do I expect to receive any in return for conducting the work or preparing this report.

Signed at Vancouver, British Columbia, on this, the 7th day of December, 2000.



Jeff D. Lewis, B.Sc.

## STATEMENT OF QUALIFICATIONS

I, David Gale, of 216 West 13th Ave, Vancouver, British Columbia, do hereby certify that:

1. I am presently employed by Homestake Canada Inc. of 1100-1055 West Georgia Street, Vancouver, British Columbia as a Geologist.

2. I graduated from Memorial University of Newfoundland, St. John's, Newfoundland (1994) and hold a B.Sc. (Honours) in geology.

3. I graduated from Queen's University, Kingston, Ontario (1997) and hold a M.Sc. in geology.

4. I have been employed in my profession as an Exploration Geologist since my graduation.

5. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I expect to acquire any such interest.

Signed at Vancouver, British Columbia, this 7th day of December, 2000.

David F.G. Gale, M.Sc.

# Appendix 3:

# Drill Hole Logs

HOMESTAKE CANADA

# DIAMOND DRILL HOLE LOG

C001056

| | | | |
|---|---|---|---|
| PROJECT: Eskay Creek Project | Date Commenced: 07/29/2000 | Contractor: HY-TECH | Logged by: IDDG |
| DRILL HOLE: C001056 | Date Completed: 08/21/2000 | | Geotech by: MCKD |
| LENGTH: 864.41 | Core Diam: NQ2 | | |

Collar Location

| | Exploration Grid | Mine (023) Grid |
|---|---|---|
| Northing: | 20221.49 | 11216.64 |
| Easting: | 21138.64 | 8967.16 |
| Elevation: | 1096.57 | 1096.57 |

## S U M M A R Y

| | |
|---|---|
| 0.00-3.66 | Casing |
| 3.66-294.90 | Bowser Conglomerate |
| 294.90-316.50 | Bowser Sandstone |
| 316.50-383.13 | Bowser Conglomerate |
| 383.13-472.06 | Bowser Laminated Mudstone |
| 472.06-473.96 | Mudstone Fault Zone |
| 473.96-482.50 | Bowser Laminated Mudstone |
| 482.50-483.72 | Mudstone Fault Zone |
| 483.72-560.80 | Bowser Laminated Mudstone |
| 560.80-561.89 | Bowser Interbedded Mud/Silt |
| 561.89-566.01 | Mudstone Fault Zone |
| 566.01-570.87 | Bowser Interbedded Mud/Silt |
| 570.87-581.46 | Mudstone Fault Zone |
| 581.46-589.52 | Bowser Laminated Mudstone |
| 589.52-600.15 | Mudstone Fault Zone |
| 600.15-608.34 | Bowser Laminated Mudstone |
| 608.34-621.88 | Bowser Interbedded Mud/Silt |
| 621.88-703.69 | Bowser Laminated Mudstone |
| 703.69-713.32 | Mudstone Fault Zone |
| 713.32-798.10 | Bowser Laminated Mudstone |
| 798.10-808.25 | Bowser Interbedded Mud/Silt |
| 808.25-820.22 | Bowser Laminated Mudstone |
| 820.22-826.43 | Mudstone Fault Zone |
| 826.43-829.03 | Bowser Laminated Mudstone |
| 829.03-832.00 | Mudstone Fault Zone |
| 832.00-851.72 | HW Laminated Mudstone |
| 851.72-855.15 | HW Andesite Breccia |
| 855.15-857.73 | HW Laminated Mudstone |
| 857.73-864.41 | HW Andesite Breccia |

