

MINFILE NUMBER: **092GNE001**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROY, INDIAN RIVER**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 36 33 N
LONGITUDE: 122 58 38 W
ELEVATION: 518 Metres

NORTHING: 5495178
EASTING: 501646

LOCATION ACCURACY: Within 500M

COMMENTS: Southern adit on Roy #1 claim (Lot 2771) (Property File - claim sheet map).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Sphalerite
ASSOCIATED: Chlorite Quartz
ALTERATION: Chlorite Quartz
ALTERATION TYPE: Chloritic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Breccia Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Tabular
DIMENSION: 0090 x 0001 Metres STRIKE/DIP: 140/25W TREND/PLUNGE:
COMMENTS: Mineralized shear zone.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

DATING METHOD: Fossil

MATERIAL DATED: Various fossils

Upper Jurassic

Coast Plutonic Complex

LITHOLOGY: Dacitic Lapilli Tuff
Dacitic Tuff Breccia
Dike
Greenstone
Dacitic Pyroclastic
Andesitic Pyroclastic

HOSTROCK COMMENTS: Gambier Group ranges from Upper Jurassic to Lower Cretaceous and the Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Gambier

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

COMMENTS: Situated in a roof pendant in the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1917

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

54.8000

Grams per tonne

Copper

12.4000

Per cent

COMMENTS: Chip sample across 2.4 metres. Trace gold.

REFERENCE: Minister of Mines Annual Report 1916, page 368.

CAPSULE GEOLOGY

Polymetallic sulphide mineralization outcrops on the northeast side of Indian River (Roy Creek), 2.3 kilometres south of Clarion Lake and 16.5 kilometres southeast of Squamish.

A mineralized zone is developed in chlorite altered dacitic lapilli tuffs and tuff breccias ("greenstone"). These occur within a sequence of rhyolite and dacitic to andesitic pyroclastics of the Upper Jurassic to Lower Cretaceous Gambier Group. The sequence lies near the south end of the Indian River roof pendant, which occurs within Late Jurassic diorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex.

CAPSULE GEOLOGY

The zone contains massive chalcopyrite stringers, up to 12 centimetres wide, disseminated chalcopyrite and pyrite in a matrix of black chlorite, disrupted quartz veins, and brecciated wall rock. Chalcopyrite rich mineralization occurs over widths of up to 0.5 metres. The zone strikes 140 degrees for at least 90 metres and dips 25 degrees southwest. Mineralization becomes more intense over a 214 metre area where the zone is cut by a dyke striking perpendicular to the zone. The mineralization consists of chalcopyrite, pyrite, and minor sphalerite occurring as blebs up to 7 centimetres in diameter. A chip sample taken along 2.4 metres assayed trace of gold, 54.8 grams per tonne silver and 12.4 per cent copper (Minister of Mines Annual Report 1916, p. 368).

In the general vicinity, silicified fracture zones in greenstone (chloritized rhyolite) are, locally, weakly mineralized with pyrite and occasionally chalcopyrite.

BIBLIOGRAPHY

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EMPR PF (Claim sheet map - Indian River Area)
GSC MAP 199A; 1069A; 1151A; 1386A
GSC MEM *158, pp. 115,116; 335, pp. 47-54,58,61,62
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195, 90-1F, pp. 95-107
GSC SUM RPT *1917, Part B, pp. 24,25
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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE002**

NATIONAL MINERAL INVENTORY:

NAME(S): **MONEY SPINNER, FIRE MOUNTAIN, INFERNO,
FM, RES, MONEYSPINNER**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:
LATITUDE: 49 51 23 N
LONGITUDE: 122 23 45 W
ELEVATION: 1524 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Surface showing (Fieldwork 1985, page 125).

Underground
MINING DIVISION: New Westminster
UTM ZONE: 10 (NAD 83)
NORTHING: 5522839
EASTING: 543428

COMMODITIES: Gold Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Gold
ASSOCIATED: Quartz Calcite Chlorite
ALTERATION: Malachite Dolomite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins
SHAPE: Tabular
MODIFIER: Folded Faulted
DIMENSION: 300 x 1 Metres STRIKE/DIP: 170/50W
COMMENTS: The vein, 0.9 to 1.3 metres wide, strikes 170 to 182 degrees and dips 40 to 65 degrees west for at least 300 metres. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD:	Fossil		
MATERIAL DATED:	Various fossils		
Lower Cretaceous	Fire Lake	Peninsula	
LITHOLOGY:	Volcaniclastic Sandstone Feldspathic Greywacke Porphyritic Greenstone Porphyritic Dike		

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Hosted in an island arc sequence preserved in a roof pendant.
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1991
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 2.5000 Grams per tonne
Gold 0.2100 Grams per tonne
Copper 0.3500 Per cent
COMMENTS: Sample 50704 taken from malachite stained quartz outcrop above the Money Spinner adit.
REFERENCE: Assessment Report 21735.
ORE ZONE: UNDERGROUND WORKINGS REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1897
SAMPLE TYPE: Bulk Sample
COMMODITY GRADE
Gold 127.0000 Grams per tonne
COMMENTS: Average grade of 90 kilogram bulk sample.
REFERENCE: Minister of Mines Annual Report 1897, page 579.

CAPSULE GEOLOGY

The Money Spinner occurrence is situated on the southwest flank of Fire Mountain at 1524 metres elevation above Fire Lake, 21.5 kilometres northwest of the northwest end of Harrison Lake.

The Money Spinner is the most important of a cluster of copper-gold quartz vein mineral occurrences on the southwestern flank of Fire Mountain. A 90.72 kilogram test shipment was sent to San Francisco in 1897, with another 1360 tonnes stockpiled (Minister of Mines Annual Report 1897, page 579). A Huntingdon quartz mill was also erected on the property but found to be inadequate to crush the hard rock. A number of other production attempts were made in the 1930s. In 1938, clean-up of the stamp mill resulted in 6750 grams of gold and 1524 grams of silver. In the 1970s and 1980s, the area was explored for its base metal potential. In 1983, a number of very low frequency electromagnetic and high magnetic anomalies were outlined over Fire Mountain. Kidd Creek Mines also outlined a number of stream sediment anomalies. In 1987, Plaskey Development Enterprises conducted a prospecting program over part of the property and discovered a strongly pyrite-clay-silica-altered gossanous zone. In 1990, Burmin Resources entered into a joint venture with Plaskey Development Enterprises. Geological mapping and geochemical sampling were conducted. In 1991, a follow-up program was carried out.

Regionally, the Money Spinner showing is hosted in a belt of volcanic and sedimentary rocks of the Lower Cretaceous Fire Lake Group, which extends northwest from Harrison Lake for 40 kilometres. The Fire Lake Group is an island arc sequence preserved in a roof pendant, which occurs mostly west of the Lillooet River near the eastern margin of the Jurassic to Cretaceous Coast Plutonic Complex. The assemblage has been subjected to thrust faulting, large amplitude folding and regional metamorphism up to greenschist facies. Immediately to the east of the Money Spinner occurrence in the Lillooet Valley, the Harrison Lake shear zone and related structures are interpreted as important mineral controlling structure.

The Peninsula and Brokenback Hill formations of the Fire Lake Group are recognized at the Money Spinner showing. The Peninsula Formation consists of a lower conglomerate and upper interbedded arkose and pyritic slate. The overlying Brokenback Hill Formation consists of four lithological units. The lowest unit is composed of interbedded feldspar crystal tuff with slate or phyllite. This unit is overlain by andesitic to intermediate volcanic rocks, which are in turn overlain by coarse grained volcaniclastic sandstone. Pyroclastic rocks dominated by lapilli tuffs comprise the remaining unit. These rocks have been affected by three phases of deformation.

A banded fissure vein, 0.9 to 1.3 metres wide, strikes 170 to 182 degrees for at least 300 metres and dips 40 to 65 degrees west. The vein cuts volcaniclastic sandstone and feldspathic greywacke 'porphyritic greenstone' of the Brokenback Hill Formation. The vein is occasionally cut by porphyritic dikes.

The Money Spinner vein is composed of layers of white quartz, 0.5 to 2.5 centimetres wide, separated by thin partings of sheared, blue to black chlorite. The quartz is locally intergrown with calcite and dolomite. Mineralization consists of variable amounts of chalcopyrite with traces of bornite and native gold. Malachite staining is present. The vein and layer margins are strongly slickensided giving the impression that veins and mineralization are fracture/shear controlled.

A chip sample taken across a 0.9 metre width assayed 5.5 grams per tonne gold (Minister of Mines Annual Report 1934, page F16). A 90 kilogram bulk sample averaged 127 grams per tonne gold (Minister of Mines Annual Report 1897, page 579). Two surface samples were taken in 1991. Sample 50704, from malachite stained quartz, yielded 0.21 gram per tonne gold, 2.5 grams per tonne silver and 0.35 per cent copper (Assessment Report 21735).

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1901-1232; 1920-220; 1921-231; 1930-314; *1934-F15,F16
EMPR ASS RPT 11796, 21036, *21735
EMPR BC METAL MM00224
EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; *1985, pp. 120-131
EMPR INDEX 3-206
EMPR PF (*Richmond, A.M. (1935): Preliminary Report on the Property
of the Money Spinner Gold Mines Ltd., with accompanying claim
sheet maps)
GSC MAP 1069A; 1151A
GSC MEM 335, pp. 42-44,191,192
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195,
197-204; 90-1F, pp. 95-107
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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 5
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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE003**

NATIONAL MINERAL INVENTORY:

NAME(S): **BARKOOLA**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 51 57 N
LONGITUDE: 122 24 11 W
ELEVATION: 1615 Metres

NORTHING: 5523884
EASTING: 542900

LOCATION ACCURACY: Within 500M

COMMENTS: Center of Barkoola claim (Lot 2067) (NTS Map 92G/16, Edition 2).

