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1994 SUMMARY REPORT  
on the  
Molly Gibson 1990 Claim

KAM 94-0400366-421

GREENWOOD MINING DIVISION  
British Columbia

North Latitude 49 09' West Longitude 118 07.5'

NTS 82E/01E  
UTM Zone 11

Prepared for

Herman Hoehn  
GN Road  
Grand Forks, British Columbia  
VOH 1H0

Prepared by

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Grand Forks, B.C.

**RECEIVED**

FEB 02 1995

GOVERNMENT AGENT  
GRAND FORKS

VOH 1H0 **GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

January 1995

**23,753**

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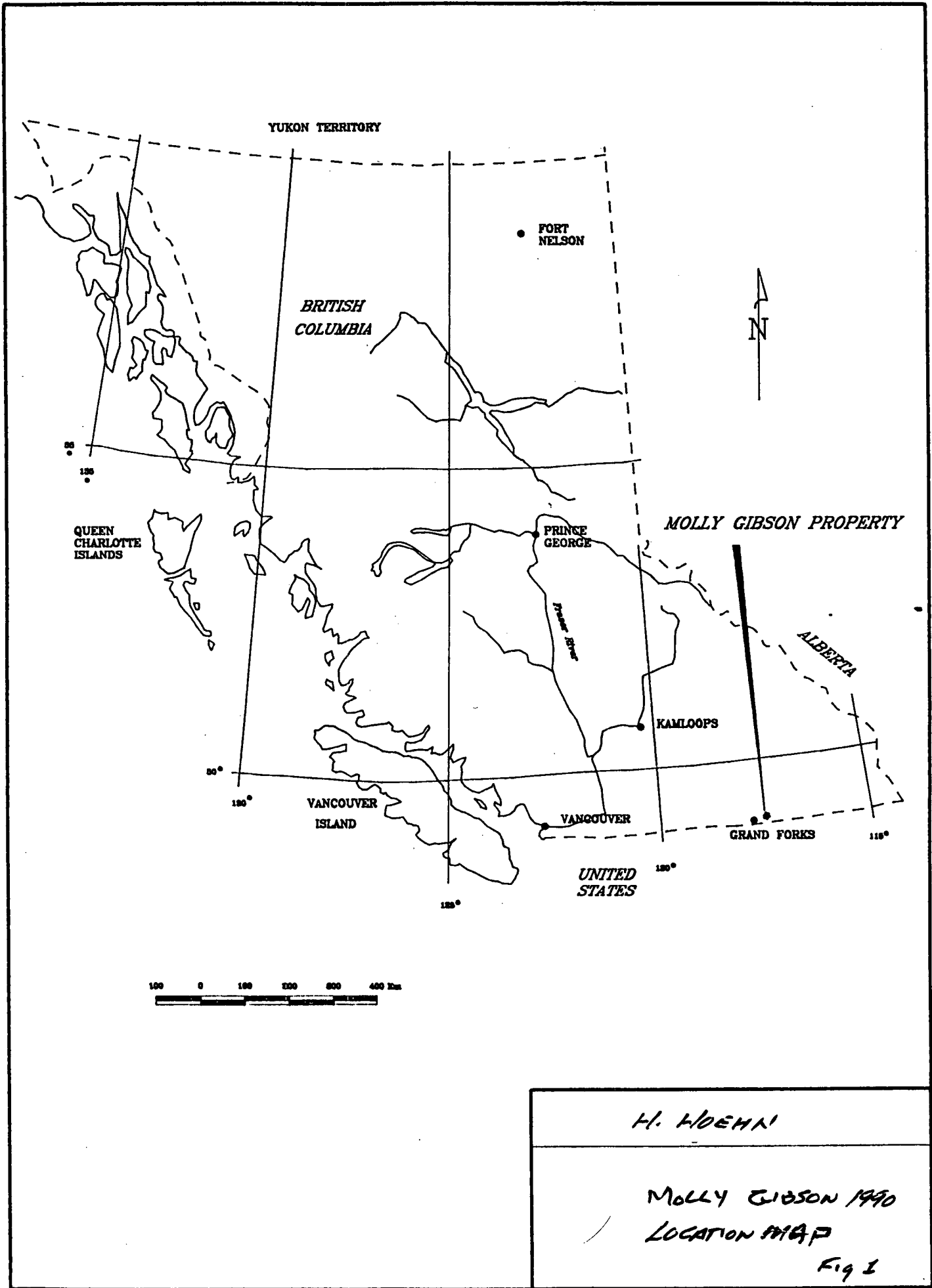
## 1.0 INTRODUCTION

This report describes the 1994 Molly Gibson 1990 mineral claim assessment work program conducted by R.E. Miller on behalf of Herman Hoehn, whose address is GN Road Grand Forks, B.C. V0H 1H0. Field work was conducted from September 10, 1994 to November 1, 1994. The Molly Gibson 1990 claim is located approximately 40 km East of Grand Forks, B.C. at the southeast end of the Burnt Basin Mining Camp (Figure #1).

Field work consisted of 4 km of road clearing and rehabilitation, adit maintenance, and 1.5 km of chain and compass line along which 30 rock chip samples were collected covering 1100 meters of the line. The samples were assayed for geochem gold.

## 1.1 SUMMARY

In an attempt to follow up on the recommendations in the 1992, 1993 Crown Resources Assessment Report, 4.0 km of access road into the old workings was cleared to gain access to proposed drill sites at the Bob Miller adit and 30 rock chip samples were collected from the interesting outcrops along 1100 meters of the line that started at the southeast corner of the claim and proceeded 1500 meters



H. HOEHN  
MOLLY GIBSON 1990  
LOCATION MAP  
Fig 1

northerly. The long north south rock chip sample line was initially planned for the west side of the claim but early snow caused the program to be shifted to the east claim boundary at a lower elevation. Both programs were successful but follow-up was impractical due to early snows and a delay in the permitting process.

The exploration targets are skarn hosted gold deposits along the intrusive metasediment contact that lies within the claim boundaries.

#### 1.2 PROPERTY AND OWNERSHIP

Mr Herman Hoehn of Grand Forks, B.C. is the owner of the Molly Gibson 1990 16 unit claim, which is located in the Greenwood Mining District in south eastern B.C. (Figure #2).