DOWN HOLE SURVEYS

| Depth | Azim | Inclin | Mine Az | Method |
|---|---|---|---|---|
| 0.00 | 140.00 | -75.00 | 117.00 | ESTIMATE |
| 91.44 | 148.00 | -76.00 | 125.00 | SPERRY SUN |
| 182.88 | 154.00 | -76.50 | 131.00 | SPERRY SUN |
| 274.32 | 159.50 | -76.50 | 136.50 | SPERRY SUN |
| 365.76 | 171.00 | -75.00 | 148.00 | SPERRY SUN |
| 457.20 | 186.50 | -76.00 | 163.50 | SPERRY SUN |
| 548.64 | 184.50 | -76.00 | 161.50 | SPERRY SUN |
| 640.08 | 182.50 | -74.50 | 159.50 | SPERRY SUN |
| 731.52 | 188.00 | -76.50 | 165.00 | SPERRY SUN |
| 822.96 | 182.00 | -76.50 | 159.00 | SPERRY SUN |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 3.66 | Casing<br>The hole was going so well....<br><br>Aug 14, 10:00am: Trying to cement the hole at 548.64-618.74 and 300 feet from bottom which translates to 772.97-864.41.<br><br>Aug 14, after day shift: Rods are completely stuck in the drill hole. Here is an account of what happened.<br><br>Aug 13 day shift hit a void/vug that occured within a qtz vein, lost water pressure, and got the core tube stuck. Larry was forced to pull rods to get the core tube unstuck. Larry returned back down the hole and had to ream to bottom.<br><br>Night shift took over on 13th and when returning to same area, again lost water pressure and tube was stuck in rods a second time. Rods were pulled and then, apon returning to bottom, driller encountered sand and rubble app. 400 feet from bottom.<br><br>Day shift took over and managed to ream to about 3 feet off bottom and then the entire drill string got stuck! That's where we stand now and the plan is to blast at the bottom of the hole and hopefully free-up the rods.<br><br>Aug 17th: Blasting took place on Aug 15th and they could not blast at the very bottom because the detenator could not get a current down to the very bottom. They ended up blasting at 280 feet from bottom which translates to 779m.<br><br>They cemented an upper fault system; cemented from 548.64-616.74. The top 6-9 metres were mush but the rest was solid. The night driller on the 16th then greased the hole in preparation for placing the wedge down at 762 m (2500ft). The wedge is expected to be in place by late afternoon (Aug 17th).<br><br>Aug 18th: First attemp at placing the wedge, it got stuck at 140 feet. They removed it and then reamed down. Rods got stuck again close to bottom and they were tring to pull them out when they broke off below the foot clamp. While trying to tap the rods, the tap | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | broke loose and the drill string crashed a few hundred feet to the bottom. They were then able to re-tap the core string and pull all the rods out. They then went back down with the wedge and placed it at 2386 feet, which was only 114 feet above where we wanted it.<br><br>Then they proceeded down into the hole with a bullnose bit on to get passed the wedge. Close to bottom the entire sting got stuck once again. The rods then broke off again close to the top of the hole and numerous days were spent retrieving the rods. They were eventually retrieved and it was then realized that the bullnose bit had broken off and was in the hole somewhere above the wedge. At that point, the alternative was to place a second wedge above the bullnose bit and attempt the entire procedure once again or walk away. Due to the hole not being in very good shape it was decided that similar problems would be encountered if the former possibilty was attempted.<br><br>The hole was then pronounced dead. | | | | | | | | | | | |
| 3.66 | 294.90 | Bowser Conglomerate<br>Fine-coarse grained, gray, bedded, graded<br>bedding 45°<br>Frs=10/m ;Vns =5/m<br>10% silica alteration - pervasive<br>10% qz-carb veining - macroveins<br>2% pyrite - coatings<br>Interbedded sequence of conglomerate, f to cg sandstones,and local mudstones - 70/20/10 ratio; conglomerates are generally polymitic with mud clasts to 10 cm in size; often show good grading from sandstones to conlgomerates with tops uphole; local zones of blocky and broken core with minor sections of gouge; weak iron staining over top meter; scattered quartz-carbonate veins at 30-60 degrees to the core axis - average 5-10 per meter to 21.00 m with % dropping downhole; local pyrite to 2% found mainly on fractures in zones of broken core - typically at a low angle to the core axis. | 514747 | 59.50-60.00 | 0.50 | 0.4 | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bedding: poorly to moderately developed - well defined within the mudstone sections. | | | | | | | | | | | |
| | | 28.30 m: 65 degrees to the core axis<br>51.50 m: 60 degrees to the core axis<br>87.78 m: 64 degrees to the core axis<br>135.94 m: 58 degrees to the core axis<br>161.24 m: 30 degrees to the core axis<br>181.05 m: 45 degrees to the core axis<br>265.08 m: 30 degrees to the core axis<br>274.44 m: 30 degrees to the core axis | | | | | | | | | | | |
| | | Zones of interest: | | | | | | | | | | | |
| | | 3.66-4.57 m: section of rubby core with weak iron staining.<br>21.34-24.23 m: moderately to strongly broken core with local grey gouge at 60 degrees to the core axis; scattered anhedral pyrite grains to 1 cm in size along with fracture-controlled veins.<br>28.35-40.54 m: numerous mudstone layers.<br>34.75-40.84 m: strongly broken core with grey muddy fault gouge and local pyrite coating on fractures.<br>46.94-53.04 m: moderately to strongly broken core with local seams of grey/black fault gouge; scattered quartz-carbonate veins with % increasing towards the bottom of the unit; occasional thin pyrite fractures and veins - very strong over bottom 30 cm (20-30%).<br>70.87-75.44 m: numerous mudstone beds.<br>71.48-72.85 m: moderately to strongly broken core; no gouge; scattered pyrite veins.<br>77.42-190.96 m: transition into interbedded sandstone and conglomerate - ratio now 60/40; good grading downhole with occasional large mudstone clasts to 20 cm; rare mudstone beds.<br>86.26-87.48 m: strongly broken core with bands of grey/black fault gouge at 60-70 degrees to the core axis; weak pyrite.<br>100.28-101.80 m: weak to moderately broken core; 20 cm central zone of grey/black gouge at 50 degrees to the c/a;<br>weak pyrite.<br>131.67-132.59 m: shattered core.<br>156.36-163.83 m: local zones of broken core and gouge<br>170.38-173.13 m: moderately to strongly broken core; very minor gouge. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 190.96-261.82 m: transition into interbedded conglomerate and sandstone - ratio 80/20 with very rare mudstone beds up to 1.0 m in size; numerous large laminated mudstone clasts up to 20.0 cm in size throughout the unit; grades from f to cg sandstone at the start of the unit with very poorly defined bedding throughout the remainder of the section; weak quartz-carbonate veining associated with the intervals of mud - minor in the rest of the unit; trace pyrite.<br>238.51-239.27 m: strongly broken mudstone with grey muddy fault gouge; no veining; occasional fine hairline fractures parallel to the core axis.<br>261.38-262.75 m: strongly broken mudstone as above; no veining.<br>268.45-278.59m: broadly graded cgr sandstone, with angular mudstone shards. Unit is weakly graded from bottom to top, indicating tops uphole. | | | | | | | | | | | |
| 294.90 | 316.50 | Bowser Sandstone<br>Gray, bedded, graded<br>bedding 30°:bedding 40°<br>Frs=4/m :Vns =2/m<br>2% silica alteration - patches<br>1% qz veining - macroveins<br>4% qz-carb veining - macroveins<br>.1% pyrite - clasts<br>Sandstone-dominated interval, with lesser amounts of conglomerate and rare mudstone horizons.<br><br>Sandstone is locally fgr to cgr, and roughly graded (tops uphole).<br>Conglomerate is mgr, and hosts rare py clasts.<br>Mudstone beds, where present, define bedding (between 30-40 deg to CA).<br><br>Minor (3-4%) qtz and qtz-cb veining is present throughout the sequence, especially in the conglomerate and sandstone units. | | | | | | | | | | | |
| 316.50 | 383.13 | Bowser Conglomerate<br>Fine-coarse grained, gray, bedded, heterolithic<br>bedding 35°:bedding 50°<br>Frs=6/m :Vns =4/m<br>5% silica alteration - patches<br>1% qz veining - macroveins<br>3% qz-carb veining - macroveins<br>.1% pyrite - clasts | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bowser conglomerate, with volumetrically minor mudstone and sandstone horizons.<br><br>Cgl is generally cgr, with clasts ranging from granule to 15cm cobbles.<br>Clasts are dominated by subangular to rounded chert/qtz (55-60%) pebbles and cobbles up to 4-5cm in diam. Mud clasts (30-35%) are angular to subrounded, and can be up to 10-12cm in diam. Minor (5%) buff/tan/green/pink cherts and/or volcanic clast are also present, and can be up to 5cm in diam.<br><br>Bedding in the mud and sand horizons ranges between 35-50 deg to CA.<br><br>3-4% qtz-cb and qtz veining is present throughout the interval. | | | | | | | | | | | |
| 383.13 | 472.06 | Bowser Laminated Mudstone<br>Dark black, bedded, laminated<br>bedding 45°:bedding 37°<br>Frs=2/m :Vns =0.2/m<br>1% silica alteration - vein<br>0.5% qz veining - macroveins<br>0.1% pyrite - vein<br>Siliceous mudstone with 15-20% siltstone beds that are typically 0.5-1 cm thick. Bedding is constant thr'out interval and numerous examples of fining upwards are observed.<br><br>416-425: siltstone beds increase to 50-60%.<br><br>408.27: bedding 45 degrees to core axis<br>433.85: bedding 37 degrees to core axis<br><br>441.80: 1 cm wide pyrite vein. Coarse grained euhedral pyrite xtls in the vein. Vein cross-cuts bedding.<br><br>441.25-468.95: Zone of broken core and qtz veining.<br><br>456.29-468.17: Qtz veining increases to 1-1.5 % of interval and core is weakly to moderately broken. Veining ends abruptly at 468.17 and veins average 0.2-0.4 cm thick. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 472.06 | 473.96 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>bedding 45°<br>Frs=10/m :Vns =7/m<br>2% silica alteration - vein<br>1.5% qz veining - macroveins<br>Badly broken core with 20% gouge. | | | | | | | | | | | |
| 473.96 | 482.50 | Bowser Laminated Mudstone<br>Dark black, bedded, graded<br>bedding 45°<br>Frs=4/m :Vns =0.3/m<br>0.3% qz veining - macroveins<br>Same as BMLM above but rock consists of only 10% siltstone. | | | | | | | | | | | |
| 482.50 | 483.72 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>Frs=15/m<br>0.2% qz veining - macroveins<br>Fractured and broken core with 5-10% gouge. Rock is laminated mudstone, same as above with minor siltstone beds. | | | | | | | | | | | |
| 483.72 | 560.80 | Bowser Laminated Mudstone<br>Dark black, laminated, graded<br>bedding 40°<br>0.1% pyrite - laminations<br>Laminated mudstone with siltstone horizons comprising 20% of the rock. Silstone beds are typically 0.5 cm thick.<br><br>Very monotonous sequence of mudstones.<br><br>537.0m: 1.5 cm thick pyrite bed. Pyrite is very fine grained and is parallel to bedding thr'out interval. | | | | | | | | | | | |
| 560.80 | 561.89 | Bowser Interbedded Mud/Silt<br>Black, bedded, graded<br>bedding 45°<br>Frs=2/m :Vns =1/m<br>0.3% qz veining - macroveins<br>Intercalculated mudstone and siltstone, alternation on the 1.2 cm scale. It almost has the appearence of a rhythmically laminated turbidite. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 561.89 | 566.01 | Mudstone Fault Zone<br>Dark black, broken, veined<br>Frs=20/m :Vns =2/m<br>2% qz veining - macroveins<br>Broken core without fault gouge. Qtz veining increases to 1-1.5%. | | | | | | | | | | | |
| 566.01 | 570.87 | Bowser Interbedded Mud/Silt<br>Black, bedded, graded<br>bedding 45°<br>Frs=2/m :Vns =1/m<br>0.3% qz veining - macroveins<br>BSIB same as above. | | | | | | | | | | | |
| 570.87 | 581.46 | Mudstone Fault Zone<br>Black, broken, gouge<br>Frs=20/m :Vns =6/m<br>0.3% qz veining - macroveins<br>Badly broken core with 5% gouge. 0.3% qtz vein flooding. | | | | | | | | | | | |
| 581.46 | 589.52 | Bowser Laminated Mudstone<br>Black, bedded, graded<br>bedding 55°<br>Laminated siliceous mudstone, same as above. | | | | | | | | | | | |
| 589.52 | 600.15 | Mudstone Fault Zone<br>Black, broken, gouge<br>bedding 50°<br>Frs=20/m :Vns =6/m<br>0.5% qz veining - macroveins<br>Zone of badly broken core with 5-10% of gouge. 20% of faulted interval consists of small 0.2-0.4 rounded mudstone grains.<br><br>Interval of faulting is not continuous; 20-30% of zone is comprised of unfaulted BMLM. | | | | | | | | | | | |
| 600.15 | 608.34 | Bowser Laminated Mudstone<br>Dark black, laminated<br>bedding 55° | | | | | | | | | | | |
| 608.34 | 621.88 | Bowser Interbedded Mud/Silt<br>Fine-coarse grained, grayish-black, laminated, graded<br>bedding 50°<br>Frs=2/m :Vns =1/m | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.2% qz veining - microveins<br>Rythmically laminated siltstone and mudstone, alternating on the 2-3 cm scale. 45-50% siltstone; typically sharp contacts.<br><br>Cross bedding observed within hole that suggests tops up. | | | | | | | | | | | |
| 621.88 | 703.69 | Bowser Laminated Mudstone<br>Dark black, laminated, graded<br>Same as above units. Sst app. 20% and forms 0.5-1cm thick beds.<br><br>624.23-632.5: Qtz veining increases to 3-4%.<br><br>635.62-646.42: Qtz veining, up to 15-20% of rock and forms stockwork. It has 5% gouge.<br><br>646.85: Py bed 1 cm thick.<br><br>663.46-664.52: Gouge Zone with mudstone; only 15% solid core.<br><br>Locally, the siltstone component increases to 40% over 5-7 m long intervals.<br><br>682.62-684.23: Fault zone with 4-7% qtz veining.<br><br>694.68: Py bed. | | | | | | | | | | | |
| 703.69 | 713.32 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>Frs=20/m :Vns =20/m<br>15% qz veining - microveins<br>2% carbonate veining - microveins<br>Badly broken zone of qtz flooding, gouge and minor Fe-Carb veining.<br><br>10% fault gouge. | | | | | | | | | | | |
| 713.32 | 798.10 | Bowser Laminated Mudstone<br>Dark black, graded, bedded<br>bedding 40°<br>Frs=3/m :Vns =2/m<br>0.3% qz veining - microveins | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10% siltstone.<br><br>735.0-743.72: 2% spidery qtz veins networking through the core.<br><br>743.72: bedding is 13 degrees to core axis.<br><br>767.17: 4 pyrite beds 15 cm apart and parallel to bedding<br><br>794.98-798.10: Qtz flooding increases to 25-30% | | | | | | | | | | | |
| 798.10 | 808.25 | Bowser Interbedded Mud/Silt<br>Grayish-black, bedded, graded<br>bedding 75°<br>Frs=2/m :Vns =12/m<br>2% qz veining - macroveins<br>Alternating beds of siltstone and mudstone. Sst comprises app. 70-80% of rock and consists of alternating light and dark bands mixed with mudstone. | | | | | | | | | | | |
| 808.25 | 820.22 | Bowser Laminated Mudstone<br>Dark black, graded, laminated<br>bedding 27°<br>Frs=4/m :Vns =2/m<br>0.3% qz veining - microveins<br>0.1% pyrite - laminations<br>817.58-818.53: GMFZ:Broken core and fault gouge without qtz veining. | | | | | | | | | | | |
| 820.22 | 826.43 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>bedding 85°<br>:Vns =3/m<br>1% qz-carb veining - macroveins<br>Badly broken core and fault gouge. 30-40% fault gouge thr'out interval. Extensive graphite on broken surfaces.<br><br>Recognizable pieces of core contain rare pyrite beds. | | | | | | | | | | | |
| 826.43 | 829.03 | Bowser Laminated Mudstone<br>Dark black, graded, laminated<br>bedding 65°<br>Frs=10/m :Vns =3/m<br>0.5% qz veining - microveins<br>0.5% pyrite - laminations | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Siltstone beds 0.5-1 cm thick, interbedded with siliceous mudstone. Interval is moderately broken. Only rare pyrite beds within this interval. | | | | | | | | | | | |
| 829.03 | 832.00 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>bedding 65°<br>Frs=30/m :Vns =4/m<br>1% qz veining - microveins<br>0.4% pyrite - laminations<br>Same as above unit. Extensively broken core with gouge present throughout. | | | | | | | | | | | |
| 832.00 | 851.72 | HW Laminated Mudstone<br>Dark black, laminated, graded<br>bedding 70°<br>Frs=2/m :Vns =2/m<br>0.3% qz-carb veining - microveins<br>3% pyrite - laminations<br>Well laminated siliceous mudstone. Abundent py. beds,0.5-1 cm thick.<br><br>835.63-836.50: Massive fluorescent-light-bulb coloured calcite vein.<br><br>Sections with hydrothermally brecciated mudstone fragments within calcite occur surrounding the massive vein. | | | | | | | | | | | |
| 851.72 | 855.15 | HW Andesite Breccia<br>Fine-coarse grained, dark green, fragmental<br>Frs=1/m :Vns =3/m<br>0.3% carbonate veining - macroveins<br>0.5% pyrite - matrix<br>Angular andesite fragments within a calcareous mudstone matrix. Frag's average 1-10 cm in size and comprise 75-85% of interval. Frag's are all aphanitic. | | | | | | | | | | | |
| 855.15 | 857.73 | HW Laminated Mudstone<br>Whiteish-black, veined, brecciated<br>bedding 75°<br>Frs=2/m :Vns =15/m<br>15% carbonate veining - macroveins<br>3% pyrite - laminations<br>Hydrothermally brecciated hanging-wall mudstone. Pyrite laminated mudstone fragments within a calcite matrix. Frag's are 1-4 cm in size | 513849 | 856.51-857.73 | 1.22 | 0.1 | 4 | 0.01 | 0.10 | 0.01 | 0.01 | 3 | 0.01 |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 70% of interval is brecciated. Remainder of unit is same as HMLM above. Upper 50cm is all fault gouge. | | | | | | | | | | | |
| 857.73 | 864.41 | HW Andesite Breccia<br>Fine-coarse grained, dark green, brecciated<br>Brecciated to locally massive andesite. Andesite clasts occur within a black mudstone matrix. Clasts are angular and highly variable in size; ranging from sub-mm to 12 cm. Interval consists of 50-60% large angular fragments, surrounded by 1-4 cm fragments in a calcareous mudstone.<br><br>Interval is moderately broken but without fault gouge.<br><br>860.75-861.80: broken vuggy quartz. Upper and lower contacts are broken. This is the interval that caused the core tube to get stuck.<br><br>EOH. | | | | | | | | | | | |
| (eoh) | | | | | | | | | | | | | |