COMMODITIES: Gold Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Gold

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0008 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Series of parallel veins and lenses occur in a zone up to 7.6 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Lower Cretaceous

Fire Lake

Brokenback Hill

DATING METHOD: Fossil

MATERIAL DATED: Various fossils

LITHOLOGY: Volcaniclastic Sandstone
Feldspathic Greywacke
Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Gambier

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

COMMENTS: Hosted in an island arc sequence preserved in a roof pendant.

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1934

SAMPLE TYPE: Channel

COMMODITY

GRADE

Gold

1.4000

Grams per tonne

COMMENTS: Average of 3 channel samples across 0.46 metres.

REFERENCE: Minister of Mines Annual Report 1934, page F16.

CAPSULE GEOLOGY

The Barkoola showing is located 1.5 kilometres west-northwest of the peak of Fire Mountain, 22.5 kilometres northwest of the north end of Harrison Lake. The Money Spinner occurrence (92GNE002) lies 1.2 kilometres southeast of this showing.

A number of parallel fissure veins and lenses, up to 0.6 metres wide, occupy a zone which is up to 7.6 metres wide. The zone occurs in volcaniclastic sandstone and feldspathic greywacke ("greenstone") of the third member of the Lower Cretaceous Brokenback Hill Formation (Fire Lake Group).

The veins and lenses are composed of white quartz containing traces of chalcopyrite, pyrite, and sporadic native gold. Three channel samples, taken across 0.46 metres in an adit, averaged 1.4 grams per tonne gold (Minister of Mines annual Report 1934, p. F16).

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EMPR ASS RPT 11796
EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE004**

NATIONAL MINERAL INVENTORY:

NAME(S): **BLUE LEAD**

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 52 33 N
LONGITUDE: 122 24 15 W

NORTHING: 5524996
EASTING: 542811

ELEVATION: 1676 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Location centred on surface trace of main vein (Fieldwork 1985, page 125).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Chalcopyrite Gold
ASSOCIATED: Quartz Chlorite Sericite Hematite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Discordant
CLASSIFICATION: Hydrothermal
SHAPE: Tabular
DIMENSION: 0024 x 0001 Metres STRIKE/DIP: 085/43N TREND/PLUNGE:
COMMENTS: Deposit dimension is 24 by 0.6 metres.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Brokenback Hill	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			

LITHOLOGY: Volcaniclastic Sandstone
Feldspathic Greywacke
Porphyritic Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Situated in an Island arc sequence preserved in a roof pendent.

INVENTORY

ORE ZONE: DUMP REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1934
SAMPLE TYPE: Grab
COMMODITY: Gold GRADE: 1.4000 Grams per tonne
COMMENTS: Grab sample from dump.
REFERENCE: Minister of Mines Annual Report 1934, page F16.

CAPSULE GEOLOGY

The Blue Lead prospect is located on the northwest flank of Fire Mountain, 23.5 kilometres northwest of the northwest end of Harrison Lake. The Money Spinner vein (092GNE002) is 2.5 kilometres to the south.

The occurrence is hosted in a belt of volcanic and sedimentary rocks, of the Lower Cretaceous Fire Lake Group, which extends northwest from Harrison Lake for 40 kilometres. The Fire Lake Group is an island arc sequence preserved in a roof pendant, which occurs mostly west of the Lillooet River, near the eastern margin of the Jurassic to Tertiary Coast Plutonic Complex. The assemblage has been subjected to thrust faulting, large amplitude folding and regional metamorphism up to greenschist facies.

Four subparallel veins are hosted in volcaniclastic sandstone and feldspathic greywacke ("porphyritic greenstone") of the third member of the Brokenback Hill Formation. The veins, 18 to 24 metres in length and up to 0.6 metres wide, strike 085 degrees and dip

CAPSULE GEOLOGY

between 43 and 46 degrees north. The largest vein varies from 20 to 60 centimetres in width.

The main vein is comprised of banded white quartz that contains thin dark chloritic laminae that are parallel to the sharp walls of the vein. Mineralization consists of minor chalcopyrite and traces of native gold, accompanied by traces of sericite and hematite. A grab sample from a dump assayed 1.4 grams per tonne gold (Minister of Mines Annual Report 1934, p. F16).

A 10 metre decline was driven into the main vein in 1930.

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EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
GSC MAP 1069A; 1151A; 1386A
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE005**

NATIONAL MINERAL INVENTORY:

NAME(S): **KING NUMBER 1**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 51 16 N
LONGITUDE: 122 23 31 W
ELEVATION: 1524 Metres

NORTHING: 5522625
EASTING: 543709

LOCATION ACCURACY: Within 500M

COMMENTS: Quartz vein on King claim (Property File - Claim Map).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Gold
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0015 x 0001 Metres
COMMENTS: Veins, exposed over 15 metres, vary from 0.15 to 0.61 metres in width.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD:	Fossil		
MATERIAL DATED:	Various fossils		

LITHOLOGY: Volcaniclastic Sandstone
Feldspathic Greywacke
Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Island arc sequence preserved in a roof pendant.

PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

CAPSULE GEOLOGY

The King Number 1 showing is located 1.0 kilometre southwest of the peak of Fire Mountain and 21 kilometres northwest of the north-west end of Harrison Lake. The Money Spinner occurrence (092GNE002) is approximately 400 metres to the northwest.

A series of short quartz veins occurs in volcaniclastic sandstone and feldspathic greywacke ("greenstone") of the third member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The veins are exposed over a total distance of 15 metres and vary from 0.15 to 0.61 metres in width.

A chip sample from fourteen of the veins assayed trace gold (Minister of Mines Annual Report 1934, p. F17).

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EMPR PF (claim sheet maps)
GSC MAP 1069A; 1151A; 1386A
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GSC OF 2203
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE005**

MINFILE NUMBER: **092GNE006**

NATIONAL MINERAL INVENTORY:

NAME(S): **RICHFIELD**, FIRE LAKE

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 51 22 N
LONGITUDE: 122 25 28 W
ELEVATION: 1106 Metres

NORTHING: 5522792
EASTING: 541371

LOCATION ACCURACY: Within 500M

COMMENTS: Located 500 metres northwest of the west end of Fire Lake, about 90 metres above the lake (Minister of Mines Annual Report 1934, p. F16).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Tabular
DIMENSION: 0034 Metres STRIKE/DIP: 090/26N TREND/PLUNGE:
COMMENTS: The vein, up to 0.36 metres wide, has been traced along strike for 33.5 metres.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	

DATING METHOD: Fossil
MATERIAL DATED: Various fossils

LITHOLOGY: Volcaniclastic Sandstone
Feldspathic Greywacke
Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Island arc sequence preserved in a roof pendant.

INVENTORY

ORE ZONE: SHAFT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1934
SAMPLE TYPE: Channel
COMMODITY: Gold GRADE: 0.6900 Grams per tonne
COMMENTS: Two channel samples taken across average width of 0.318 metres.
REFERENCE: Minister of Mines Annual Report 1934, page F16.

CAPSULE GEOLOGY

The Richfield showing is located 500 metres northwest of the west end of Fire Lake and 3 kilometres west-southwest of the peak of Fire Mountain.

A quartz vein cuts volcaniclastic sandstone and feldspathic greywacke ("greenstone") of the third member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The vein, 0.15 to 0.36 metres wide on the surface, strikes 090 degrees for 33.5 metres and dips 26 degrees north. A 10.3 metre shaft shows that the vein pinches out at a depth of 4.6 metres.

Two channel samples, taken across an average width of 0.318 metres 3.0 metres down the shaft, assayed 0.69 grams per tonne gold (Minister of Mines Annual Report 1934, p. F16).

The vein was explored by Richfield Cariboo Gold Mines in the early 1930's.

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EMPR AR *1934-F16
EMPR ASS RPT 11796

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MINFILE MASTER REPORT
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ENERGY AND MINERALS DIVISION

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GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195,
197-204; 90-1F, pp. 95-107
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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/15

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE007**

NATIONAL MINERAL INVENTORY: 092G11 Cu4

NAME(S): **BULLIONDALE** LADY OF THE LAKE (L.4654), INDIAN RIVER,
BULLIONDALE NO. 1-3(L.4649-51), BULLIONDALE NO. 5 (L.4653)

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W 092G11E
BC MAP:
LATITUDE: 49 36 26 N
LONGITUDE: 122 59 26 W
ELEVATION: 610 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Adit (GSC Summary Report 1917B, page 24).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5494961
EASTING: 500682

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz
COMMENTS: Silicified limestone.
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Replacement Epigenetic Hydrothermal
DIMENSION: 0009 Metres STRIKE/DIP:
COMMENTS: Mineralized zones, up to 9 metres wide, strike northwest. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Felsic Porphyritic Dike
Limestone
Andesitic Volcanic

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
COMMENTS: A roof pendant in the southern Coast Plutonic Complex. PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: ADIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1917
SAMPLE TYPE: Chip
COMMODITY: Copper GRADE: 0.5000 Per cent
COMMENTS: Across 0.9 metres.
REFERENCE: Minister of Mines Annual Report 1917, page 278.

CAPSULE GEOLOGY

Low grade copper mineralization outcrops on the southwest side of the Indian River (Roy Creek), near its headwaters, 16 kilometres southeast of Squamish.