The following table summarizes the pertinent claim data:

#### MOLLY GIBSON 1990 CLAIM

UNITS	CLAIM NAME	TENURE NUMBER	EXPIRY DATE*
16	Molly Gibson 1990	215968 (6104)	Nov 2, 1995

\*Pending acceptance of this report

Redwick



Paulson  
96945-78309

SILTECH 5061(1)  
55x4W (178309)

RC.G. L 2874 4377 (2)

RC.G. L 2873 4376 (2)

SILTECH 6398

ALSO CRAIG 1 5039(11)

ROY 5028(10) 45x5W (78263)

MOLLIE C B  
1264(5)

MOLLIE "A"  
1268(5) 4Wx3W (121935)

121935  
121934  
121937  
121936

BARB 120  
5038(11) ✓  
55x4W (96945)

JOSH 70

JOSH 10  
4775(12)  
4NX4W (92252)

L 136 4272(3) REV CG

JOSH 90  
5636(1)  
4NX5W (122568)

L 1510 4271(3) RCG  
L 1511 REV CG  
L 1508 4270(3)  
L 1509 574(3) RCG  
L 1512 4268(3) RCG  
L 2596 4274(3) RCG

L 1749 4273(3) REV CG  
L 1748 4274(3) REV CG

L 2595 4269(3) RCG

L 2031 4277(3) RCG

L 3082 4272(3) RCG

L 2051 810(1) RCG  
L 2052 810(1) RCG  
L 3239 812(1) RCG

4626(7) YES  
4625(7) YES  
4624(7) YES  
4623(7) YES  
4622(7) YES

MOLLIE C  
1270(5)  
45x3W

Day Cr.

MOLLIE

JOSH 2  
4997(7)  
55x4W

MOLLY GIBSON 1990  
"6104 (ii)  
45x4W  
215968

L 2055 4273(3) RCG

COLE 2 5900(5)  
COLE 4 5901(5)  
COLE 3 5902(5)

Coryell

Scale 1 km



McRae Creek

Hwy 3

68547

68546

KETTLE McRAE 7  
4459(1)

H. HOEHN

DATE 01/19/5

CLAIM MAP  
MOLLY GIBSON 1990

REVISED BY	DATE

DATA BY

SCALE 1:50000

SHEET NO.

PLATE NO.

Fig 2

### 1.3 LOCATION, ACCESS AND PHYSIOGRAPHY

The Molly Gibson 1990 claim is situated in the Greenwood Mining Division of Southern British Columbia near Bonanza Pass on Highway #3, 7.0 km east of Paulson, an old Canadian Pacific rail station. Grand Forks is approximately 40 km to the west and Castlegar is about 35 km to the east.

Granville Mountain is northeast of the property at Latitude 49 11' N Longitude 118 04' W. McRae Creek borders the east side of the property as does Interprovincial Highway #3. Molly Gibson (1990) is centered at 118 07' and 49 09'

Access is via a southerly trending, steady grade mine road that leaves the old Castlegar highway near its junction with Highway #3 at the south west end of the Paulson Bridge. Mining, logging, and bush roads provide access to the central interior of the property.

An approximate relief of 600 meters occurs within the claim from the topographical low point near McRae Creek and Interprovincial Highway #3 at the south east corner of the claim, to the high point at the height of land within the central part of the claim. Mount St. Thomas, south east of the property, is some 2100+ meters (6500 +feet) in

elevation and is the most prominent point in the immediate area.

Topography varies from gentle rolling hills in the central up-lands, to precipitous cliffs south along the east claim boundary that sub parallels the McRae Creek drainage.

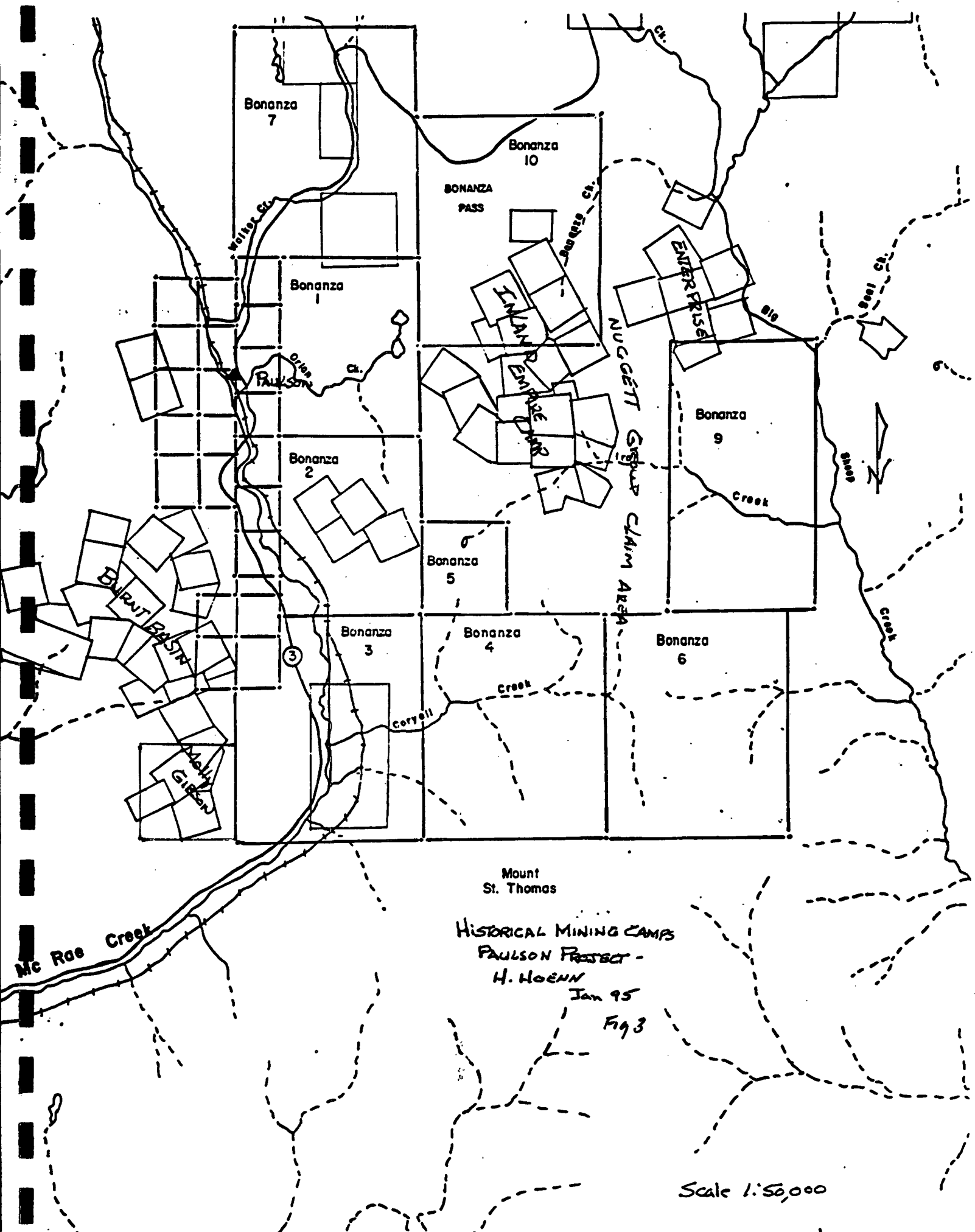
Vegetation consists mainly of conifers with scrub brush, poplars, and grass along drainages. Some earlier generations of logging have taken place within the claim.