11/02/00

HOMESTAKE CANADA

# DIAMOND DRILL HOLE LOG

C001083

| | | | |
|---|---|---|---|
| PROJECT: Eskay Creek Project | Date Commenced: 09/07/2000 | Contractor: HY-TECH | Logged by: DG |
| DRILL HOLE: C001083 | Date Completed: 10/04/2000 | | Geotech by: SG |
| LENGTH: 1371.30 | Core Diam: NQ2 | | |

**Collar Location**

| | Exploration Grid | Mine (023) Grid |
|---|---|---|
| Northing: | 20759.47 | 12040.00 |
| Easting: | 21978.45 | 9530.00 |
| Elevation: | 854.00 | 854.00 |

## SUMMARY

| | |
|---|---|
| 0.00-4.57 | Casing |
| 4.57-138.99 | Bowser Interbedded Mud/Silt |
| 138.99-206.65 | Bowser Laminated Mudstone |
| 206.65-212.17 | Mudstone Fault Zone |
| 212.17-227.23 | Bowser Interbedded Mud/Silt |
| 227.23-229.02 | Mudstone Fault Zone |
| 229.02-246.75 | Bowser Conglomerate |
| 246.75-255.26 | Bowser Interbedded Mud/Silt |
| 255.26-257.97 | Bowser Conglomerate |
| 257.97-276.58 | Mudstone Fault Zone |
| 276.58-279.77 | Bowser Sandstone |
| 279.77-281.61 | Mudstone Fault Zone |
| 281.61-300.40 | Bowser Sandstone |
| 300.40-307.95 | Mudstone Fault Zone |
| 307.95-332.99 | Bowser Sandstone |
| 332.99-357.53 | Bowser Conglomerate |
| 357.53-359.28 | Fault Gouge |
| 359.28-368.34 | Bowser Conglomerate |
| 368.34-373.90 | Mudstone Fault Zone |
| 373.90-390.02 | Bowser Conglomerate |
| 390.02-396.49 | Mudstone Fault Zone |
| 396.49-483.26 | Bowser Conglomerate |
| 483.26-487.31 | Bowser Laminated Mudstone |
| 487.31-491.82 | Bowser Conglomerate |
| 491.82-551.57 | Bowser Interbedded Mud/Silt |
| 551.57-875.78 | Bowser Laminated Mudstone |
| 875.78-878.00 | Mudstone Fault Zone |
| 878.00-912.27 | HW Laminated Mudstone |
| 912.27-962.24 | HW Pillowed Andesite Flow |
| 962.24-980.84 | HW Andesite Flow |
| 980.84-999.44 | HW Pillowed Andesite Flow |
| 999.44-1108.18 | HW Andesite Breccia |
| 1108.18-1123.03 | HW Pillowed Andesite Flow |
| 1123.03-1147.70 | HW Andesite Breccia |
| 1147.70-1158.78 | HW Pillowed Andesite Flow |
| 1158.78-1210.50 | HW Andesite Breccia |