The Bulliondale showing is hosted in a sequence of andesitic volcanics of the Lower Cretaceous Gambier Group, near the south end of the Indian River roof pendant. The pendant is enclosed in Late Jurassic quartz diorite and diorite of the Tertiary to Jurassic Coast Plutonic Complex.

Pyrite and chalcopyrite occur along a silicified limestone contact and in a felsic porphyritic dyke. Several similar northwest striking zones of mineralization, up to 9 metres wide, are exposed in a nearby adit. A chip sample, across 0.9 metres of a zone in the adit, assayed trace gold, trace silver and 0.5 per cent copper (Minister of Mines Annual Report 1917, p. 278).

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GSC MEM *158, pp. 114,115; 335, pp. 47-54,58,61,62
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE008**

NATIONAL MINERAL INVENTORY:

NAME(S): **STAVE RIVER**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 33 27 N
LONGITUDE: 122 17 41 W
ELEVATION: 732 Metres

NORTHING: 5489672
EASTING: 551007

LOCATION ACCURACY: Within 500M

COMMENTS: Location determined from GSC Map 1151A, occurrence #8.

COMMODITIES: Molybdenum Copper Silver

MINERALS

SIGNIFICANT: Molybdenite
COMMENTS: Copper and silver minerals not identified. Trace gold.
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0152 x 0023 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: The vein strikes northwest, for at least 152 metres, dips steeply north, and is 4.6 to 23 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 110 Ma
DATING METHOD: Uranium/Lead

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: Isotopic age date from GSC Paper 90-1F, page 99, Figure 2. The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
COMMENTS: Located near the south end of the Coast Plutonic Complex.

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1918
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Silver		13.7000	Grams per tonne
Copper		0.3000	Per cent
Molybdenum		1.5000	Per cent
COMMENTS:	Molybdenum assay given for molybdenite. Also, trace gold.		
REFERENCE:	Minister of Mines Annual Report 1918, page 289.		

CAPSULE GEOLOGY

Molybdenite mineralization occurs 1.5 kilometres northeast of Stave River, 13 kilometres north-northwest of the north end of Stave Lake.

A quartz vein, 4.6 to 23 metres wide, strikes northwest for at least 152 metres and dips steeply southwest. The vein cuts Late Cretaceous foliated quartz diorite of the Tertiary to Jurassic Coast Plutonic Complex.

Mineralization consists of irregularly scattered disseminations and blebs of molybdenite, up to 0.05 metres in diameter. A grab sample assayed 1.5 per cent molybdenite, 0.3 per cent copper, 13.7 grams per tonne silver and trace gold (Minister of Mines Annual Report 1918, p. 289).

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GSC MAP 1069A; 1151A; 1386A
GSC MEM 335, p. 191

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 16
REPORT: RGEN0100

BIBLIOGRAPHY

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DATE CODED: 1985/07/24
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE009**

NATIONAL MINERAL INVENTORY:

NAME(S): **KATANGA**, MAPLE LEAF, SWAN,
BOUNTY, EXPO

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 30 21 N
LONGITUDE: 122 34 34 W
ELEVATION: 274 Metres

NORTHING: 5483776
EASTING: 530689

LOCATION ACCURACY: Within 500M
COMMENTS: Centred on "110" adit (Assessment Report 13838, Geophysical Plan).

COMMODITIES: Gold Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Pyrrhotite Sphalerite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated Massive
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: 105 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 0006 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Shear zones, up to 6 metres wide, trend northwest.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 100 Ma
DATING METHOD: Uranium/Lead

LITHOLOGY: Quartz Diorite
Diorite
Granodiorite
Greenstone

HOSTROCK COMMENTS: Isotopic age date from GSC Paper 90-1F, p. 99, Fig. 2. The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
COMMENTS: Located near the south end of the Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Grab
COMMODITY GRADE
Gold 62.0000 Grams per tonne
COMMENTS: Highest assay.
REFERENCE: Assessment Report 13090, page 5.

CAPSULE GEOLOGY

Polymetallic mineralization is exposed on the east side of Pitt Lake in the vicinity of Vickers (Scott) Creek.

Mineralization is hosted in northwest trending shear zones and felsic dykes, up to 6 metres wide. These cut Early Cretaceous quartz diorite, diorite and granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The mineralized shears also cut greenstone inclusions.

The shear zones and dykes contain veins, lenses and disseminations of massive chalcopyrite, pyrite, pyrrhotite and sphalerite, up to 0.46 metres in width. Gold content is reported to range from 0.7 to 1.0 gram per tonne, with some assays as high 62 grams per tonne (Assessment Report 13090, p. 5). A grab sample, from the face of a 20.4 metre long adit, assayed 4.2 per cent copper, 51.4 gram per tonne silver, trace zinc and trace gold (Minister of Mines Annual Report 1926, p. 324, Sample 5).

The showing was initially prospected and explored underground between 1926 and 1930. Kennedy Silver Mines Ltd., conducted 252 metres of diamond drilling and 106 metres of trenching in 1968 and

CAPSULE GEOLOGY

1969.

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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE010**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAYFLOWER, DANDY, MONEY MAKER,**
JOE, DANDY GOLD

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:
LATITUDE: 49 57 12 N
LONGITUDE: 122 26 25 W
ELEVATION: 402 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Portal of adit (Assessment Report 11436, Figure 5).

Underground
MINING DIVISION: New Westminster
UTM ZONE: 10 (NAD 83)
NORTHING: 5533592
EASTING: 540152

COMMODITIES: Gold Silver Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena
COMMENTS: Rare blebs of sphalerite and galena.
ASSOCIATED: Quartz Calcite
ALTERATION: Chalcedony Clay
ALTERATION TYPE: Silicific'n Oxidation Leaching
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia Disseminated
CLASSIFICATION: Hydrothermal Epithermal
TYPE: H04 Epithermal Au-Ag-Cu: high sulphidation 105 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 60 x 40 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Gossanus zone.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Breccia
Rhyolitic Breccia
Rhyolite
Schist
Ultramafic
Quartzite
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Island arc sequence preserved as a roof pendant.

PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: TAILINGS REPORT ON: N
YEAR: 1981
CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Gold
GRADE: 10.6000 Grams per tonne
COMMENTS: Sample of mill tailings.
REFERENCE: Assessment Report 9326.

ORE ZONE: TRENCH REPORT ON: N
YEAR: 1989
CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Silver Gold Lead Zinc
GRADE: 1.7100 Grams per tonne
0.1400 Grams per tonne
0.3500 Per cent
0.3000 Per cent
COMMENTS: Chip sample 1075 across 1.1 metres from Trench 2 on the Dandy Gold claim.
REFERENCE: Assessment Report 20104.

CAPSULE GEOLOGY

The Mayflower showing is located 1.1 kilometres west of the Lillooet River and 3 kilometres northwest of the village of Skookumchuck.

The first gold discovery in the area was made in the 1800s as placer miners travelled through to the Cariboo Gold Fields. In 1904, the original Mayflower Group was staked and owned by Mayflower Mining and Milling Co. A 48-metre long adit was driven into the zone and a mill constructed. In 1929, the ground was restaked as the Dandy claim group. Little work was done and the ground was restaked again in the 1970s by G. Nagy as the Moneymaker. Limited geological and geophysical surveys, and exploration drilling were done before the claims lapsed. The area was restaked as the Easy claim group in 1981 and several anomalies were discovered. In 1988, an extensive drilling program was conducted on the anomalies along the southern border of the Mayflower claim, with encouraging results. At the request of Tyme Resources Ltd. in 1989, B.K. Geological Engineering Ltd. conducted an exploration program.

The area surrounding the Mayflower showing is underlain by the Jurassic Harrison Lake Formation and the overlying Lower Cretaceous Fire Lake Group. These rocks form a roof pendant, northwest of Harrison Lake, composed of three distinct stratigraphic units. The basal section consists of granulite, andesite, conglomerate, limestone and quartzite. The central unit consists of dark slates, shales, argillite and greywacke. The upper unit consists of clastic feldspathic greenstone, chlorite schist and minor conglomerate.

The occurrence is hosted in the fourth (uppermost) member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The member consists of lapilli tuff with minor rhyolite, andesite and volcanic breccia and is locally altered to schist in the vicinity of the Harrison Lake fault zone (Lillooet River fault). Fractures are well developed in closely spaced sets striking 006 degrees and dipping 75 degrees east and 062 degrees dipping 25 degrees southeast.

The showing consists of a gossanous, elliptical zone of brecciated rhyolitic schist which outcrops over a 60 by 40 metre area. The breccia is comprised of soft, buff coloured, felsic fragments, 1 to 3 centimetres in diameter, that contain up to 20 per cent disseminated pyrite. A matrix of vuggy white quartz, minor calcite and 2 per cent pyrite comprises 20 per cent of the breccia zone. Rare blebs of sphalerite and galena are also present within the matrix. The alteration features including intense bleaching and clay alteration and chalcedonic silica indicate an epithermal mineralization style.

Twenty-two chip samples, taken in succession over a 44 metre length in an adit, assayed from 0.41 to less than 0.069 gram per tonne gold, but a sample of mill tailings assayed 10.6 grams per tonne gold (Assessment Report 9326, page 4).

The main trench, in the southwest corner of the Mayflower claim, is about 100 metres long. The trench was excavated along a contact between ultramafic rocks and limestone. Trace sulphides were noted but sampling in 1990 failed to yield anomalous results.