#### 1.4 HISTORY

Most of the previous mineral work, near or within the Molly Gibson (1990) claim, has been associated with the Burnt Basin and Inland Empire mining camps of which Paulson was the jumping off point along the old railroad. (Figure #3) Historical mining efforts in the Burnt Basin Camp started in the late 1890's centering around; lead, zinc, silver, copper "replacement bodies" in the central portion of the camp along with gold mineralization at the Molly Gibson and Motherlode claims south and northwest of the central base metal showings.

Base metal production in the camp has been sporadic and no





Mount  
St. Thomas

HISTORICAL MINING CAMPS  
PAULSON PROJECT -  
H. HOENN  
Jan 95  
Fig 3

Scale 1:50,000

production records are readily apparent until 1948 when the Minister of Mines report states that 14 tons of base metal ores were shipped from the Halifax claim to the smelter at Trail.

Direct shipments of mine run ore, mainly from the Eva Bell and Halifax claims were made from 1972-1977. Lack of concentration facilities on site to up-grade the mine run ore resulted in marginal economics and production ceased. The following table summarizes the recent base metal data, exploration efforts, and production history at Burnt Basin.

TABLE I

1927	Minister of Mines Report; per ton Silver 10.8 oz; Lead 17.8%; Zinc 20.5%.
1948	Minister of Mines Report: 14 tons shipped; Silver 10.5 oz; Lead 18.1%; Zinc 18.3%, per ton.
1965	Christina Lake Mines - geological, geochemical and magnetometer surveys were completed. Some diamond drilling - data not available.
1968	Dalex Mines - an induced polarization survey, considerable stripping and trenching on Burnt Basin and Ajax claims. Geochemical survey, trenching and stripping and seven drill holes totalling 2,142 feet.
1972-75	Donna Mines, reports by E.O. Chisholm and H.H. Shear, line cutting and magnetometer surveys on the Eva Bell and Halifax, and five short diamond drill holes on the Eva Bell, cat trenching and percussion drilling. Shipped a total of 1,488 tons to Trail, H.B. Mines, Re-Mac Mines and Kam-Kotia.

- 1975-76 Alviija Mines Ltd - produced 1,750 tons from the Eva Bell claim and shipped 535 tons yielding 3.1 oz. Ag/ton, 4.45% Pb, 6.75% Zn with 21.5% magnetite to the H.B. Mine at Salmo.
- 1977 Paulson Mines Ltd. completed 1,500 feet of diamond drilling on the Halifax claim and published intercepts of up to 6" grading 12.4 oz. Ag/ton, 19.7% Lead and 14.9% Zinc. (note: Details not available)
- 1978 Oliver Resources completed a vector Pulse E.M. Survey, I.P. Survey with about 10 km completed. Granges Exploration Ltd. completed 291 m of diamond drilling on the Eva Bell and BP No. 2 (adjoins Eva Bell to the east).
- 1986-87 West Rim Resources carried out extensive soil geochemical surveys in the Halifax-Eva Bell area.

Table II summarizes the gold exploration and production history at Burnt Basin.

TABLE II

1909 - 1933	Shafts, tunnels and trenches on the Molly Gibson Group produced 260 tons containing 285 oz. gold and 119 oz. silver.
1909 - 1936	Molly Gibson Group an up-dated production total of 316 tons yielding 332 oz. gold.
1986 - 1987	West Rim Resources completed 420 meters of diamond drilling at the Motherlode prospect.
1988	John Worthing - Salt Lake City, Utah drilled at least 4 core holes on the Molly Gibson. (data unavailable)
1991	Pan Orvana completed small geochemical grid on Molly Gibson.

1992-1993 Crown Resources completed a drill hole program consisting of 3 reverse circulation drill holes.

Other gold claims in the Burnt Basin camp include the Kittie, Aldeen, Contact, Tammany and Tunnel group.

## 2.0 GENERAL GEOLOGY

### 2.1 REGIONAL GEOLOGY

Carboniferous or older rocks, possibly equivalent in part to the Pennsylvanian-Permian Mt. Roberts Formation and Lower Jurassic Elise Formation of the Rossland Group, have been intruded by Late Jurassic Early Cretaceous Nelson and Middle Eocene Coryell plutonic rocks. (Figure #4a & 4b).

Mt. Roberts Formation rocks form an elongated east west roof pendant in the central part of the project area. The pendant consists mainly of limestone, argillaceous limestone, chert, slate, pebble conglomerate and andesitic volcanics. Rocks within the pendant strike roughly north west 320 to 340 dipping 40 to 85 east and are cross cut by north trending shear zones.