## DOWN HOLE SURVEYS

| Depth | Azim | Inclin | Mine Az | Method |
|---|---|---|---|---|
| 0.00 | 180.00 | -88.00 | 157.00 | ESTIMATE |
| 6.10 | 204.00 | -85.60 | 181.00 | SPERRY SUN |
| 91.44 | 215.50 | -86.00 | 192.50 | SPERRY SUN |
| 182.88 | 219.50 | -86.50 | 196.50 | SPERRY SUN |
| 274.32 | 223.00 | -86.50 | 200.00 | SPERRY SUN |
| 365.76 | 223.00 | -85.00 | 200.00 | SPERRY SUN |
| 457.20 | 223.00 | -86.00 | 200.00 | SPERRY SUN |
| 548.64 | 231.00 | -84.50 | 208.00 | SPERRY SUN |
| 640.08 | 236.50 | -85.00 | 213.50 | SPERRY SUN |
| 731.52 | 244.00 | -83.00 | 221.00 | SPERRY SUN |
| 822.96 | 238.00 | -84.00 | 215.00 | SPERRY SUN |
| 914.40 | 223.00 | -81.50 | 200.00 | SPERRY SUN |
| 1005.84 | 224.00 | -82.00 | 201.00 | SPERRY SUN |
| 1097.28 | 225.50 | -83.50 | 202.50 | SPERRY SUN |
| 1188.72 | 226.50 | -82.00 | 203.50 | SPERRY SUN |
| 1280.16 | 249.50 | -83.50 | 226.50 | SPERRY SUN |
| 1371.30 | 240.00 | -83.00 | 217.00 | SPERRY SUN |