Two trenches were excavated over anomalous zones discovered in 1988, along the south-central claim boundary of the Dandy Gold claim in 1989. Trace galena was observed in Trench 1. The trench was 30 metres long exposing a sequence of thinly bedded siltstones and interbedded calcareous beds striking 275 to 300 degrees and dipping 36 to 49 degrees to the north. Three samples (1079 to 1081) were taken perpendicular to bedding but yielded negligible results. Trench 2 was excavated 6 metres stratigraphically above Trench 1 over 45 metres. A faulted contact between ultramafic and underlying quartzites was exposed. Four samples were taken at 10 metre intervals. Sample 1075, across 1.1 metres, yielded 0.35 per cent lead, 0.30 per cent zinc, 1.71 grams per tonne silver and 0.14 gram per tonne gold (Assessment Report 20104).

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 21
REPORT: RGEN0100

BIBLIOGRAPHY

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GNE011**

NATIONAL MINERAL INVENTORY: 092G10 Mo1

NAME(S): **BOISE CREEK**, MARGARET, DD,
PITT

STATUS: Showing Open Pit

MINING DIVISION: New Westminster

REGIONS: British Columbia

NTS MAP: 092G10E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 36 26 N

LONGITUDE: 122 44 14 W

ELEVATION: 579 Metres

NORTHING: 5494995

EASTING: 518985

LOCATION ACCURACY: Within 500M

COMMENTS: Drill hole #1 (Assessment Report 12569, Figure 3).

COMMODITIES: Copper

Molybdenum

MINERALS

SIGNIFICANT: Pyrite Molybdenite Pyrrhotite Chalcopyrite

ASSOCIATED: Quartz

ALTERATION: Quartz

ALTERATION TYPE: Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated Vein
CLASSIFICATION: Porphyry Hydrothermal Epigenetic

TYPE: L08 Porphyry Mo (Climax-type)

SHAPE: Irregular

MODIFIER: Fractured

DIMENSION: 1500 x 0600 x 0400 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Area of mineralization.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Middle Jurassic	Undefined Group	Harrison Lake	
Lower Jurassic			Coast Plutonic Complex

ISOTOPIC AGE: 150 Ma
DATING METHOD: Uranium/Lead

LITHOLOGY: Meta Andesite
Migmatite
Quartz Diorite

HOSTROCK COMMENTS: Isotopic age date from GSC Paper 90-1F, p. 99, Fig. 2. The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE:

COMMENTS: Roof pendants within the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Copper

0.1000

Per cent

Molybdenum

0.0140

Per cent

COMMENTS: Molybdenum grade given for molybdenite.

REFERENCE: Assessment Report 12569, page 11.

CAPSULE GEOLOGY

Molybdenum-copper mineralization occurs over a 1500 by 600 metre area on either side of Boise Creek (Canon Creek), 12 kilometres northwest of the north end of Pitt Lake.

The showing is underlain by several elongate inclusions of meta-andesite and associated migmatite of the Middle Jurassic Harrison Lake Formation. The inclusions occur in Late Jurassic quartz diorite of the Tertiary to Jurassic Coast Plutonic Complex. The inclusions trend north-northeast and are up to 800 metres long.

Mineralization consists of pyrite, molybdenite, pyrrhotite and chalcopyrite. Mineralization occurs in silicified and crushed zones, up to 0.9 metres wide, and in a network of quartz veins which are

CAPSULE GEOLOGY

0.13 to 30 centimetres wide. One vein assayed 2.52 per cent molybdenite over 30 centimetres (Bulletin 9, p. 60). The mineralization is best developed in the andesitic inclusions where fracturing and veining are more intense. Molybdenite is confined largely to the quartz veining and chalcopyrite is disseminated throughout the host rocks. Diamond drilling indicates that the mineralization continues to depths of at least 400 metres. A 1000 metre by 500 metre zone is reported to average 0.10 per cent copper and 0.014 per cent molybdenite (Assessment Report 12569, p. 11).

In 1967 Carribean Exploration Corporation carried out geological and geophysical surveys and 2265 metres of diamond drilling. The mineralization was bulk sampled by American Canadian Mining Company (A. Hewitt and Associates) in 1917.

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DATE REVISED: 1990/05/24

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE012**

NATIONAL MINERAL INVENTORY:

NAME(S): **KF**, GRAINGER PEAK

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 36 N
LONGITUDE: 122 05 04 W
ELEVATION: 1591 Metres

NORTHING: 5491967
EASTING: 566189

LOCATION ACCURACY: Within 500M

COMMENTS: Center of KF 1-4 claim group (Claim Map 92G/09E - 1976).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Bornite Chalcopyrite Molybdenite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Discordant Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
COMMENTS: Series of parallel fracture zones.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 110 Ma
DATING METHOD: Uranium/Lead

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: Isotopic age from GSC Paper 90-1F, page 99. The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
COMMENTS: Located at the southeastern margin of the Coast Plutonic Complex.

CAPSULE GEOLOGY

The KF showing is located 1 kilometre southwest of Grainger Peak and 19 kilometres northeast of the north end of Stave Lake. A series of parallel fracture zones occur in Early Cretaceous granodiorite of the Tertiary to Jurassic Coast Plutonic Complex. The zones are mineralized with bornite, chalcopyrite and molybdenite. Canex Aerial Exploration Ltd. conducted trenching and 1113 metres of drilling in 1970.

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CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE013**

NATIONAL MINERAL INVENTORY:

NAME(S): **MONTE CRISTO**, P.M.L. 811

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 57 51 N
LONGITUDE: 122 25 56 W
ELEVATION: 143 Metres

NORTHING: 5534801
EASTING: 540721

LOCATION ACCURACY: Within 500M

COMMENTS: Center of Placer Mining Lease 811 (Property File - Kirwan, G.L. (1970) Location Map).

COMMODITIES: Gold Platinum

MINERALS

SIGNIFICANT: Gold Platinum

COMMENTS: In submicron sized particles.

MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Placer

TYPE: C01 Surficial placers

DIMENSION: 0800 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Sands cover and area 400 to 800 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Recent

Glacial/Fluvial Gravels

LITHOLOGY: Fluvial Sand
Unconsolidated Sand

HOSTROCK COMMENTS: Post-Pleistocene alluvial sands.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Precious metal bearing alluvial sands underlie a 400 to 800 metre wide section of the Lillooet River valley, 31 kilometres northwest of the north end of Harrison Lake.

These post Pleistocene sands contain gold and platinum in submicron sized particles. A sample of the material assayed 11.56 dollars per tonne in combined gold and platinum (at 1970 prices) (Property File - Kirwan, G.L. (1970) p. 6). The sands are estimated to contain inferred reserves of 22.7 million tonnes down to a depth of 30 metres (Property File - Kirwan, G.L. (1970) pp. 3,4).

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GSC MAP 1069A; 1151A; 1386A
GSC MEM 335
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195, 197-204; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/16

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE014**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAX, BOR, COX, ULTIMATE**

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G10E
 BC MAP:

MINING DIVISION: New Westminster

LATITUDE: 49 40 21 N
 LONGITUDE: 122 37 37 W
 ELEVATION: 738 Metres

UTM ZONE: 10 (NAD 83)
 NORTHING: 5502286
 EASTING: 526917

LOCATION ACCURACY: Within 500M
 COMMENTS: Trench on Max 8 claim (Assessment Report 782, Map 2).

COMMODITIES: Copper Gold Silver Molybdenum

MINERALS

SIGNIFICANT:	Pyrite	Bornite	Molybdenite	Chalcopyrite	
ASSOCIATED:	Quartz				
ALTERATION:	Sericite	Kaolinite	Silica	Pyrite	
ALTERATION TYPE:	Sericitic		Argillic	Silicific'n	Pyrite
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER:	Stockwork	Vein	Disseminated	
CLASSIFICATION:	Porphyry	Hydrothermal	Epigenetic	
DIMENSION:	0120	Metres	STRIKE/DIP:	TREND/PLUNGE:
COMMENTS:	Mineralization is exposed over more than 120 metres.			

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Middle Jurassic	Undefined Group	Harrison Lake	
Lower Jurassic			Coast Plutonic Complex
ISOTOPIC AGE:	150 Ma		
DATING METHOD:	Uranium/Lead		

LITHOLOGY: Porphyritic Meta Andesite
 Quartz Diorite

HOSTROCK COMMENTS: Isotopic age date from GSC Paper 90-1F, p. 99, Fig. 2. The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT:	Coast Crystalline	PHYSIOGRAPHIC AREA:	Fiord Ranges (Southern)
TERRANE:	Plutonic Rocks		
METAMORPHIC TYPE:	Regional	RELATIONSHIP:	GRADE: Greenschist

INVENTORY

ORE ZONE:	VEINLETS	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1928
SAMPLE TYPE:	Chip		
COMMODITY		GRADE	
Silver		13.7000	Grams per tonne
Gold		6.6300	Grams per tonne
Molybdenum		0.1600	Per cent
COMMENTS:	Chip sample of pyritic quartz veinlets.		
REFERENCE:	Minister of Mines Annual Report 1928, page 390.		