Limestone and argillites are generally light gray to black



LEGEND

QUATERNARY	Pleistocene	QPI	LAMBLY CREEK BASALT: rusty weathering black basalt with irregularly ductile and pyroclastic phenocrysts to 5 mm in an aphanitic matrix. Occurs as columns generally less than 1 m high. Black shale. Microscopic study. R.A. age of 0.732 Ma determined by Church (1981)				
		TERTIARY	Miocene	PLATEAU BASALT: andesite and basalt with apatite and hornblende phenocrysts to 5 mm in a black aphanitic matrix. Forms massive flows to 20 m thick. Locally underlain by poorly sorted basaltic conglomerate and coarse sandstone. R.A. cooling ages of 2.9 and 14.8 Ma includes Gages Creek Basalt (14.8 Ma) and Carrot Mountain and basalt (11.8 Ma)			
				Eocene	Eof	OKALLA PHYLOLITE: rhyolite breccia, massive obsidian and related dikes	
					Ema	MARION GROUP: unmetamorphosed andesite, dacite and trachyte of the Marion Group may include minor acidic rocks equivalent to Eol and Eob	
						Ee	SKANA FORMATION: brecciated greenstone (Old Tom Formation), brecciated chert (Shoemaker Formation, Eol), and brecciated granite (Chert Granite, Eol) resting as four distinct horizons across the White Lake Formation on gently dipping faults. Includes unmetamorphosed polydeformed langsonite and shale resting unconformably on these brecciated rocks. Near Rock Creek includes heterophane acidic breccia (Hendee Mountain Basalt)
				CENOZOIC	Eocene	Ewl	WHITE LAKE FORMATION: massive to thick bedded volcanic breccia and pyroclastic rocks with clasts of Trapsier rhyolite and rhyolite and Yellow Lake tuffaceous, includes interbedded medium and thin beds of tuffaceous sandstone and siltstone. Minor to moderate sandstone. Includes minor trachyte and andesite. Pyroclastics from Powers Creek include a Middle Eocene or older age
						Em	MAHAMA FORMATION: medium brownish grey, fine bedded dacite with subangular to subhedral hornblende and biotite phenocrysts to 3 mm in an aphanitic ground. Forms the top of Black Knight Mountain, Mount Bouchere, Ammass Butt, Mount Lee
						En	MAHAMA FORMATION-NORTH LAKE MEMBER: massive reddish weathering amphibolite, schistosity with minor interbedded mafic equivalents
						Ek	RITLEY LAKE FORMATION: massive yellowish to buff trachyte to trachyandesite, porphyritic and biotite glomerophenocrysts to 3 cm (10% of the rock) in a fine crystalline groundmass. Includes ash flow tuff. Minor trachyte and andesite. Pyroclastics from Powers Creek. Church determined R.A. ages between 32.9 (biotite) and 44.2 Ma (whole rocks)
						Eyl	YELLOW LAKE FORMATION: massive to thick tabular flows of buff to yellowish grey, fine grained dacite with minor amphibole phenocrysts and primary anisole abundant below the cracks and irregularly. Includes unmetamorphosed mafic equivalents
Etr	TRAPSIER RHYOLITE: white and locally pink greenish or light grey fine bedded rhyolite with subhedral quartz, hornblende and biotite phenocrysts to 3 mm in an aphanitic matrix. R.A. ages of 47.7 and 46.2 Ma were determined by Church (1981) west of Trapsier						
Esb	SPRINGSIDE FORMATION: poorly sorted, massive to thick bedded immature coarse grained and pebbly conglomerate. Clasts to 50 cm are rounded but of low sphericity and are locally derived (chert, greenstone, granite and other pre-Eocene rocks with lower Marion Group units). Many lower Lake and Upper formations. Near Rock Creek this unit consists of white to light grey, medium bedded sandstone, siltstone and shale with coaly partings. Named the Noble Hill Formation						
Ec	CORVELL SYENITE: massive to calc-alkalic high level pink and buff syenite and quartz monzonite and trachyte with irregularly shaped phenocrysts. Equivalent of the Marion Group equivalent to the White Lake Formation. Gradual to subacute and to sharp green porphyry. Locally includes chert and interbedded in East part of map area poorly dated						
Esg	SHINGLE CREEK PORPHYRY: massive buff and pink, fine grained calc-alkalic granite and felsite with euhedral phenocrysts of K-feldspar to 10 cm across. Occurs as dikes under and parallel to the main axis of the Marion Group, especially the White Lake Formation. At some level equivalent of the Corvell Syenite. Includes minor porphyries and related rocks						
Egn	"GRANULAN GNEISS": massive medium grey weathering resistant hornblende gneiss with granoblastic orthopyroxene strongly foliated grades to muscovite gneiss, mafic and biotite gneiss, minor amphibole and garnet gneiss; minor siltstone, minor pegmatite and apatite strongly foliated along Chertan Fault, grades eastward and up the structure successively to gneiss and Ph units of which it is presumed as to the sheared equivalent, probably also includes sheared equivalents of the Anarchist Group, presumed sheared and thereby interbedded during the Eocene. Egn1: quartz diorite microbreccia and related altered rocks close to the Chertan Fault						
Egng	Massive light grey weathering base granite gneiss and granodiorite gneiss with pegmatite veins and silt						
Eg	Hornblende granodiorite massive resistant, grey weathering, coarse grained equigranular mafic gneiss with euhedral fresh black hornblende crystals. Locally weedy foliated age poorly constrained						
MESOZOIC	CRETACEOUS AND OR JURASSIC	Jkg	OKALLAN BASALT: massive light grey weathering, medium to coarse grained, equigranular to porphyritic, unfoliated to weakly foliated fresh base granodiorite and granite includes unmetamorphosed granodiorite of the Nelson Suite. Age poorly constrained				
		OLIVER PLUTON: massive, unfoliated, medium grained porphyritic base granite with weakly foliated equigranular hornblende granodiorite along the southern border. Includes silt, base hornblende base gneiss and JOG, massive garnet-muscovite gneiss, age poorly constrained					
		OSIVOOS GRANODIORITE: massive, dark greenish hornblende granodiorite pervasively schistosity, oriented, sheared and fractured. Age unknown					
		MIDDLE JURASSIC	NELSON PLUTONIC ROCKS: massive, generally moderately foliated, medium grey weathering, medium to coarse grained, equigranular hornblende base granite, quartz diorite and granite includes unmetamorphosed biotite granite of the Yamalo Suite. Age poorly constrained				
			OKALLA PHYLOLITE: black fresh massive, medium to coarse grained pyroclastic hornblende, saponite and pectolite				
			KRUGER SYENITE: massive, medium grained biotite hornblende granodiorite with a mafic zone of megacrystic, mesocratic coarse grained hornblende gneiss				
		MESOZOIC	MESOZOIC	UPPER TRIASSIC AND/OR LOWER JURASSIC	uTrv	ROSSLAND AND NICOLA GROUPS: massive greenstone, andesite, tuff, agglomerate and volcanic breccia of greenstone fragments locally with limestone clasts. Minor greenstone minor interbedded andesite. Includes lenses of unmetamorphosed mafic units may include unmetamorphosed Lower Jurassic volcanics of similar lithology	
					uTrts	Rusty weathering, dark pyritic slate phyllite and gneiss locally unmetamorphosed or "cherty", minor quartzite minor interbedded andesite. Includes unmetamorphosed greenstone lenses	
				ORDOVICIAN TO UPPER TRIASSIC	uTrot	OLD TOM FORMATION: massive andesitic greenstone and greenstone breccia locally includes large andesite, strongly schistosity in irregular bodies and lenses with gradational boundaries, which are unmetamorphosed and a few small areas of unmetamorphosed andesite. Minor chert and is poorly understood. Known to contain Ordovician, Carboniferous and Triassic fossils. Unmetamorphosed relations to Shoemaker Formation are gradual	
					uTre	SHOEMAKER FORMATION: massive, greyish green schistosity volcanic rocks including "cherty" tuff and breccia. Includes unmetamorphosed massive greenstone. May include chert, generally fractured and broken by irregular spaced cleavages. May be largely the schistosity equivalent of the Old Tom Formation	
INDEPENDENCE FORMATION: massive greenstone, volcanic breccia with greenstone fragments. Includes large unmetamorphosed schistosity. Includes lenses of unmetamorphosed andesite. Resembles the Old Tom and Shoemaker Formations							
MIDDLE AND LOWER TRIASSIC (?)	BROOKLYN LIMESTONE AND "SHARPSTONE CONGLOMERATE": white weathering, fine bedded, light grey limestone common, with rounded to angular clasts "chert" granite minor greenstone andesite and massive resistant, breccia with angular, roughly equant clasts to 10 cm in size of "chert" and greenstone and locally limestone in a matrix of limestone sand and grit of the same matrix. Grades to "chert" sandstone and "chert" grit by decrease in grain size. Minor green and black granite, a few grained silt grains and matrix strongly schistosity "chert" and andesitic greenstone fragments. Derived mainly from the hood rock Group. Limestone mostly from the Brown Formation and locally from the Alwood Group. Limestone contains Middle Triassic fossils						
				Trba			
CARBONIFEROUS OR PERMIAN	KNOB HILL GROUP: massive "chert" largely schistosity greenstone, greenstone and amphibolite. Minor limestone of mafic rock "chertstone" age unknown						
				CPat	ATWOOD GROUP: light grey limestone with minor interbedded chert. Contains Carboniferous fossils		
CARBONIFEROUS	BLIND CREEK FORMATION: medium bedded grey limestone and calcareous siltstone, local pervasively foliated, low greenschist facies metamorphism						
		Cbc					
CARBONIFEROUS OR OLDER	BANSLOW FORMATION: thin bedded, brown, silty siltstone and argillaceous siltstone. Local pervasively foliated, low greenschist facies metamorphism						
		Cb					
CARBONIFEROUS OR OLDER	ANARCHIST GROUP: dark grey weathering, massive amphibolite greenstone, quartz chlorite schist, quartz diorite schist. Minor schistosity pervasively "chert" breccia that resembles the siltstone. Includes unmetamorphosed and schistosity equivalent. CPat amphibolite age unknown						
		CPa					
ORDOVICIAN (?) TO DEVONIAN (?)	KOBAL GROUP: unfoliated amphibolite greenstone, quartzite, mica schist, greenstone; minor marble strongly foliated with pervasively lesser fabrics. Age unknown						
		CPko					
ORDOVICIAN (?) TO DEVONIAN (?)	SCHIST: thin bedded argillaceous limestone, shale and limestone. Includes metamorphosed equivalent mostly base chert-quartz schist and marble. Age unknown						
		ODa					
PROTEROZOIC (?) AND PALEOZOIC (?)	GRAND FORKS GNEISS	Pgfm	Mafic base megacrystic gneiss. Proo unit II				
		Pgfo	Medium crystalline, well foliated base hornblende granodiorite orthogneiss. Proo unit II				
PROTEROZOIC AND PALEOZOIC	Pglf	Pglf	Amphibole, amphibolite gneiss, minor marble. Proo unit IV				
		Pgfs	Coarsely crystalline garnet-biotite schist, interbedded quartzite, minor marble, abundant pegmatite and megacrystic. Proo unit II				
PROTEROZOIC AND PALEOZOIC	Pgtg	Pgtg	Coarsely crystalline, black layered quartzite, minor marble and pegmatite. Proo unit II				
		Pgtg	Silicified coarse quartz porphyry, amphibolite and amphibolite gneiss, mafic base schist and gneiss, garnet-biotite schist, calcareous quartzite. Includes minor leuco-orthogneiss. Proo unit I				
PROTEROZOIC AND PALEOZOIC	Pm	Pm	MICHIGAN GNEISS: grey massive base granodiorite (proo) gradational westward with Egn, but not overprinted by the Eocene event that affected the rocks near the Chertan Fault. May be equivalent or related to Pgl. May include equivalents of ODa. Age unknown				
		Pm					