| | |
|---|---|
| 1210.50-1237.31 | HW Andesite Flow |
| 1237.31-1251.83 | HW Andesite Breccia |
| 1251.83-1260.73 | HW Andesite Flow |
| 1260.73-1262.64 | HW Laminated Mudstone |
| 1262.64-1270.93 | HW Andesite Breccia |
| 1270.93-1271.95 | HW Laminated Mudstone |
| 1271.95-1309.68 | HW Andesite Breccia |
| 1309.68-1318.20 | HW Andesite Flow |
| 1318.20-1357.82 | HW Andesite Breccia |
| 1357.82-1361.45 | HW Andesite Flow |
| 1361.45-1362.35 | Contact Mud Matrix Rhy Breccia |
| 1362.35-1371.30 | Autobrecciated Rhyolite Flow |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 4.57 | Casing<br>Cemented 170.38-200.86m to stablize lost bit.<br>*Cemented 179.53-225.24m due to bad ground.* | | | | | | | | | | | |
| 4.57 | 138.99 | Bowser Interbedded Mud/Silt<br>Gray<br>Frs=8/m<br>60% sandstone or siltstone 40% laminated mudstone.<br>Sandstone coarse, locally grading into fine pebble conglomerate with sandstone matrix. Few mudstone clasts in coarser beds.<br>Few fract zones.<br>Locally randomly oriented quartz veins, up to 5%.<br>Rare 5cm fractured with quartz infill.<br>12.59-14.50m Fracture zone, up to 20 fract/m, 2-5cm rubbly zone.<br>37.51-38.01m Graphtic, crumbly core. 50 fract/m.<br>47.25m 5cm rubble.<br>70.03-74.11m Fracture zone, 15-30 fract/m. Rubble zone <50cm.<br>78.00-86.95m Broken, 5-15 fract/m. Minor gravel. 5cm of weak clay and sericite alteration.<br>105.87m 50 cm zone graphitic, 5% carbonate veining, 10 *fract/m, minor (2mm) graphitic gouge.*<br>122.41m Load structures indicate tops up.<br>127.81 Bedding 50 deg to ca.<br>127.81-129.53m Broken rubbly 10-40 fract/m.<br>138.98m 20% siltstone.<br>6-10 fract/m. | | | | | | | | | | | |
| 138.99 | 206.65 | Bowser Laminated Mudstone<br>Dark gray<br>20% siltstone.<br>153.49m Bedding 40 deg to ca. Cross-bedding indicates tops uphole and down hole - wave base.<br>148.91m pyritic belemnite.<br>154.82-171.78m 10-20 fract/m, 60% sandstone. 162.79m 5cm clayey rubble in sandstone.<br>169.20m 25cm broken angular core, rubbly.<br>171.13m 1cm gouge.<br>174.41-176.31m Matrix supported, poorly sorted pebble conglomerate. Pebbles <1cm-4cm, quartz and mudstone | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | pebbles, rounded to sub-rounded.<br>188.59m Bedding 50 deg to ca.<br>189.88-190.78m Rubbly, broken mudstone. 30cm of gouge.<br>195.11m Broken angular core, 30 fract/m.<br>196.00m Bedding 55 deg to ca.<br>Local beds of coarse grained sandstone.<br><br>203.55-203.70: mixture of badly broken core and fault gouge. | | | | | | | | | | | |
| 206.65 | 212.17 | Mudstone Fault Zone<br>Black, broken, gouge<br>Badly broken core with fault gouge and 5% sand. No significant veining. | | | | | | | | | | | |
| 212.17 | 227.23 | Bowser Interbedded Mud/Silt<br>Gray, laminated, graded<br>bedding 52°<br>Frs=6/m :Vns =1/m<br>0.3% qz veining - microveins<br>Poorly bedded siltstone mixed with laminated mudstone. Siltstone forms 1-3m long intervals. | | | | | | | | | | | |
| 227.23 | 229.02 | Mudstone Fault Zone<br>Dark gray, broken, gouge<br>Broken siltstone and 10-15% fault gouge. | | | | | | | | | | | |
| 229.02 | 246.75 | Bowser Conglomerate<br>Fine-coarse grained, gray, massive, heterolithic<br>bedding 45°<br>Frs=5/m :Vns =10/m<br>1.5% qz veining - macroveins<br>Matrix supported, unbedded conglomerate. Clasts are typically 0.5-1 cm in dia., comprise 20-40% of the rock and are well rounded.<br><br>Clasts: 55% mudstone; 40% qtz; 3% beige fine grained volcanic fragments. | | | | | | | | | | | |
| 246.75 | 255.26 | Bowser Interbedded Mud/Silt<br>Gray, laminated, graded<br>bedding 39°<br>Frs=2/m :Vns =1/m<br>0.3% qz veining - microveins<br>Same as BSIB above. Siltstone mud changes on the 0.50-1 metre scale. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 255.26 | 257.97 | Bowser Conglomerate<br>Fine-coarse grained, dark gray, massive, heterolithic<br>Same as above but slightly more clasts; 50-60% clasts<br>so weakly clast supported. | | | | | | | | | | | |
| 257.97 | 276.58 | Mudstone Fault Zone<br>Broken, gouge | | | | | | | | | | | |
| 276.58 | 279.77 | Bowser Sandstone<br>Fine-coarse grained, gray, massive<br>Frs=10/m :Vns =2/m<br>Unbedded sandstone. | | | | | | | | | | | |
| 279.77 | 281.61 | Mudstone Fault Zone<br>Dark black, broken, gouge<br>Broken zone of core with only 1 cm rock chips<br>preserved. | | | | | | | | | | | |
| 281.61 | 300.40 | Bowser Sandstone<br>Fine-medium grained, gray, massive<br>bedding 40°<br>Frs=5/m<br>BSSS same as above. Bedding is absent within<br>sandstone. Bedding observed within 5-10 cm thick<br>mudstone beds that comprise 0.5% of the rock.<br><br>290.52-294.00: Badly broken zone. | | | | | | | | | | | |
| 300.40 | 307.95 | Mudstone Fault Zone<br>Dark gray, broken, gouge<br>30-40% gouge. very badly broken core. Rock was<br>originally 50% sandstone, 40% mudstone, and 10%<br>conglomerate. | | | | | | | | | | | |
| 307.95 | 332.99 | Bowser Sandstone<br>Fine-medium grained, gray, massive<br>bedding 41°<br>Frs=3/m :Vns =8/m<br>0.4% qz veining - microveins<br>No internal bedding. Mudstone horizons appear to take<br>up the strain and are spatially associated with the<br>deformation zones.<br><br>313.10-314.64; 322.11-322.78: Badly broken and gouged. | | | | | | | | | | | |
| 332.99 | 357.53 | Bowser Conglomerate | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Fine-coarse grained, gray, graded, bedded*<br>bedding 35°<br>Well rounded qtz and mudstone clasts averaging 0.5-1 cm in size and comprising 70-90% of the rock. Clasts occur within a sandstone matrix.<br><br>10-40cm thick mudstone beds occur randomly thr'out BDCG and are well laminated. These beds typically are deformed to broken core +/- gouge.<br><br>at 344 the conglomerate fines to 0.3-0.5 cm size clasts, mixed with sandstone and mudstone.<br><br>378.79-340.63: Broken and gouged. | | | | | | | | | | | |
| 357.53 | 359.28 | Fault Gouge<br>Dark gray, gouge, broken<br>Gouge zone within BDCG. 80% of interval is gouge, rest is broken core. | | | | | | | | | | | |
| 359.28 | 368.34 | Bowser Conglomerate<br>Fine-coarse grained, gray, bedded, graded<br>Frs-15/m<br>Mixture of BDCG and sandstone, same as lower portion of cong. above.<br><br>10-20 cm thick gouge zones comrise 3-5% of interval.<br><br>This entire zone is moderately broken. | | | | | | | | | | | |
| 368.34 | 373.90 | Mudstone Fault Zone<br>Dark gray, broken, gouge<br>Badly broken and 10% gouge. Mostly BDCG as the original protolith. | | | | | | | | | | | |
| 373.90 | 390.02 | Bowser Conglomerate<br>Fine-coarse grained, gray, heterolithic, graded<br>Highly variable unit that consists of 60-70% conglomerate with 1-2 m thick BMLM, BSIB, and BSSS.<br><br>BDCG: Clasts are 0.3-0.6 cm in dia, 50/50% mudstone and qtz with trace andesite and emerald green fragments. Clasts comprise 80% of rock.<br><br>*Numerous examples of grading thr'out.* | | | | | | | | | | | |
| 390.02 | 396.49 | Mudstone Fault Zone | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fine-coarse grained, gray, broken, gouge<br>Frs=15/m :Vns =5/m<br>1% qz-carb veining - macroveins<br>Fault within conglomerate,10-15% fault gouge. | | | | | | | | | | | |
| 396.49 | 483.26 | Bowser Conglomerate<br>Fine-coarse grained, gray, heterolithic, graded<br>bedding 31°:bedding 47°<br>Clasts coarsen to 1-2.5 cm., are well rounded and comprise 70-80% of the rock. Mudstone to sandstone forms 1-2 m long sections. Interval is 65% cong., 25% sand, and remainder mud.<br><br>471.14-478.11: 10 frac and 20 qtz veins/m. | | | | | | | | | | | |
| 483.26 | 487.31 | Bowser Laminated Mudstone<br>Fine-coarse grained, gray, laminated, graded<br>bedding 42°<br>BMLM with 5% slst defining bedding. | | | | | | | | | | | |
| 487.31 | 491.82 | Bowser Conglomerate<br>Fine-coarse grained, gray, heterolithic, graded<br>BDCG, same as above. | | | | | | | | | | | |
| 491.82 | 551.57 | Bowser Interbedded Mud/Silt<br>Fine-coarse grained, gray, graded, laminated<br>bedding 42°:bedding 38°<br>Siltstone +/- sandstone is forming 10 cm to 1 m long intervals and comprises 40-50% of the core. Slst beds average 10 cm thick. | | | | | | | | | | | |
| 551.57 | 875.78 | Bowser Laminated Mudstone<br>Black, bedded, graded<br>bedding 40°:bedding 60°<br>Frs=3/m :Vns =1/m<br>1-3 cm thick siltstone horizons comprising 20-30% of the core.<br><br>605.94-607.35m: Broken core - 25 fract/m<br>638.89-640.08m: Broken core - 20 fract/m<br>654.19-656.23m: Broken core plus minor gouge - 20 fract/m<br>658.15-659.28m: Broken core - 15 fract/m<br>758.95-778.50m: Broken core with trace gouge - 25 fract/m<br>811.94-929.76m: Broken with trace gouged sections. 8 | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | qtz/m and 10 frac/m.<br>839.50-841.61m: 20 frac/m and 3-4% gouge.<br>843.50-847.53m: Broken core with 12 frac/m.<br><br>868.41-875.78: This lowermost zone is flooded with qtz veins; app. 30/m. Core is broken into 5-10 cm long peices but overall, the transition zone is unfaulted with only trace gouge.<br><br>Bedding core angles:<br><br>552.00m: 39 degrees<br>655.18m: 40 degrees<br>584.99m: 38 degrees<br>612.34m: 40 degrees<br>630.14m: 34 degrees<br>669.25m: 36 degrees<br>691.52m: 40 degrees<br>745.79m: 40 degrees<br>767.86m: 50 degrees<br>795.71m: 60 degrees<br>804.46m: 39 degrees<br>819.59m: 29 degrees<br>863.31m: 50 degrees | | | | | | | | | | |
| 875.78 | 878.00 | Mudstone Fault Zone<br>Whiteish-black, broken, veined<br>Frs=20/m :Vns =30/m<br>20% qz veining - macroveins<br>Broken mudstone with qtz veins flooding the interval.<br>Almost no gouge within this transition zone.<br><br>Trace pyrite beds occur within the rock. | | | | | | | | | | | |
| 878.00 | 912.27 | HW Laminated Mudstone<br>Black, laminated<br>bedding 50°<br>Frs=1/m :Vns =1/m<br>0.1% qz veining - microveins<br>2% pyrite - laminations<br>Pyrite laminated siliceous mudstone. Pyrite beds are 0.2-1 cm thick and vary from 0.5-3% of interval.<br><br>878.89-880.23: Qtz flooding associated with the Bowser-Salmon River contact.<br><br>883.62-885.76: Qtz flooded and wkly to mod'ly broken. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 912.27 | 962.24 | HW Pillowed Andesite Flow<br>Grayish-green, flow-brecciated, amygdaloidal<br>Frs=2/m :Vns =3/m<br>0.3% carbonate veining - macroveins<br>0.2% pyrrhotite - interstitial<br>Pillows are typically 20-100 cm in size (average: 20-30cm) and have fine grd amygdaloidal selvages. Mudstone horizons occur every 1-3 m and mark interflow regions. These mudstone sections are only 20-40 cm thick and have broken to amoeboid andesite.<br><br>924.14-931.12: Brecciated andesite consisting of hyaloclasite and flow brecciated fragments.<br><br>Min: Trace pyrr. occurs at the pillow contacts. | | | | | | | | | | | |
| 962.24 | 980.84 | HW Andesite Flow<br>Fine-coarse grained, grayish-green, flow-brecciated<br>Frs=2/m :Vns =3/m<br>0.4% carbonate veining - macroveins<br>Medium to coarse grained andesite flows with 20-40cm thick intervening flow brecciated intervals.<br><br>The brecciated sections occur within a mudstone to andesite hyaloclastite matrix.<br><br>70% massive andesite - 30% broken and brecciated andesite. | | | | | | | | | | | |