CAPSULE GEOLOGY

Mineralization is exposed over more than 120 metres on the west side of Corbold (Canyon) Creek, 14 kilometres north of the head of Pitt Lake. The area is underlain by a roof pendant of pyritized, epidote and chlorite altered feldspar-quartz porphyritic meta-andesite of the Middle Jurassic Harrison Lake Formation. The pendant is enclosed by Late Jurassic quartz diorite of the Tertiary to Jurassic Coast Plutonic Complex. These units are occasionally cut by steeply dipping porphyritic dykes striking north to northwest. Sulphide mineralization is developed in the north end of the roof pendant and in the enclosing quartz diorite to the west. Mineralization consists of pyrite, bornite, molybdenite and chalcopyrite as massive veinlets and as disseminations in a stockwork of quartz veinlets. A chip sample of pyritic quartz veinlets assayed 6.63 grams per tonne gold, 13.7 grams per tonne silver and 0.16 per

CAPSULE GEOLOGY

cent molybdenum (Minister of Mines Annual Report 1928, p. 390). Pyrite, chalcopyrite and bornite are locally concentrated along shear zones exhibiting sericite-kaolinite alteration and silicification. A sample, across a 0.3 metre wide shear, contained 0.69 grams per tonne gold, 50.7 grams per tonne silver and 1.95 per cent copper (Assessment Report 4513, p. 7).

The showing has been explored periodically since its discovery in 1928.

BIBLIOGRAPHY

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EMPR ASS RPT 782, 1569, 3906, *4513, 12793
EMPR FIELDWORK 1980, pp. 165-184
EMPR GEM 1972-274; 1973-238
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335, p. 191
GSC P 86-1B, pp. 699-706, 715-720; 89-1E, pp. 177-187; 90-1E, pp. 183-90-1F, pp. 95-107
Arthur, A. (1987): Mesozoic Stratigraphy and Paleontology of the West Side Of Harrison Lake, Southwestern British Columbia, unpublished M.Sc. thesis, University of British Columbia
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/23

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE015**

NATIONAL MINERAL INVENTORY:

NAME(S): **RWS**, FORESTRY CREEK

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 31 36 N
LONGITUDE: 122 54 46 W
ELEVATION: 183 Metres

NORTHING: 5486009
EASTING: 506312

LOCATION ACCURACY: Within 500M

COMMENTS: Grab sample site (Assessment Report 11142, Geophysical Map).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Sulphide
COMMENTS: Sulphides not identified.
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0006 Metres STRIKE/DIP: 360/30W TREND/PLUNGE:
COMMENTS: The vein is exposed over 6 metres and is 0.20 to 0.30 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1982
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Silver		26.7000	Grams per tonne
Copper		1.7400	Per cent
COMMENTS:	Selected sample.		
REFERENCE:	Assessment Report 11142, page 9.		

CAPSULE GEOLOGY

The RWS showing is located on the north side of Forestry Creek, 900 metres west-northwest of the confluence with the Indian River. A mineralized quartz vein is exposed over a length of 6 metres and is hosted Early to Middle Cretaceous quartz diorite of the Tertiary to Jurassic Coast Plutonic Complex. The vein, 0.20 to 0.30 metres wide, strikes north and dips 30 degrees west. A selected grab sample assayed 1.74 per cent copper and 26.7 grams per tonne silver (Assessment Report 11142, p. 9).

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GSC MAP 1069A; 1151A; 1386A
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Armstrong J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/05/28
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE016**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRIENDSHIP**, CUMO, MO

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09E
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 30 21 N
LONGITUDE: 122 10 24 W
ELEVATION: 823 Metres

NORTHING: 5484018
EASTING: 559849

LOCATION ACCURACY: Within 500M

COMMENTS: Center of Cumo 2 claim (Assessment Report 5529, Map 5).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic			Coast Plutonic Complex

LITHOLOGY: Granodiorite
Granite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
COMMENTS: Located at the southeastern margin of the Coast Plutonic Complex.

CAPSULE GEOLOGY

Mineralization occurs on the south side of Penstock Creek, 1.5 kilometres east-southeast of the confluence with Winslow Creek. Molybdenite and chalcopyrite with minor pyrite occur as scattered blebs, 0.25 to 2.5 centimetres in diameter. The mineralization is hosted in Middle to Late Jurassic granodiorite and leucogranite of the Jurassic to Tertiary Coast Plutonic Complex. In 1966, New Jersey Zinc Exploration Company (Canada) Ltd., carried out 709 metres of diamond drilling in 5 holes.

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GSC MEM 335
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195;
90-1F, pp. 95-107
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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/22

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE017**

NATIONAL MINERAL INVENTORY:

NAME(S): **LONDON**, LONDON NO. 3 (L.3392), LONDON NO. 1 (L.3398),
LONDON NO. 2 (L.3399), LONDON NO. 5 (L.4881), NABOB (L.4881),
INDIAN RIVER

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:
LATITUDE: 49 36 45 N
LONGITUDE: 122 58 56 W
ELEVATION: 518 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Adit on London 2 claim (Lot 3399) (Property File - Claim Map).

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

NORTHING: 5495548
EASTING: 501284

COMMODITIES: Molybdenum Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Molybdenite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Porphyry Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 0900 x 0400 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Elongate mineralized stock, exposed over a 900 by 400 metre area,
trends northeast.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Rhyolite
Dacitic Pyroclastic
Andesitic Pyroclastic

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
COMMENTS: Roof pendant in the southern Coast Plutonic Complex.

CAPSULE GEOLOGY

Low grade polymetallic mineralization occurs on the northeast side of the Indian River (Roy Creek), 16 kilometres southeast of Squamish. The Roy showing (092GNE001) lies 500 metres to the south-east.

The Indian River bisects an elongate, northeast trending, stock of quartz diorite which intrudes a sequence of rhyolite and dacitic to andesitic pyroclastics. The volcanic rocks are part of the Lower Cretaceous Gambier Group and occur at the south end of a roof pendant. The pendant is enclosed in Late Jurassic diorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. The stock is exposed over a 900 by 400 metre area.

The northeast end of the stock is cut by numerous veinlets and lenses of quartz, up to 8 centimetres wide. These contain pyrite, chalcopyrite, sphalerite and molybdenite. Pyrite, and to a lesser extent, sphalerite and chalcopyrite, is also disseminated throughout this portion of the stock.

The stock was drilled by Anaconda American Brass and Corporation Falconbridge Copper in 1965 and 1980, respectively.

BIBLIOGRAPHY

EMPR AR 1914-389, 1917-278, 1920-352, 1965-221
EMPR ASS RPT 14838
EMPR FIELDWORK 1980, pp. 165-184
EMPR PF (*Claim sheet map - Indian River Area)
GSC MAP 199A; 1069A; 1151A; 1386A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

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REPORT: RGEN0100

BIBLIOGRAPHY

GSC MEM *158, p. 117; 335, pp. 47-54, 58, 61, 62
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195, 90-1F, pp. 95-107
GCS SUM RPT *1917, Part B, pp. 24
Armstrong J.E. (1990): Vancouver Geology, Geological Association of
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Falconbridge File

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/25

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE018**

NATIONAL MINERAL INVENTORY:

NAME(S): **CALEDONIA**, GOLDEN ZONE

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 35 26 N
LONGITUDE: 122 57 02 W
ELEVATION: 329 Metres

NORTHING: 5493110
EASTING: 503574

LOCATION ACCURACY: Within 500M

COMMENTS: Trench on Caledonian 2 claim (Lot 2787) (Property File - Claim Map).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic-Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Volcanic
Sediment/Sedimentary

HOSTROCK COMMENTS: Gambier Group ranges from Upper Jurassic to Lower Cretaceous in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Pacific Ranges	
TERRANE: Gambier	Plutonic Rocks	
METAMORPHIC TYPE: Regional	RELATIONSHIP:	GRADE: Greenschist
COMMENTS: Roof pendant within the southern Coast Plutonic Complex.		

CAPSULE GEOLOGY

Copper mineralization is exposed on Caledonian Creek, 650 metres north of the confluence with the Indian River, 19 kilometres southeast of Squamish.

A trench, on the east bank of Caledonian Creek, exposes pyrite and chalcopyrite(?). The mineralization is hosted in volcanics and sediments of the Upper Jurassic to Lower Cretaceous Gambier Group, near the south end of the Indian River roof pendant.

BIBLIOGRAPHY

EMPR AR 1917-278
EMPR PF (Claim Sheet Map - Indian River Area)
GSC MAP 199A; 1069A: 1151A; 1386A
GSC MEM 335, pp. 47-54,58,61,62
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-101
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/28

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE019**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHILCO**, P.M.L. 813

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 58 20 N
LONGITUDE: 122 26 42 W
ELEVATION: 475 Metres

NORTHING: 5535690
EASTING: 539798

LOCATION ACCURACY: Within 500M

COMMENTS: Sample H-59 (Assessment Report 2589, location map).

COMMODITIES: Gold Platinum Palladium Silver

MINERALS

SIGNIFICANT: Gold Platinum Palladium Silver
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Placer
TYPE: C01 Surficial placers
DIMENSION: 0800 x 0040 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Sands, more than 40 metres deep, cover a 400 to 800 metre wide section.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Recent Undefined Group Undefined Formation

LITHOLOGY: Fluvial Sand

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1969
SAMPLE TYPE: Bulk Sample
COMMODITY GRADE
Silver 4.8000 Grams per tonne
Gold 2.4700 Grams per tonne
Palladium 2.7100 Grams per tonne
Platinum 2.7700 Grams per tonne

COMMENTS: 1.4 kilogram sample.
REFERENCE: Assessment Report 2589.

CAPSULE GEOLOGY

The Chilco showing is located 32.5 kilometres northwest of the north end of Harrison Lake. Precious metal bearing sands cover a 400 to 800 metre wide section of the Lillooet River valley, to depths in excess of 40 metres.

The post-Pleistocene alluvial sands contain gold, silver, platinum and palladium in submicron sized particles. A 1.4 kilogram sample of sand, taken at least a metre below surface, assayed 2.47 grams per tonne gold, 4.80 grams per tonne silver, 2.77 grams per tonne platinum and 2.71 grams per tonne palladium (Assessment Report 2589, p. A2, Sample H-59).