Outcrop boundary	-----
Probable stratigraphic contact, location approximate	.....
Geological contact, relations unknown, possibly faulted	.....
Strike and dip of bedding	.....
Strike and dip of foliation	.....
Trend and plunge of lineation and minor folds	.....
Inferred fault, age and displacement unknown	.....
Inferred normal fault, age unknown, circle on downthrown side	.....
Inferred Eocene normal fault, circle on downthrown side	.....
Silt: inferred fault in metamorphosed rocks, roughly parallel to foliation	.....

in color and relatively unaltered except where skarned. Volcanic rocks are typically dark green and "intrusive dykes and sills" are typically light colored.

Rocks equivalent? to the Rossland Group, consisting of flow breccias, volcanic breccias, andesites, basalts, agglomerates, tuffs, black laminated siltstones, and augite porphyry, outcrop throughout the property.

Biotite hornblende granodiorite of the Late Jurassic - Early Cretaceous Nelson intrusives cut both the Rossland Group and the Mt. Roberts Formation.

Nelson intrusive rocks have been subsequently intruded by Middle Eocene Coryell, coarse grained syenite, and quartz monzonite. Granites and monzonites of Coryell age are also common along with numerous hypabyssal prophyritic phases.

## 2.2 GENERAL GOLD MINERALIZATION

Gold bearing fissure quartz veins have been found on the Burnt Basin side at the Motherlode, Kittie, Aldeen, Tammany and Tunnel group claims. Reported gold values have ranged from a trace to 22 grams per ton.

Most of the Burnt Basin (Figure #5) gold production has come from sulfide rich calc-silicate skarn bodies in a

WOODS

EC

Bonanza 7

Bonanza

BONANZA PASS

Bonanza

ENTERPRISE

ODS

EC

INLAND EMPIRE

Bonanza 9

mjg

Bonanza 2

Creek

Bonanza 5

NUCKETT

ODS

Bonanza 3

Bonanza 4

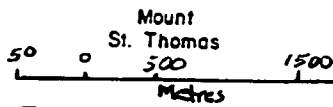
Bonanza 6

ODS

EC

BURNING BASIN

Molly Creek



PROPERTY GEOLOGY - PAULSON

H. HOENH GRAND FORKS

ODS - Schist, thin bedded argillaceous limestone  
Slate and Metamorphosed equivalents  
Marble, biotite diopside skarn

mjg - Nelson plutonic rocks

EC - Coryell Syenite

Scale 1:50,000

FIGURE 5.

Mc Rae Creek

Wells Cr.

Lawrence Cr.

Oliver Cr.

Paulson

Coryell Creek

Creek

Boel Cr.

State

3

6



silicious limestone unit at the Molly Gibson group claims. Sulfides include pyrrhotite, pyrite and chalcopyrite. Magnetite is also present in the skarn aureole, but is usually a minor constituent except in the base metal "replacement" ore bodies where it forms bands of massive magnetite up to 2.0 meters thick.

Skarnification evidenced in the limestone of the Mt. Roberts Formation and Rossland volcanic units, appears to be intensely telescoped. It is common to go from coarse marble to garnetite within a few meters along strike of the altered beds and from calcite epidote skarn to garnet magnetite skarn in less than one meter within the highly fractured volcanics.