| 980.84 | 999.44 | HW Pillowed Andesite Flow<br>Fine-coarse grained, dark green, flow-brecciated, pillowed<br>Frs=1/m :Vns =2/m<br>0.2% carbonate veining - macroveins<br>0.2% pyrrhotite - disseminated<br>10-20 cm sized pillows with brecciated andesite and massive mudstone. Interval consists of 50-60% of pillows, with the rest a mixture of broken andesite and massive mudstone.<br><br>Brecciated andesite is typically angular and 1-5 cm sized fragments.<br><br>Min: Trace pyrr needles occurs within the mudstone. | | | | | | | | | | | |
| 999.44 | 1108.18 | HW Andesite Breccia<br>Fine-coarse grained, grayish-green, brecciated, fragmental | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Frs=1/m :Vns =2/m<br>0.2% carbonate veining - macroveins<br>0.5% pyrrhotite - matrix<br>Poorly sorted andesite breccia. Fragments are angular, are 0.3-8 cm in size but average 1-3cm, comprise 20-70% of interval but average 55-65% and exhibit no grading thr'out interval. They occur within a fine calcite to andesitic ash to mudstone matrix. Fragments are typically fine grained, some have amyg'ls on the margins and rare clasts have a porphyritic texture. Rare 10-15cm dia. pillows occur randomly throughout the breccia<br><br>Breccia is essentially monolithic; very rare mudstone clasts occur randomly.<br><br>1078-1108.07: Pillows become more abundent, comprising 30-40% of the core. Pillows are typicaly broken and some have a jigsaw piece texture.<br><br>Min: Trace pyrr occurs within the matrix. | | | | | | | | | | | |
| 1108.18 | 1123.03 | HW Pillowed Andesite Flow<br>Fine-coarse grained, grayish-green, auto-brecciated, fragmental<br>Frs=2/m :Vns =3/m<br>0.4% carbonate veining - macroveins<br>Pillowed andesite with pillow breccia. 60-70% of this interval consists of cohesive to wk'ly broken pillows that have amygdaloidal selvages. Pillows are typically 10-30 cm in dia. Jigsaw-piece puzzle texture within some of the pillows that grades into an andesite breccia with 0.5-4 cm sized angular fragments.<br><br>No alt'n or min'n. | | | | | | | | | | | |
| 1123.03 | 1147.70 | HW Andesite Breccia<br>Fine-coarse grained, grayish-green, brecciated, fragmental<br>Same as HABR at 999.44.<br><br>No mineralization or alteration. | | | | | | | | | | |
| 1147.70 | 1158.78 | HW Pillowed Andesite Flow<br>Fine-coarse grained, grayish-green, auto-brecciated, fragmental<br>Same rock that was intersected starting at 1108.18.<br><br>Pillows are 20-60 cm in dia and comprise 70% of the | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | interval.<br><br>Contact with overlying brecciated andesite is gradational. | | | | | | | | | | | |
| 1158.78 | 1210.50 | HW Andesite Breccia<br>Fine-coarse grained, grayish-green, brecciated, fragmental<br>Frs=1/m :Vns =3/m<br>0.5% carbonate veining - macroveins<br>Same as the andesite breccia intersected at 999.44.<br><br>Clasts occur with a calcite rich, hyaloclastite matrix, are angular, and are 0.3-6 cm in dia.<br><br>No mineralization or alteration. | | | | | | | | | | | |
| 1210.50 | 1237.31 | HW Andesite Flow<br>Fine-coarse grained, grayish-green, flow-brecciated, hyaloclastic<br>Frs=1/m :Vns =4/m<br>0.4% carbonate veining - macroveins<br>Mainly massive andesitic flows with pillows and interflow hyaloclastite.<br><br>The massive flows are typically 20-70 cm thick and are interlayered with pillows with similar dia that have amyg'al selvages. These massive andesite sections have 10-20 cm thick brecciated andesite mixed with hyaloclastite separeting individual flows and pillows.<br><br>No mineralization and no alteration. | | | | | | | | | | | |
| 1237.31 | 1251.83 | HW Andesite Breccia<br>Fine-coarse grained, grayish-green, hyaloclastic, fragmental<br>Frs=2/m :Vns =2/m<br>0.2% pyrrhotite - clasts<br>Very similar to overlying brecciated andesite units but the angular clasts are typically smaller, averaging 1-2.5 cm with abundent sections of hyaloclastite.<br><br>5-10% of the interval consists of 5-10 cm dia pillows with amygdaloidal selvages.<br><br>No grading or sorting evident within this interval.<br><br>Pyrr occurs in trace amounts within some of the hyaloclastite breccia material. | | | | | | | | | | | |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1251.83 | 1260.73 | HW Andesite Flow<br>Grayish-green, flow-brecciated, amygdaloidal<br>Frs=1/m :Vns =4/m<br>0.4% carbonate veining - macroveins<br>Massive andesite with minor flow breccia separating the individual flows. Brecciated sections extend for no more than 20-40 cm. 6-7 individual flows can be observed within the interval. | 120077 | 1259.13-1260.73 | 1.60 | | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |
| 1260.73 | 1262.64 | HW Laminated Mudstone<br>Black, laminated<br>bedding 50°<br>Frs=2/m :Vns =2/m<br>0.2% carbonate veining - macroveins<br>*Poorly laminated siliceous mudstone. Bedding defined* by 4-6, 0.5-1 cm thick pyrite beds.<br><br>Pyrite also occurs as sub-mm anhedral xtls, diss. thr'out the mudstone. | 120078 | 1260.73-1261.61 | 0.88 | | 1 | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |
| | | | 120079 | 1261.61-1262.64 | 1.03 | | 1 | 0.01 | 0.02 | 0.01 | 0.01 | 3 | 0.01 |
| 1262.64 | 1270.93 | HW Andesite Breccia<br>Grayish-green, fragmental<br>Angular to sub-rounded andesite clasts within a mudstone to calcite rich matrix. Clasts are typically 1-3cm dia but range up to 6 cm. Percentage of clasts also variable, ranges from 30% to 90% of the rock. | 120080 | 1262.64-1264.00 | 1.36 | 0.1 | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |
| | | | 120081 | 1266.75-1268.14 | 1.39 | | | 0.01 | 0.02 | 0.01 | 0.01 | 3 | 0.01 |
| | | | 120082 | 1268.14-1269.50 | 1.36 | | | 0.01 | 0.02 | 0.01 | 0.01 | 3 | 0.01 |
| | | | 120083 | 1269.50-1270.93 | 1.43 | | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |
| 1270.93 | 1271.95 | HW Laminated Mudstone<br>Black, laminated<br>bedding 50°<br>0.8% pyrite - laminations<br>Siliceous mudstone with rare fine grained pyrite bands defining bedding. | 120084 | 1270.93-1271.95 | 1.02 | | 1 | 0.01 | 0.06 | 0.01 | 0.01 | 3 | 0.01 |
| 1271.95 | 1309.68 | HW Andesite Breccia<br>Fine-coarse grained, green, fragmental, amygdaloidal<br>Brecciated andesite, similar to above units. Interval also contains thin flows and fragments with pipe vesicles that are now filled with chlorite and calcite *(pipe amygdules). Pipe vesicles only observed in* upper 6 m of interval.<br><br>Clasts are all aphanitic, angular, comprise 70-90% of rock and occur within a calcite-rich, andesitic mud matrix. | 120085 | 1271.95-1273.51 | 1.56 | | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1309.68 | 1318.20 | HW Andesite Flow<br>Green, massive<br>Massive to weakly brecciated andesite flow with calcite-filled amygdules.<br><br>Brecciated sections between flows still proves that it is a flow and not a dyke. | | | | | | | | | | | |
| 1318.20 | 1357.82 | HW Andesite Breccia<br>Fine-coarse grained, green, fragmental, amygdaloidal<br>Frs=1/m :Vns =1/m<br>0.1% carbonate veining - microveins<br>Amygdule-rich andesite fragments within a fine andesitic ash matrix.<br><br>10-15% of interval consists of 10-30cm wide sections of flow or pillowed flow with amygdules concentrated at the margins of the flows. All amygdules are typically filled with chlorite.<br><br>Clast density is extremely variable, changing from 60-70% to almost 100% with sub-mm thick black seams, meandering around the fragments. | | | | | | | | | | | | |
| 1357.82 | 1361.45 | HW Andesite Flow<br>Fine-coarse grained, dark khaki, amygdaloidal, brecciated<br>Frs=2/m :Vns =3/m<br>0.2% carbonate veining - microveins<br>Variable unit consisting of a single pillow with ameoboid pillow breccia above, massive flows of andesite and fragments of andesite.<br><br>The fragmented andesite comprises 10% of interval, clasts are 0.5-2 cm in size and occur within a calcified andesitic ash matrix.<br><br>Pillow has amygdules on the fine grained margins. | 120086 | 1360.00-1361.45 | 1.45 | | | 0.01 | 0.01 | 0.01 | 0.01 | 3 | 0.01 |
| 1361.45 | 1362.35 | Contact Mud Matrix Rhy Breccia<br>Fine-coarse grained, blackish-yellow, fragmental<br>cleavage, foliation 60°<br>Frs=2/m :Vns =20/m<br>2% qz veining - macroveins<br>Two separate sections of transitional rock.<br><br>1361.45-1361.80: This top half is dominated by black | 120087<br>120088 | 1361.45-1361.80<br>1361.80-1362.35 | 0.35<br>0.55 | | 1 | 0.01<br>0.01 | 0.01<br>0.01 | 0.01<br>0.01 | 0.01<br>0.01 | 3<br>3 | 0.01<br>0.01 |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | to dark grey rhyolitic siltstone-sandstone fragments that have been networked by a stockwork of qtz veins. Unknown if the stockworking resulted in the brecciated texture. Within this interval there is also a 5 cm wide band of brecciated andesite flow. Near base there is also rare angular rhyolite fragments within the mudstone/siltstone matrix.<br><br>The upper contact with the overlying flow is sharp.<br><br>1361.80-1362.35: This lower unit is greenish yellow in colour and consist of flattened rhyolite fragments within a medium grey to black rhyolite ash matrix. Fragments appear to be angular to sub-rounded (difficult to tell due to flattening), ranged from 0.5-5 cm in size, are poorly sorted, and comprise 70-80% of the rock. 0.5-1 cm thick qtz veins occur and were there pre-fabric because they are parallel to foliation. Also a set of spidery veinlets that are 0.5-1 mm thick and cross-cut foliation and fragments.<br><br>Contact with upper transitional unit is sharp.<br><br>Alt: Weak sericite/chlorite, yellowish-green 0.2-0.4 cm thick folia between the fragments. Yellowish colouration could also be caused by a subtle sericite overprint.<br><br>Min: No mineralization. | | | | | | | | | | | |
| 1362.35 | 1371.30 | Autobrecciated Rhyolite Flow<br>Greenish-gray, auto-brecciated<br>cleavage, foliation 45°<br>Frs=2/m :Vns =3/m<br>1% chlorite alteration - vein<br>0.1% qz veining - microveins<br>0.1% pyrite - clasts<br>Massive to autobrecciated rhyolite. Very subtle layering (a single parting, spaced every 10-20cm) that defines the cleavage. These partings occur rarely where rhyolite becomes weakly brecciated and there is black, rhyolite ash/mud forming sub-mm thick partings.<br><br>Green colouration is strongest surrounding the fine black partings that separate the weakly autobrecciated rhyolite. The green staining is very weak chlorite that forms subtle halos around the black partings. | 120089<br>120090<br>120091<br>120092<br>120093<br>120094 | 1362.35-1364.00<br>1364.00-1365.50<br>1365.50-1366.50<br>1366.50-1368.00<br>1368.00-1369.50<br>1369.50-1371.30 | 1.65<br>1.50<br>1.00<br>1.50<br>1.50<br>1.80 | <br><br><br><br><br>0.2 | <br><br><br><br><br> | 0.01<br>0.01<br>0.01<br>0.01<br>0.01<br>0.01 | 0.01<br>0.01<br>0.01<br>0.01<br>0.01<br>0.01 | 0.01<br>0.01<br>0.01<br>0.01<br>0.01<br>0.01 | 0.01<br>0.01<br>0.01<br>0.01<br>0.01<br>0.01 | 3<br>3<br>3<br>3<br>3<br>3 | 0.01<br>0.01<br>0.01<br>0.01<br>0.01<br>0.01 |