BIBLIOGRAPHY

EM FIELDWORK 2001, pp. 303-312
EM GEOFILE 2000-2, 2000-5
EMPR ASS RPT *2589
EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195, 197-204; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 34
REPORT: RGEN0100

BIBLIOGRAPHY

British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/16

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE020**

NATIONAL MINERAL INVENTORY:

NAME(S): **LORI**, MAMQUAM RIVER, ALCO

MINING DIVISION: New Westminster

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092G10W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 42 34 N
 LONGITUDE: 122 55 25 W
 ELEVATION: 808 Metres

NORTHING: 5506329
 EASTING: 505507

LOCATION ACCURACY: Within 500M

COMMENTS: Largest mineralized zone (Assessment Report 4916, Map 1).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT:	Pyrite	Chalcopyrite	Molybdenite	Chalcocite	Bornite
ASSOCIATED:	Quartz	Orthoclase			
ALTERATION:	Quartz	Orthoclase	Chlorite	Epidote	Pyrite
ALTERATION TYPE:	Silicific'n	Potassic		Propylitic	Pyrite
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER:	Stockwork	Vein	Disseminated
CLASSIFICATION:	Porphyry	Hydrothermal	Epigenetic
TYPE:	L04 Porphyry Cu ± Mo ± Au		
DIMENSION:	1070 x 0300	Metres	STRIKE/DIP: 070/
COMMENTS:	Zone trends west-northwest. Mineralized fractures strike 050 to 090 degrees and dip moderately south.		

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Diorite
 Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT:	Coast Crystalline	PHYSIOGRAPHIC AREA:	Pacific Ranges
TERRANE:	Plutonic Rocks		
COMMENTS:	Hosted in the southern Coast Plutonic Complex.		

INVENTORY

ORE ZONE:	DRILLHOLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1973
SAMPLE TYPE:	Drill Core		
COMMODITY		GRADE	
Copper		0.2200	Per cent
Molybdenum		0.0080	Per cent
COMMENTS:	A 3.1 metre intersection.		
REFERENCE:	Assessment Report 4917 (Hole NM1).		

CAPSULE GEOLOGY

Copper-molybdenum mineralization is exposed in road cuts along the northeast side of the Mamquam River, 16 kilometres east of Squamish.

The showing is hosted in Late Jurassic diorite and quartz diorite, of the Tertiary to Jurassic Coast Plutonic Complex, which are cut by a swarm of andesitic dykes.

Mineralization consists of pyrite, chalcopyrite, molybdenite, chalcocite and bornite. The mineralization occurs in fractures, disseminated in host rocks, and in quartz veins associated with quartz-orthoclase alteration. The zone, 1070 by 300 metres in area, is hosted in diorite and quartz diorite. mineralized fractures generally strike 050 to 090 degrees and dip moderately south. The mineralization is haloed by an extensive zone of pyritic and propylitic alteration. A sample of drill core, drill hole NM1, assayed 0.22 per cent copper and 0.008 per cent molybdenum between 45.7 metres and 48.8 metres (Assessment Report 4917).

The showing has been explored periodically, between 1970 and 1980, by various operators.

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RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

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REPORT: RGEN0100

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GSC MAP 1069A; 1151A; 1386A
GSC MEM 335
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/24

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE021**

NATIONAL MINERAL INVENTORY:

NAME(S): **SHREW, EAGLE, HI,
SNOW CHUTE**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 32 17 N
LONGITUDE: 122 01 34 W
ELEVATION: 823 Metres

NORTHING: 5487727
EASTING: 570462

LOCATION ACCURACY: Within 500M
COMMENTS: Sample site 1056 (Assessment Report 6159, Map 1).

COMMODITIES: Copper Zinc Lead Silver Gold

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Arsenopyrite Chalcopyrite Sphalerite
ASSOCIATED: Magnetite
ALTERATION: Chlorite Epidote
ALTERATION TYPE: Chloritic Epidote Oxidation Leaching
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Breccia Stratabound Massive
CLASSIFICATION: Hydrothermal Epigenetic Skarn
TYPE: I01 Au-quartz veins K04 Au skarn
DIMENSION: 540 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralization occurs discontinuously over 540 metres length.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Middle Jurassic	Undefined Group	Harrison Lake	
Middle Jurassic	Undefined Group	Mysterious Creek	

LITHOLOGY: Banded Tuff
Felsic Volcanic
Intermediate Volcanic
Shale
Argillite

HOSTROCK COMMENTS: Shale and argillite of the Echo Island Member of the Harrison Lake Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional Contact RELATIONSHIP: Syn-mineralization GRADE: Greenschist
Hornfels

COMMENTS: Roof pendant of island arc volcanics and sediments.

CAPSULE GEOLOGY

The Shrew showing is located 3.7 kilometres north of the Eagle Creek/Chehalis River confluence. Property exploration on the Shrew showing began in 1976 and 1977 when Chevron focused on the potential for copper-lead-zinc volcanogenic mineralization in the area. The property was restaked in 1989 by J. Cuttle, who carried out prospecting and soil, silt and rock geochemical sampling in 1991 and 1992. On a regional scale, the volcano-sedimentary strata found between Harrison Lake and Chehalis Lake area contains two distinct episodes; Middle Jurassic Harrison Lake Group in the south and Lower Cretaceous Fire Lake Group in the north. The Brokenback Hill Formation represents a relatively complete section of bimodal island arc volcanics and associated clastic sediments. These two lithological packages are separated by shales and volcanoclastic sediments of the Middle Jurassic Mysterious Formation and Upper Jurassic Billhook Formation. The Harrison Lake fault and Fire Creek thrust form major northwest trending fault structures to the northeast of the Shrew showing. Much of the showing is underlain by a sequence of highly faulted felsic to intermediate volcanics and associated agglomerates, tuffs, shales and sandstones of the Harrison Lake Formation. These are overlain by finely banded tuff and argillite of the Echo Island Member and grey to black shale and argillite of the Mysterious Creek Formation. A fault bound sliver of dacitic to rhyolitic tuff and

CAPSULE GEOLOGY

andesitic flows of the Lower Cretaceous Brokenback Hill Formation occurs along the northern edge of the Eagle 1 claim. Bedding of the units is generally very flat with dips to the west and southwest of approximately 20 to 45 degrees. These units have been intruded by feldspar porphyry and quartz diorite plugs.

Two types of mineralization occur at the Shrew showing. Extensive skarn mineralization and hornfels occurs along the northwest trending contact between the Harrison Lake Group and Echo Island Member. The skarn and hornfels are mineralized with massive coarse pyrite, pyrrhotite and minor arsenopyrite. Other float and limited outcrop samples indicate polymetallic mineralization occurs discontinuously, over a 540 metre length, in a snow chute on the west side of Eagle Creek. Float boulders contain massive and banded pyrite, pyrrhotite, sphalerite with minor chalcopyrite and arsenopyrite. This mineralization is confined to at least three northeast trending faults of limited extent and gossanous zones.

Samples (mostly float) from the central gossanous zone in a creek gully on the Eagle 1 claim have yielded up to 13.7 per cent zinc, 8.9 per cent arsenic, 25.71 grams per tonne silver, 0.3 per cent lead, 0.2 per cent copper and 0.90 gram per tonne gold (Assessment Report 21083). The samples were highly epidote altered mafic and lesser rhyolitic volcanics.

In 1990, a total of 23 rock float samples and 1 rock outcrop sample were taken. Sample Eag-JC-28 from outcrop, yielded 1.5 grams per tonne silver, 0.01 per cent zinc and 0.01 gram per tonne gold (Assessment Report 21083). Float samples yielded up to 26.0 grams per tonne silver, 12.1 per cent arsenic, 0.20 per cent lead, 13.7 per cent zinc and 0.9 gram per tonne gold (Assessment Report 21083). Additional rock float samples taken in 1991 yielded similar values. A second creek was prospected in 1991, which yielded anomalous values from 4 rock float samples. Sample 32012 yielded 0.04 per cent copper, 0.84 per cent zinc, 0.01 per cent lead, 0.05 gram per tonne gold and 2.5 grams per tonne silver (Assessment Report 22533). A copper (plus/minus gold and barium) and a arsenic soil anomaly were determined in the area in 1991.

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EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335, pp. 42-44
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195,
197-204; 90-1F, pp. 95-107
Arthur, A. (1987): Mesozoic Stratigraphy and Paleontology of the West
Side Of Harrison Lake, Southwestern British Columbia, unpublished
M.Sc. thesis, University of British Columbia
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, unpublished M.Sc. Thesis, University of British
Columbia
Chevron File

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KFM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE022**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAMQUAM RIVER**, LORI

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 33 N
LONGITUDE: 122 55 11 W
ELEVATION: 625 Metres

NORTHING: 5504445
EASTING: 505790

LOCATION ACCURACY: Within 500M

COMMENTS: Center of area of mineralization between Mamquam River and Crawford Creek (Assessment Report 4916, Map 1).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite
ASSOCIATED: Quartz Orthoclase
ALTERATION: Quartz Orthoclase Chlorite Epidote Pyrite
ALTERATION TYPE: Silicific'n Potassic Propylitic Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein Disseminated
CLASSIFICATION: Porphyry Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 0150 x 0150 Metres STRIKE/DIP:
COMMENTS: Mineralization occurs in veins and fractures in a 150 by 150 metre area. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic Coast Plutonic Complex

LITHOLOGY: Diorite
Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Plutonic Rocks
COMMENTS: Located at the south end of the Coast Plutonic Complex.