### 3.0 1994 WORK and EXPLORATION PROGRAM (Figure #6)

#### 3.1 PHYSICAL WORK

Fallen trees were cleared and bucked into lengths along the Molly Gibson 1990 claim access road, which parallels the north slope of Molly Creek. Debris dams at the portal of the Bob Miller and Purcell adits were breeched, and trapped water was allowed to drain from the adits. All of this work was done in anticipation of being able to drill underground in the Bob Miller adit during the late fall of



1994. Early snow along with permit delays prevented the drilling program from being carried out in 1994.

### 3.2 GEOCHEMICAL EXPLORATION

From a north trending line starting 100 meters west of the southeast corner post of the Molly Gibson 1990 claim, 30 rock chip samples were collected along 1100 meters of the 1500 meter line from outcrops deemed to be of interest in gold exploration (Figure #7). This line lies approximately 400 to 600 meters below gold showings on the Molly Gibson 1990 claim. Details of the rock chip description resulting gold assays are as follows:

Empire 01-106R	Thin glassy quartz vein with trace of pyrite Syenite host. Trace magnetite. 110ppb Au.
Empire 02-143R	Pale brown and cream colored pyritic mylonite, pyrite, pyrrhotite?, chalcopyrite?, all fractured controlled. Abundant calcite along fractures and disseminations.
Empire 03-174R	Light gray coarse marble. actinolite, pyrite to 0.5%, trace chalcopyrite.
Empire 04-176R	Dark gray thinly banded marble with trace of pyrite.

- Empire  
05-185R Altered calcareous argillite? with fairly fresh biotite and finely divided Phlogopite.
- Empire  
06-215R Argillaceous marble with pyrite to 0.5% and traces of Chalcopyrite minor to moderate iron oxide stain. 15ppb Au.
- Empire  
07-230R Dark gray, biotite rich silicified rock with actinolite - relic feldspar, igneous texture with very fine crystalline quartz diorite.
- Empire  
08-230R Same as above 07-230R with Propylitic alteration, reddish brown to black biotite books, epidote and calcite primary texture destroyed, altered quartz diorite. Trace of pyrite.
- Empire  
09-244R Light gray pyritic very very fine grained clastic - siltstone?. Outcrop abundant iron Oxide. Actinolite knots.
- Empire  
10-250R Black pyrite Argillite with trace Chalcopyrite (Bornite?)
- Empire  
11-263R Same as above 10-250R. More massive with fine black biotite and trace+ sulfides, Pyrite?, possible trace chalcopyrite?
- Empire  
12-275R Reddish brown, iron Oxide stained, propylitically altered intrusive? near contact with black argillite. Coarsening of grain size, Trace+ pyrite, thin calcite veinlets and a few quartz veinlets with calcite boundaries.

- Empire  
13-300R Dark gray fine crystalline marble with black argillite partings. Trace of pyrite. 110ppb Au
- Empire  
14-317R Light to dark gray and cream; fractured siliceous, pyritic Mylonite, up to 1% plus soft unidentified black mineral. Trace Actinolite and Calcite - discontinuous fragmented sections of rock. Some fragments display strong plastic flow structure - No obvious boudins. Similar to 02-143R. 15ppb Au.
- Empire  
15-330R Dark gray diorite with up to 5% disseminated pyrite accessories include biotite.
- Empire  
16-356R Dark Gray to black calcareous Tuff? 50-70% trace++ pyrite.
- Empire  
17-394R Altered intrusive dark gray Trace pyrite abundant fairly fresh biotite - diorite. Mafic dyke?
- Empire  
18-465R SAA 17-394R. Dark gray - reddish brown very fine crystalline with fine biotite and coarse pheno books of black biotite. Trace++ pyrite, dioritic. Mafic dyke.
- Empire  
19-500R White speckled green phenocrysts of feldspar and chloritic hornblende in a white aphanitic matrix with trace of pyrite/syenite.
- Empire  
20-500R Dark gray, biotite, diorite, trace of pyrite, trace chloritic "eyes", manganese along fractures.

- Empire  
21-514R Dark to light gray porphyritic diorite, siliceous with trace of pyrite, minor brecciated fragments of phyllite in the most siliceous rock. Near contact? 50ppb Au.
- Empire  
22-627R Light gray finely crystalline, weakly silicified pyritic limestone with coarse calcite veinlets and trace of copper sulfide.
- Empire  
23-646R Light gray crystalline marble, trace++ of pyrite and thin lenses of biotite.
- Empire  
24-650R Light gray, mottled, silicified, propylitically altered diorite? with trace+ pyrite - feldspar? ghosts, biotite, trace of skarnification.
- Empire  
25-666R Cryptocrystalline garnet, diopside, epidote skarn with trace+ of pyrite and trace of Wallastonite. Appears to be a single skarn event, not much overgrowth or coarse crystal mineral/Limestone.
- Empire  
26-700R Light reddish brown fine crystalline intrusive, matrix of silica and biotite with feldspar phenocrysts - Syenite?, 85ppb Au.
- Empire  
27-330R Mottled light to dark gray and reddish brown feldspar porphyry with 1-3% disseminated pyrite.
- Empire  
28-796R Very dark gray to black, fairly fresh feldspar porphyry with epidote veinlets. Trace amounts of cryptocrystalline garnet. Up to 0.5% disseminated pyrite with Trace of magnetite.
- Empire  
29-813R Same as above. Empire 28-796R.

Empire  
30-1093R

Mottled light-dark gray to reddish brown diorite (tonalite?) altered feldspar phenocrysts in biotite matrix. Trace pyrite.

## 2.6 CONCLUSIONS

Road maintenance and clearing as well as some adit rehabilitation will have to be done again in the spring prior to the now permitted underground drilling.

Six of the thirty rock chip samples collected showed elevated gold. Common factor appears to be silicification, parpylitic alteration, sulfides, and skarnification.

## 2.7 RECOMMENDATION

Try to complete the 1992, 1993 recommendations found in the Crown 1992-93 Assessment Report which are as follows:

1. Continue basic exploration north and west of the present Molly Gibson 1990 grid.
2. Drill three core holes from underground in the Bob Miller adit, down dip and along strike of the gold bearing structure located approximately 95

meters southerly from the adit portal.

3. Additionally, the six rock chip samples with detectable gold found in the 1994 sampling program should be followed up with mapping along lines, as well as additional infill rock chip sampling. This should be followed by soil sampling if warranted.

Respectfully submitted



R.E. Miller

The seal is circular and contains the text: "R. E. MILLER", "P. E. D. M.", and "SOCIETY".