| FROM | TO | DESCRIPTION | Sample | Interval | Width | Au gpt | Ag gpt | Pb % | Zn % | Cu % | As % | Hg ppm | Sb % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Alt: Absent.<br><br>Min: Rare, isolated anhedral pyrite clots scattered thr'out the rock. Present in very (!) trace amounts. | | | | | | | | | | | |
| | (eoh) | | | | | | | | | | | | |

11/02/00

| From | TO | Measured Width | Recovery | RQD | Hardness |
|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0 | 0 | |

# Appendix 4:

# Assay Certificates

# CERTIFICATE OF ANALYSIS
# iPL 00H0917

INTERNATIONAL PLASMA LABORATORY LTD.
2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
[091716:47:10:00081500]

**Homestake Canada Inc**
Project : 90702 Eskay Creek
Shipper : Percy Pacor
Shipment: PO#:
**Analysis:**
Au/Ag(g/mt) As Sb Cu Pb Zn Hg(ppm)

**Comment:**

**110 Samples** Out: Aug 11, 2000 In: Aug 10, 2000

| CODE | AMOUNT | TYPE | PREPARATION DESCRIPTION | PULP 12M/Dis | REJECT 03M/Dis |
|---|---|---|---|---|---|
| B221 | 110 | Core | Crush, split & pulverize to -150 Mesh. | | |

NS=No Sample Rep=Replicate M=Month Dis=Discard

## Document Distribution

1 Homestake Canada Inc
PO Box 11115 1100-1055 Georgia St.
Vancouver
B.C. V6E 3P3
Canada
Att: Ann Rippon

| EN | RT | CC | IN | FX |
|---|---|---|---|---|
| 1 | 2 | 1 | 2 | 1 |
| DL | 3D | EM | BT | BL |
| 0 | 0 | 0 | 0 | 0 |

Ph:604/684-2345
Fx:604/684-9831

2 Homestake Canada Inc CAMP KM 45
Box 3908
Smithers
B.C. V0J 2N0
Canada
Att: Percy Pacor (Eskay Creek)

| EN | RT | CC | IN | FX |
|---|---|---|---|---|
| 1 | 2 | 0 | 0 | 1 |
| DL | 3D | EM | BT | BL |
| 0 | 0 | 0 | 0 | 0 |

Ph:1-600/700-4029
Fx:1-600/700-9225
Em:ppacor@homestake.com

## Analytical Summary

| ## | Code | Method | Units | Description | Element | Limit Low | Limit High |
|---|---|---|---|---|---|---|---|
| 01 | 0368 | FA/AAS | g/mt | Au (FA/AAS 30g) g/mt | Gold | 0.01 | 9999.00 |
| 02 | 0364 | FAGrav | g/mt | Au FA/Grav in g/mt | Gold | 0.07 | 9999.00 |
| 03 | 0354 | FAGrav | g/mt | Ag FA/Grav in g/mt | Silver | 0.3 | 1000.0 |
| 04 | 0113 | AsyMuA | % | Cu Assay by AA/ICP in % | Copper | 0.01 | 100.00 |
| 05 | 0118 | AsyMuA | % | Pb Assay by AA/ICP in % | Lead | 0.01 | 100.00 |
| 06 | 0140 | AsyMuA | % | Zn Assay by AA/ICP in % | Zinc | 0.01 | 100.00 |
| 07 | 0103 | AsyMuA | % | As Assay by AA/ICP in % | Arsenic | 0.01 | 100.00 |
| 08 | 0102 | AsyMuA | % | Sb Assay by AA/ICP in % | Antimony | 0.01 | 100.00 |
| 09 | 0732 | AsyMuA | ppm | Hg assay by ICP in ppm | Mercury | 3 | 99999 |

EN=Envelope # RT=Report Style CC=Copies IN=Invoices Fx=Fax(1=Yes 0=No) Totals: 1=Copy 2=Invoice 0=3½ Disk
DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C03432216
* Our liability is limited solely to the analytical cost of these analyses.

**BC Certified Assayer: David Chiu**

INTERNATIONAL PLASMA LABORATORY LTD.

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Fax (604) 879-7898

# CERTIFICATE OF ANALYSIS
## iPL 00H0917

Client : Homestake Canada Inc
Project: 90702 Eskay Creek

**110 Samples**
110=Core

[091716:47:10:00081500]

Out: Aug 11, 2000
In : Aug 10, 2000



| Sample Name | Type | Au g/mt | Au g/mt | Ag g/mt | Cu % | Pb % | Zn % | As % | Sb % | Hg ppm |
|---|---|---|---|---|---|---|---|---|---|---|
| 514747 | Core | 0.36 | — | <0.3 | <0.01 | <0.01 | 0.01 | 0.01 | 0.02 | 36 |
| Minimum Detection | | 0.01 | 0.07 | 0.3 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 3 |
| Maximum Detection | | 9999.00 | 9999.00 | 1000.0 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 99999 |
| Method | | FA/AAS | FAGrav | FAGrav | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA |

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

# CERTIFICATE OF ANALYSIS
# iPL 00H0986

INTERNATIONAL PLASMA LABORATORY LTD
2036 Columbia Street
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Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
[098615:18:47:00082500]

**Homestake Canada Inc**
Project : 90702 Eskay Crk. Ship #16
Shipper : Percy Pacor
Shipment: #16 PO#:
**Analysis:**
Au/Ag(g/mt) As Sb Cu Pb Zn Hg(ppm)

**Comment:**

**62 Samples** Out: Aug 24, 2000 In: Aug 18, 2000

| CODE | AMOUNT | TYPE | PREPARATION DESCRIPTION |
|---|---|---|---|
| B221 | 62 | Core | Crush, split & pulverize to -150 Mesh. |

PULP 12M/Dis REJECT 03M/Dis
NS=No Sample Rep=Replicate M=Month Dis=Discard

## Analytical Summary

| ## | Code | Method | Units | Description | Element | Limit Low | Limit High |
|---|---|---|---|---|---|---|---|
| 01 | 0368 | FA/AAS | g/mt | Au (FA/AAS 30g) g/mt | Gold | 0.01 | 9999.00 |
| 02 | 0364 | FAGrav | g/mt | Au FA/Grav in g/mt | Gold | 0.07 | 9999.00 |
| 03 | 0354 | FAGrav | g/mt | Ag FA/Grav in g/mt | Silver | 0.3 | 1000.0 |
| 04 | 0113 | AsyMuA | % | Cu Assay by AA/ICP in % | Copper | 0.01 | 100.00 |
| 05 | 0118 | AsyMuA | % | Pb Assay by AA/ICP in % | Lead | 0.01 | 100.00 |
| 06 | 0140 | AsyMuA | % | Zn Assay by AA/ICP in % | Zinc | 0.01 | 100.00 |
| 07 | 0103 | AsyMuA | % | As Assay by AA/ICP in % | Arsenic | 0.01 | 100.00 |
| 08 | 0102 | AsyMuA | % | Sb Assay by AA/ICP in % | Antimony | 0.01 | 100.00 |
| 09 | 0732 | AsyMuA | ppm | Hg assay by ICP in ppm | Mercury | 3 | 99999 |