CAPSULE GEOLOGY

Copper-molybdenum mineralization is exposed along a road cut, on the east side of the Mamquam River, 500 metres north of the confluence with Crawford Creek. The Lori showing (092GNE020) is 2 kilometres to the north.

Pyrite, chalcopyrite and molybdenite occur in fractures and quartz veins, over a 150 by 150 metre area. Mineralization is hosted in quartz-orthoclase altered quartz diorite and diorite of the Jurassic to Tertiary Coast Plutonic Complex. The mineralized zone lies at the west end, of a 1200 metre long zone of pyritic and propylitic alteration.

The area of the showing was mapped by Noranda Exploration Company in 1973.

BIBLIOGRAPHY

EMPR ASS RPT *4916
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EMPR GEM 1973-238,239
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/24

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE023**

NATIONAL MINERAL INVENTORY:

NAME(S): **PRINCESS**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 35 54 N
LONGITUDE: 122 58 10 W
ELEVATION: 332 Metres

NORTHING: 5493974
EASTING: 502208

LOCATION ACCURACY: Within 500M

COMMENTS: Adit (Assessment Report 6966, Figure 2).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Discordant
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0001 Metres
COMMENTS: Silicified zone is up to one metre wide.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

Sustut

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Rhyodacite Tuff
Rhyolite Tuff
Rhyolite Flow
Andesitic Tuff
Andesitic Flow
Andesitic Agglomerate

HOSTROCK COMMENTS: Gambier Group ranges from Upper Jurassic to Lower Cretaceous in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Hosted in a roof pendant within the southern Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Greenschist

CAPSULE GEOLOGY

The Princess showing outcrops on the southwest bank of the Indian River (Roy Creek), 17.5 kilometres southeast of Squamish. A narrow, silicified zone, up to 1 metre wide, is hosted in rhyodacite tuff. The tuff occurs within a northwest trending sequence of rhyolitic to andesitic flows, tuffs and agglomerates of the Upper Jurassic to Lower Cretaceous Gambier Group, near the south end of the Indian River roof pendant. Mineralization consists of granular pyrite containing erratic blebs of chalcopyrite.

BIBLIOGRAPHY

EMPR AR 1917-278
EMPR ASS RPT *6966
EMPR EXPL 1978-135
EMPR FIELDWORK 1980, pp. 165-184
EMPR PF (Claim Map Indian River Area)
GSC MAP 199A; 1069A; 1151A; 1386A
GSC MEM 335, pp. 47-54, 58, 60, 61
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195, 90-1F, pp. 95-107
Armstrong J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/28

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE024**

NATIONAL MINERAL INVENTORY:

NAME(S): **BREM**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 57 N
LONGITUDE: 122 04 03 W
ELEVATION: 61 Metres

NORTHING: 5505601
EASTING: 567245

LOCATION ACCURACY: Within 500M

COMMENTS: Sample site 11258 (Assessment Report 11358, Figure 5).

COMMODITIES: Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite Galena Arsenopyrite Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: I01 Au-quartz veins
DIMENSION: 0200 x 0070 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralization occurs discontinuously over a 70 by 200 metre area.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	
	DATING METHOD: Fossil		
	MATERIAL DATED: Various fossils		
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Rhyolitic Lapilli Tuff
Andesitic Flow
Dacitic Flow
Crystal Tuff

HOSTROCK COMMENTS: Roof pendant hosted in the Jurassic - Tertiary Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
COMMENTS: An island arc sequence within a roof pendant.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY:	Assay/analysis	YEAR:	1983
SAMPLE TYPE:	Rock		
COMMODITY	GRADE		
Silver	0.9000	Grams per tonne	
Lead	0.0393	Per cent	
Zinc	0.3435	Per cent	

COMMENTS: Sample of rhyolite lapilli tuff with sphalerite and galena.
REFERENCE: Assessment Report 11358, Appendix 5, Sample 11258.

CAPSULE GEOLOGY

Polymetallic mineralization occurs discontinuously over a 70 by 200 metre area on the west shore of Harrison Lake, 1 kilometre northwest of Five Mile Bay.

A roof pendant lies preserved along the west side of Harrison Lake at the eastern margin of the Jurassic to Tertiary Coast Plutonic Complex. The pendant comprises rhyolitic tuffs, lapilli tuffs, lahars, andesitic to dacitic flows and crystal tuffs of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group.

Mineralization consists of disseminated sphalerite and chalcopyrite with minor galena, arsenopyrite and/or pyrite in grains up to 2 centimetres in diameter. The mineralization is hosted by a rhyolitic quartz eye lapilli tuff. A sample of tuff, containing sphalerite and galena, assayed 0.9 grams per tonne silver, 0.3435 per cent zinc and 0.0393 per cent lead (Assessment Report 11358, Appendix 5, Sample 11258).

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EMPR ASS RPT *11358
EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
GSC MAP 1069A; 1151A; 1386A
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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/21

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE025**

NATIONAL MINERAL INVENTORY:

NAME(S): **ALPEN**, SHANNON, URSULA

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 39 05 N
LONGITUDE: 122 57 19 W
ELEVATION: 1440 Metres

NORTHING: 5499873
EASTING: 503228

LOCATION ACCURACY: Within 500M

COMMENTS: Sample C22B (Assessment Report 11052, Map 2).

COMMODITIES: Zinc Lead Silver Copper

MINERALS

SIGNIFICANT: Pyrite Sphalerite Chalcopyrite Galena

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 2000 x 1000 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralized roof pendant trends west-northwest for 2 kilometres, and is up to 1 kilometre wide.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Rhyolitic Tuff
Andesitic Tuff
Rhyolitic Agglomerate
Andesitic Agglomerate
Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier Plutonic Rocks
COMMENTS: Hosted in a roof pendant in the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1982
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	2.0000 Grams per tonne
Lead	1.0600 Per cent
Zinc	0.4900 Per cent

REFERENCE: Assessment Report 11052, Table 1, Sample C22B.

CAPSULE GEOLOGY

Various mineral occurrences are scattered over a northwest trending ridge, between Raffuse Creek and Mamquam River, 15 kilometres east-southeast of Squamish.

The ridge is underlain by a roof pendant of rhyolitic and andesitic tuff and agglomerate of the Lower Cretaceous Gambier Group. The volcanic rocks overlie Late Jurassic leucocratic granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The elongate, keel shaped, roof pendant trends west-northwest for 2 kilometres and is up to 1 kilometre wide.

Mineralization consists of pyrite and, locally associated, sphalerite, chalcopyrite and galena. The sulphides occur as scattered disseminations and blebs, and as narrow fracture and shear fillings with quartz in the volcanics and, to a lesser extent, in the granodiorite.

A sample containing thin quartz veinlets, with specks of galena, pyrite and minor sphalerite, assayed 0.49 per cent zinc, 1.06 per

CAPSULE GEOLOGY

cent lead and 2.0 grams per tonne silver (Assessment Report 11052, Table 1, Sample C22B).

BIBLIOGRAPHY

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EMPR FIELDWORK 1980, pp. 165-184
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335, pp. 47-54
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195, 90-1F, pp. 95-107
Armstrong J.E. (1990): Vancouver Geology, Geological Association of
Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/24

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE026**

NATIONAL MINERAL INVENTORY:

NAME(S): **EASY - JOE**

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 56 30 N
LONGITUDE: 122 25 45 W
ELEVATION: 274 Metres

NORTHING: 5532301
EASTING: 540959

LOCATION ACCURACY: Within 500M

COMMENTS: Southeastern proposed drill hole (Property File - Notice of work, Kali Venture Corp. 1989)

COMMODITIES: Gold Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Galena Sphalerite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 0200 x 0004 Metres STRIKE/DIP: 140/75E TREND/PLUNGE:
COMMENTS: Shear zone.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			

LITHOLOGY: Dacitic Tuff
Andesitic Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Contained in roof pendant of Island arc volcanics and sediments.

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1989
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Gold 3.9000 Grams per tonne
COMMENTS: Over core length of 0.91 metre.
REFERENCE: George Cross News Letter #69, 1990.

CAPSULE GEOLOGY

The Easy-Joe prospect is located 1.7 kilometres west-northwest of Skookumchuck and 29.5 kilometres northwest of the north end of Harrison Lake. The Easy Number 1 occurrence (092GNE031) lies approximately 500 metres to the southwest.

A shear zone is developed in dacitic tuff of the fourth (uppermost) member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. Andesitic tuffs contact the zone to the west. The shear zone strikes 140 degrees for at least 200 metres and dips 70 to 75 degrees east, similar to the prevailing foliation and bedding. Widths vary from 3.0 to 3.7 metres.

Mineralization consists of disseminated pyrite and pyrrhotite, and trace galena and sphalerite. A grab sample from a trench assayed 20.4 grams per tonne gold, and a drill hole (#3) cored 0.91 metre grading 3.90 grams per tonne gold between 7.3 and 8.2 metres depth (George Cross News Letter #69, 1990).

Exploration of a parallel structure, lying several hundred metres to the east, produced surface samples assaying up to 13.6 grams per tonne gold and drill hole intersections of up to 5.1 grams per tonne gold over 0.46 metres (Hole #1) (George Cross News Letter #69, 1990).

The zone was first identified during a soil geochemistry survey

CAPSULE GEOLOGY

for gold by Symes Resources Ltd. in 1988. Kali Venture Corporation carried out 405 metres of diamond drilling in 1989.