APPENDIX A  
STATEMENT OF EXPENDITURES

MOLLY GIBSON 1990 CLAIM  
STATEMENT OF EXPENDITURES

Manpower		
	Bob Miller - geologist 3 days @\$250.00/day	\$ 750.00
	John Kemp - Prospector 4 days @\$175.00/day	700.00
	Justin Vanhoogust - Prospector School Student 2 days @\$0.00/day	000.00
	Kim Anshetz - Labour 2 days @\$120.00/day	240.00
	George Anshetz - Labour 2 days @\$120.00/day	240.00
Vehicles		
	9 Truck days @\$65.00/day	585.00
Rental Equipment - with fuel		
	2 Chain saws 2 days @\$25.00/day	100.00
Assays		
	30 Rock Chips @\$14.00/sample	420.00
Report, Shipping, General Office		500.00
		-----
	Total	\$3535.00


APPENDIX B  
STATEMENT OF QUALIFICATIONS

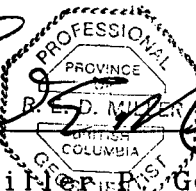
STATEMENT OF QUALIFICATIONS

I ROBERT E. MILLER, of Spokane, Washington U.S.A., DO  
HEREBY CERTIFY:

1. THAT I am a consulting geologist with a business address of 367 Gold Street, Greenwood, British Columbia. VOH 1J0.
2. THAT I am a graduate from Brigham Young University with a Bachelor of Science degree in Geological Engineering (1969).
3. THAT I have practised my profession continuously since graduation.
4. THAT I personally conducted the 1994 exploration program discussed in this report.
5. THAT I am a Director and Shareholder of Gold City Resources. Neither Mr. Miller or Gold City Resources currently have an interest in this property. I am, however in the process of negotiations with Mr. Hoehn to obtain an option on the Molly Gibson 1990 claim.

DATED this 1<sup>st</sup> day of February, 1995.

  
Robert E. Miller, P. Eng. Geo.  
Geological Engineer



APPENDIX C

REFERENCES

## REFERENCES

- British Columbia Minister of Mines Annual Report, 1901; pg. 106, 1904; pg, 299.
- Crowe, Gregory G., M.Sc. P.Geol. and Forbes, Jonna R. B.Sc., 1985 Geological, Geochemical and Geophysical Report on the Granville Mountain Property of Prominent Resources Corporation B.C. Assessment Report 14733.
- Fox, M., B.Sc., F.G.A.C. Geological and Geochemical Report on the Molly Gibson Property owned by Herman Hoehn B.C. Assessment Report 11,989.
- Miller, R.E., 1992, Airborne Geophysical Survey on the Paulson Project, British Columbia, Assessment Report on the Bonanza Group.
- Miller, R.E. , 1992, Airborne Geophysical Survey on the Paulson Project, British Columbia, Assessment Report on the Orion Group
- Miller, R.E., 1992 Summary Report on the Laferty Group. Assessment Report Prepared for Crown Resources.
- Ruzicka, Stan, Personal communication, Maps, and Records 1991.
- Shear, H.H., 1973 Progress Report on Donna Mines, November 1973.
- Templeman-Kluit, D.J., 1989: Geology, Penticton, British Columbia, Geological survey of Canada. Map 1736A. Scale 1:250,000.
- Von Einsiedel, C.A., 1989, Prospecting Report Josh Claim Group, Assessment Report 18560.

APPENDIX D

ASSAYS



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

J: MILLER, ROBERT

P.O. BOX 2941  
GRAND FORKS, BC  
V0H 1H0

A9431266

Comments:

**CERTIFICATE**

**A9431266**

(LJP) - MILLER, ROBERT

Project: SPRUCE PROP

P.O.#:

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 28-NOV-94.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	30	Geochem ring to approx 150 mesh Crush and split (6-10 pounds)
294	30	

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	30	Au ppb: Fuse 10 g sample	FA-AAS	5	10000





# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221

J: MILLER, ROBERT

P.O. BOX 2941  
GRAND FORKS, BC  
V0H 1H0

Project : SPRUCE PROP  
Comments:

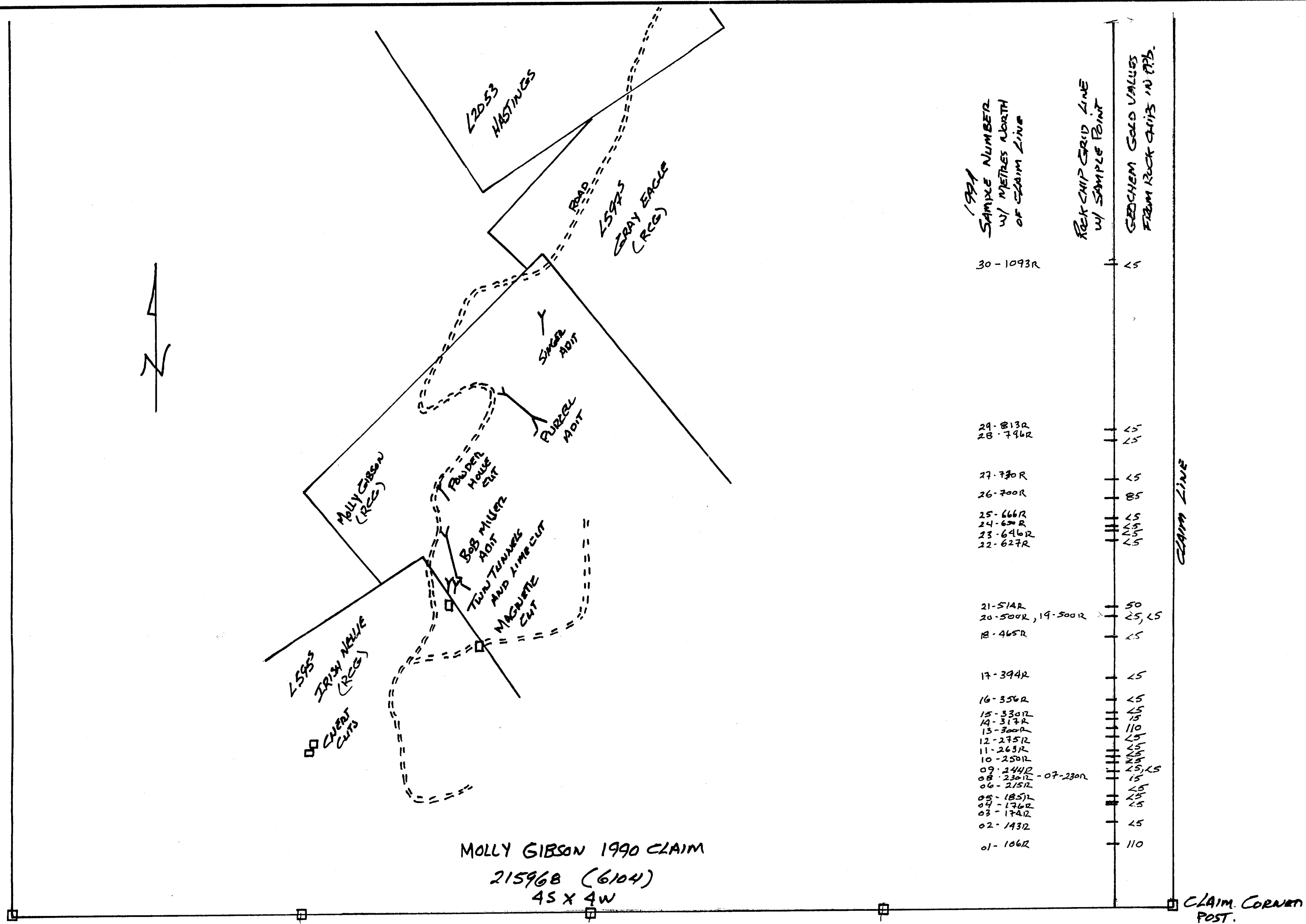
Page : 1  
Total Pages : 1  
Certificate Date: 25-NOV-94  
Invoice No. : I9431266  
P.O. Number :  
Account : LJP