## Document Distribution

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PO Box 11115 1100-1055 Georgia St.
Vancouver
B.C. V6E 3P3
Canada
Att: Ann Rippon

| EN | RT | CC | IN | FX |
|---|---|---|---|---|
| 1 | 2 | 1 | 2 | 1 |
| DL | 3D | EM | BT | BL |
| 0 | 0 | 0 | 0 | 0 |

Ph:604/684-2345
Fx:604/684-9831

2 Homestake Canada Inc CAMP KM 45
Box 3908
Smithers
B.C. V0J 2N0
Canada
Att: Percy Pacor (Eskay Creek)

| EN | RT | CC | IN | FX |
|---|---|---|---|---|
| 1 | 2 | 0 | 0 | 1 |
| DL | 3D | EM | BT | BL |
| 0 | 0 | 0 | 0 | 0 |

Ph:1-600/700-4029
Fx:1-600/700-9225
Em:ppacor@homestake.com

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DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C03432216
* Our liability is limited solely to the analytical cost of these analyses.

**BC Certified Assayer: David Chiu**

INTERNATIONAL PLASMA LABORATORY LTD.
2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

# CERTIFICATE OF ANALYSIS
## iPL 00H0986

Client : Homestake Canada Inc
Project: 90702 Eskay Crk. Ship #16

**62 Samples**
62=Core

[098615:18:47:00082500]

Out: Aug 24, 2000
In : Aug 18, 2000



| Sample Name | Type | Au g/mt | Au g/mt | Ag g/mt | Cu % | Pb % | Zn % | As % | Sb % | Hg ppm |
|---|---|---|---|---|---|---|---|---|---|---|
| 1056 513849 | Core | 0.09 | — | 3.7 | <0.01 | 0.01 | 0.10 | 0.01 | <0.01 | <3 |
| Minimum Detection | | 0.01 | 0.07 | 0.3 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 3 |
| Maximum Detection | | 9999.00 | 9999.00 | 1000.0 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 99999 |
| Method | | FA/AAS | FAGrav | FAGrav | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA |

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

# CERTIFICATE OF ANALYSIS
## iPL 00J1373

INTERNATIONAL PLASMA LABORATORY LTD.
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898
Email ipl@direct.ca

[137310:47:45:00102400]

**Homestake Canada Inc**
Project : 90702 Eskay Creek
Shipper : Percy Pacor
Shipment: PO#:
**Analysis:**
Au/Ag(g/mt) As Sb Cu Pb Zn Hg(ppm)

**Comment:**

**89 Samples** Out: Oct 17, 2000 In: Oct 12, 2000

| CODE | AMOUNT | TYPE | PREPARATION DESCRIPTION | PULP | REJECT |
|---|---|---|---|---|---|
| B221 | 89 | Core | Crush, split & pulverize to -150 Mesh. | 12M/Dis | 03M/Dis |

NS=No Sample Rep=Replicate M=Month Dis=Discard

### Analytical Summary

| ## | Code | Method | Units | Description | Element | Limit Low | Limit High |
|---|---|---|---|---|---|---|---|
| 01 | 0368 | FA/AAS | g/mt | Au (FA/AAS 30g) g/mt | Gold | 0.01 | 9999.00 |
| 02 | 0364 | FAGrav | g/mt | Au FA/Grav in g/mt | Gold | 0.07 | 9999.00 |
| 03 | 0354 | FAGrav | g/mt | Ag FA/Grav in g/mt | Silver | 0.3 | 1000.0 |
| 04 | 0113 | AsyMuA | % | Cu Assay by AA/ICP in % | Copper | 0.01 | 100.00 |
| 05 | 0118 | AsyMuA | % | Pb Assay by AA/ICP in % | Lead | 0.01 | 100.00 |
| 06 | 0140 | AsyMuA | % | Zn Assay by AA/ICP in % | Zinc | 0.01 | 100.00 |
| 07 | 0103 | AsyMuA | % | As Assay by AA/ICP in % | Arsenic | 0.01 | 100.00 |
| 08 | 0102 | AsyMuA | % | Sb Assay by AA/ICP in % | Antimony | 0.01 | 100.00 |
| 09 | 0732 | AsyMuA | ppm | Hg assay by ICP in ppm | Mercury | 3 | 99999 |

### Document Distribution

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| 1 Homestake Canada Inc | 1 | 2 | 1 | 2 | 1 |
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| Vancouver | 0 | 0 | 0 | 0 | 0 |
| B.C. V6E 3P3 | | | | | |
| Canada | | | | | |
| Att: Ann Rippon | Ph:604/684-2345 | | | | |
| | Fx:604/684-9831 | | | | |

| | EN | RT | CC | IN | FX |
|---|---|---|---|---|---|
| 2 Homestake Canada Inc CAMP KM 45 | 1 | 2 | 0 | 0 | 1 |
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| | Fx:1-600/700-9225 | | | | |
| | Em:ppacor@homestake.com | | | | |

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DL=Download 3D=3½ Disk EM=E-Mail BT=BBS Type BL=BBS(1=Yes 0=No) ID=C03432216
* Our liability is limited solely to the analytical cost of these analyses.

**BC Certified Assayer: David Chiu**

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Email ipl@direct.ca

# CERTIFICATE OF ANALYSIS
## iPL 00J1373

ISO 9002 REGISTERED KPMG

Client : Homestake Canada Inc
Project: 90702 Eskay Creek

**89 Samples**
89=Core

[137310:47:45:00102400]

Out: Oct 17, 2000
In : Oct 12, 2000



| Sample Name | Type | Au g/mt | Au g/mt | Ag g/mt | Cu % | Pb % | Zn % | As % | Sb % | Hg ppm |
|---|---|---|---|---|---|---|---|---|---|---|
| 120077 | Core | 0.02 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120078 | Core | 0.01 | — | 0.8 | 0.01 | <0.01 | 0.04 | 0.01 | <0.01 | <3 |
| 120079 | Core | 0.01 | — | 0.8 | 0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <3 |
| 120080 | Core | 0.05 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120081 | Core | 0.02 | — | 0.3 | 0.01 | <0.01 | 0.02 | 0.01 | <0.01 | <3 |
| 120082 | Core | 0.01 | — | 0.3 | <0.01 | <0.01 | 0.02 | 0.01 | <0.01 | <3 |
| 120083 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | 0.01 | <0.01 | <3 |
| 120084 | Core | 0.01 | — | 0.6 | 0.01 | <0.01 | 0.06 | <0.01 | <0.01 | <3 |
| 120085 | Core | <0.01 | — | 0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120086 | Core | <0.01 | — | 0.4 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120087 | Core | <0.01 | — | 0.5 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120088 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120089 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120090 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120091 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120092 | Core | 0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| Minimum Detection | | 0.01 | 0.07 | 0.3 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 3 |
| Maximum Detection | | 9999.00 | 9999.00 | 1000.0 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 99999 |
| Method | | FA/AAS | FAGrav | FAGrav | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA | AsyMuA |

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample

# CERTIFICATE OF ANALYSIS
## iPL 00J1373

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2036 Columbia Street
Vancouver, B.C.
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Phone (604) 879-7878
Fax (604) 879-7898
Email ipl@direct.ca

Client : Homestake Canada Inc
Project: 90702 Eskay Creek

**89 Samples**
89=Core

[137310:47:45:00102400]

Out: Oct 17, 2000
In : Oct 12, 2000



| Sample Name | Type | Au g/mt | Au g/mt | Ag g/mt | Cu % | Pb % | Zn % | As % | Sb % | Hg ppm |
|---|---|---|---|---|---|---|---|---|---|---|
| 120093 | Core | <0.01 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| 120094 | Core | 0.15 | — | <0.3 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <3 |
| **Minimum Detection** | | 0.01 | 0.07 | 0.3 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 3 |
| **Maximum Detection** | | 9999.00 | 9999.00 | 1000.0 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 99999 |
| **Method** | | FA/AAS | FAGrav | FAGrav | AsyHuA | AsyHuA | AsyHuA | AsyHuA | AsyHuA | AsyHuA |

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No Sample