## CERTIFICATE OF ANALYSIS A9431266

SAMPLE	PREP CODE	Au ppb FA+AA									
EMPIRE01-106R	205 294	110									
EMPIRE02-143R	205 294	< 5									
EMPIRE03-174R	205 294	< 5									
EMPIRE04-176R	205 294	< 5									
EMPIRE05-185R	205 294	< 5									
EMPIRE06-215R	205 294	15									
EMPIRE07-230R	205 294	< 5									
EMPIRE08-230R	205 294	< 5									
EMPIRE09-244R	205 294	< 5									
EMPIRE10-250R	205 294	< 5									
EMPIRE11-263R	205 294	5									
EMPIRE12-275R	205 294	< 5									
EMPIRE13-300R	205 294	110									
EMPIRE14-317R	205 294	15									
EMPIRE15-330R	205 294	< 5									
EMPIRE16-356R	205 294	< 5									
EMPIRE17-394R	205 294	< 5									
EMPIRE18-465R	205 294	< 5									
EMPIRE19-500R	205 294	< 5									
EMPIRE20-500R	205 294	< 5									
EMPIRE21-514R	205 294	50									
EMPIRE22-627R	205 294	< 5									
EMPIRE23-646R	205 294	< 5									
EMPIRE24-650R	205 294	< 5									
EMPIRE25-666R	205 294	< 5									
EMPIRE26-700R	205 294	85									
EMPIRE27-770R	205 294	< 5									
EMPIRE28-796R	205 294	< 5									
EMPIRE29-813R	205 294	< 5									
EMPIRE30-1093R	205 294	< 5									

CERTIFICATION:

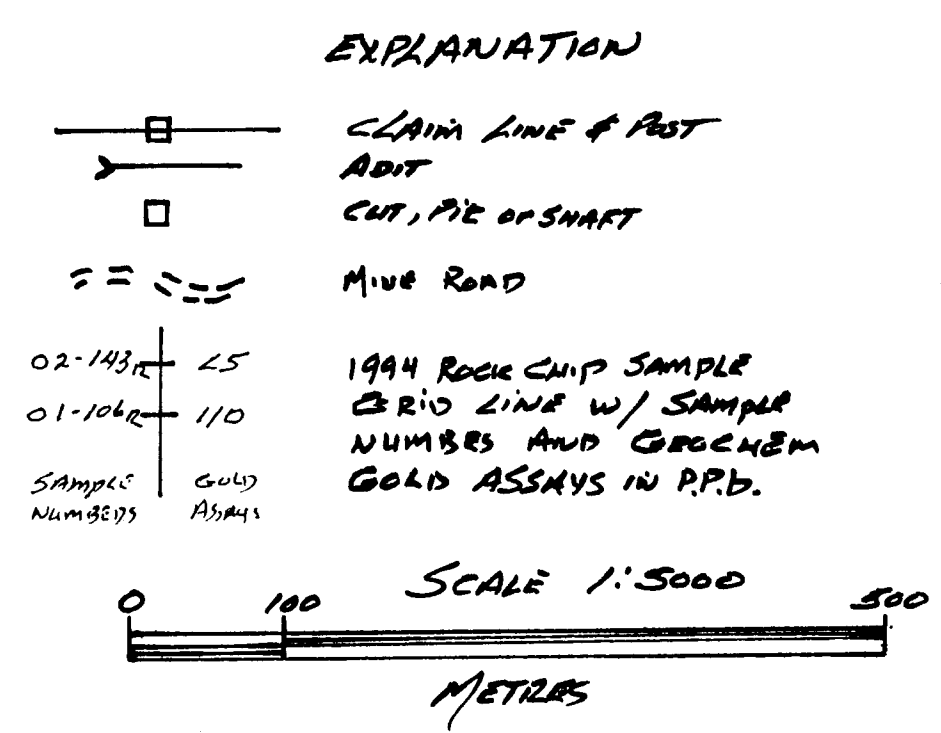
*Frank Vornh*



MOLLY GIBSON 1990 CLAIM  
21596B (6104)  
45 X 4W

1994 SAMPLE NUMBER w/ METRES NORTH OF CLAIM LINE	ROCK CHIP GRID LINE w/ SAMPLE POINT	GEOCHEM GOLD VALUES FROM ROCK CHIPS IN P.P.B.
30-1093R	45	
29-813R	45	
28-796R	45	
27-730R	45	
26-700R	85	
25-666R	45	
24-600R	45	
23-646R	45	
22-627R	45	
21-514R	50	
20-500R, 19-500R	45, 45	
18-465R	45	
17-394R	45	
16-356R	45	
15-330R	45	
14-317R	45	
13-300R	45	
12-275R	45	
11-263R	45	
10-250R	45	
09-244R	45, 45	
08-230R	45	
07-230R	45	
06-215R	45	
05-185R	45	
04-176R	45	
03-174R	45	
02-143R	45	
01-106R	110	

CLAIM CORNER POST.



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

23,753

REVISIONS	BY

HIERMAN HOEHN - MOLLY GIBSON 1990 CLAIM  
GREENWOOD MINING DIVISION  
1994 ROCK CHIP SAMPLE LOCATION AND GOLD ASSAYS

FIGURE 7

Date	JAN 1995
Scale	1:5000
Drawn	HOHN
Job	HOHN
Sheet	1
Of	1 Sheets