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EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
EMPR INF CIRC 1990-1, p. 40
EMPR PF (*Notice of work, Kali Venture Corp., Mar. 31, 1989)
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335, pp. 42-44
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195,
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GCNL *#69, 1990
Arthur, A. (1987): Mesozoic Stratigraphy and Paleontology of the West
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, unpublished M.Sc. Thesis, University of British
Columbia

DATE CODED: 1989/11/22
DATE REVISED: 1997/06/30

CODED BY: SNP
REVISED BY: KJM

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092GNE027**

NATIONAL MINERAL INVENTORY:

NAME(S): **SLO, QUET**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 45 31 N
LONGITUDE: 122 21 39 W
ELEVATION: 1113 Metres

NORTHING: 5511989
EASTING: 546036

LOCATION ACCURACY: Within 500M

COMMENTS: Sample site QKO-57 (Assessment Report 17373, Figure 11).

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Galena Chalcopyrite Sphalerite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive
CLASSIFICATION: Volcanogenic Hydrothermal
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 1300 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Area of gossans outcrop in a nearly flat lying sequence.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	

DATING METHOD: Fossil
MATERIAL DATED: Various fossils

LITHOLOGY: Felsic Ash Tuff
Felsic Lapilli Tuff
Feldspar Porphyritic Andesitic Flow
Rhyolite Cherty Tuffite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Roof pendant consisting of an island arc sequence.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 31.2000 Grams per tonne
Gold 2.6500 Grams per tonne
Lead 0.3850 Per cent
Zinc 0.1490 Per cent
COMMENTS: Sample of tuff containing 10 per cent pyrite and 0.5 per cent galena.
REFERENCE: Assessment Report 17373, page 7, Sample QKO-57.

CAPSULE GEOLOGY

Gossanous cliffs outcrop for 1300 metres along the south side of the northern tributary of North Sloquet Creek (Simpson Creek), 16 kilometres west of the north end of Harrison Lake.

The showing is hosted in a nearly flat lying sequence of felsic ash and lapilli tuffs intercalated with feldspar porphyritic andesitic flows within the Early Cretaceous Brokenback Hill Formation, Fire Lake Group. A horizon of cherty rhyolitic tuffite lies near the top of the sequence. A thrust faulted section of interbedded argillaceous siltstone and dacitic tuffs overlies this sequence.

Mineralization is confined largely to the felsic tuffs, which contain 2 to 40 per cent pyrite. The pyrite occurs as disseminations, blebs and stringers, as 1 to 3 centimetre clasts and as massive pods, up to 30 centimetres in diameter. Traces of galena, chalcopyrite and sphalerite are also evident. A grab sample of felsic lapilli tuff, containing 10 per cent pyrite and 0.5 per cent galena, assayed 2.650 grams per tonne gold, 31.2 grams per tonne

CAPSULE GEOLOGY

silver, 0.3850 per cent lead and 0.1490 per cent zinc (Assessment Report 17373, p. 7, Sample QKO-57).

The deposit was explored, between 1980 and 1987, for Kuroko-type volcanogenic massive sulphide deposits by Cominco Ltd. and Aranlee Resources Ltd.

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GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195, 197-204; 90-1F, pp. 95-107
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DATE CODED: 1986/10/27
DATE REVISED: 1990/05/21

CODED BY: AFW
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE028**

NATIONAL MINERAL INVENTORY:

NAME(S): **LILABET**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 08 N
LONGITUDE: 122 25 41 W
ELEVATION: 1500 Metres

NORTHING: 5520504
EASTING: 541129

LOCATION ACCURACY: Within 500M

COMMENTS: Sample AA-25091 (Assessment Report 11638, Figure 2).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Arsenopyrite

ASSOCIATED: Chlorite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0100 x 0025 Metres
COMMENTS: Breccia zone.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	

DATING METHOD: Fossil
MATERIAL DATED: Various fossils

LITHOLOGY: Andesitic Flow
Volcanic Breccia
Volcanic Conglomerate

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

COMMENTS: Hosted in an island arc sequence preserved in a roof pendant.

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: BRECCIA

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

38.4000

Grams per tonne

Copper

1.2919

Per cent

COMMENTS: Sample taken over 100 metre length.

REFERENCE: Assessment Report 11638, pages 4-5, Sample AA-25091.

CAPSULE GEOLOGY

The Lilabet showing is located 1.4 kilometres southwest of Fire Lake and 22.5 kilometres northwest of the north end of Harrison Lake.

The showing consists of a breccia zone hosted in the second member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The unit consists of andesitic flows, and heterolithic volcanic breccias and conglomerates, that have been metamorphosed up to greenschist facies.

The breccia is comprised of a zone of small, white, angular, fine grained, felsic fragments in a chlorite-sulphide matrix. The zone extends northwest for 100 metres and is up to 25 metres wide. The zone contains up to 10 per cent combined pyrite, chalcopyrite and arsenopyrite. Disseminated pyrite is restricted to the felsic clasts. A chip sample taken over a length of 100 metres contained 38.4 grams per tonne silver and 1.2919 per cent copper (Assessment Report 11638, pp. 4,5, Sample AA-25091).

The breccia zone was mapped and sampled by Kidd Creek Mines in 1983.

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GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195,
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Falconbridge File
Falconbridge File

DATE CODED: 1990/05/15
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE030**

NATIONAL MINERAL INVENTORY:

NAME(S): **FIRE LAKE MOLYBDENUM**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 49 45 N
LONGITUDE: 122 25 58 W
ELEVATION: 1795 Metres

NORTHING: 5519791
EASTING: 540795

LOCATION ACCURACY: Within 500M

COMMENTS: Molybdenum showing (GSC Paper 90-1E, page 200.)

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Porphyry
TYPE: L08 Porphyry Mo (Climax-type)

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Unknown			Unnamed/Unknown Informal

LITHOLOGY: Granite

HOSTROCK COMMENTS: Possibly of the Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Fire Lake Molybdenum showing occurs 2.2 kilometres southwest of Fire Lake, 22.5 kilometres northwest of the north end of Harrison Lake. The Lilabet showing (092GNE028) is 0.8 kilometres to the northwest.

Molybdenum mineralization occurs at the north end of a north trending, ellipsoidal, granitic body. The stock is 5 kilometres in length and 3 kilometres in width. The stock intrudes Lower Cretaceous volcanics and sediments of the Fire Lake Group, which are preserved in a roof pendant at the eastern margin of the Jurassic to Tertiary Coast Plutonic Complex.

Mineralization consists of molybdenite in a stockwork of veinlets hosted in garnet bearing granite.

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DATE CODED: 1990/05/16
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CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE031**

NATIONAL MINERAL INVENTORY:

NAME(S): **EASY NUMBER 1, JOE**

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 56 16 N
LONGITUDE: 122 26 01 W
ELEVATION: 433 Metres

NORTHING: 5531866
EASTING: 540644

LOCATION ACCURACY: Within 500M

COMMENTS: Largest mineralized outcrop (Assessment Report 11436, Figure 5).

COMMODITIES: Silver Zinc Lead Copper Gold

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite Galena Sphalerite

ASSOCIATED: Gold

ALTERATION: Quartz

ALTERATION: Silica Limonite

COMMENTS: Manganese oxide staining is also present.

ALTERATION TYPE: Silicific'n Oxidation Leaching

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

DIMENSION: 500 x 500 Metres

COMMENTS: Area of stockwork.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Lower Cretaceous

GROUP

Fire Lake

FORMATION

Brokenback Hill

IGNEOUS/METAMORPHIC/OTHER

DATING METHOD: Fossil

MATERIAL DATED: Various fossils

LITHOLOGY: Andesitic Lapilli Tuff
Greenstone
Argillite
Mudstone
Quartz Feldspar Porphyry
Chlorite Schist
Quartz Sericite Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

COMMENTS: Roof pendant of island arc volcanics and sediments.

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1989

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Gold 5.3900 Grams per tonne

COMMENTS: Sample 14783, a 46-centimetre sample between 18.29 and 18.75 metres depth in drillhole 89-1.

REFERENCE: Assessment Report 20305.

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1986

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver 161.0000 Grams per tonne

COMMENTS: Highest assay over 0.5 metre, from surface exposures.

REFERENCE: Assessment Report 16789, page 4.

CAPSULE GEOLOGY

The Easy Number 1 showing is situated 1.7 kilometres due west of the village of Skookumchuck and 29 kilometres northwest of the north

CAPSULE GEOLOGY

end of Harrison Lake.

Mineralization on and near the Easy Number 1 prospect have been known since about 1897 when the Mayflower claims (092GNE010) were staked. In 1982, the area surrounding the Mayflower claims were staked by Hillside Energy Corp. as the Easy #1 and #2 claims. Anomalous silver and gold were discovered. A silver anomaly near the south-central part of the Easy Number 1 was tested with 4 drillholes by Hillside Energy Corp., Lacana Mining Corp. and Symes Resources. A strong gold and base metal soil anomaly was delineated by in the southeastern part of the Easy Number 1 claim. Symes Resources transferred its option to Kali Venture Corp. in 1989. Hillside Energy Corp. was also consolidated into Charter Minerals Inc. Lacana later amalgamated to form Corona Corp. In 1989, 5 drillholes, totalling 405.4 metres, were drilled on the Easy Number 1 claim by Kali Venture Corp. for owners Charter Minerals Inc. and Corona Corp.

Regionally, the prospect lies within a Mesozoic volcano-sedimentary sequence along the southeast flank of the Jurassic to Cretaceous Coast Plutonic Complex. The predominant lithological unit surrounding the Easy Number 1 prospect is the Lower Cretaceous Fire Lake Group. These rocks form a roof pendant northwest of Harrison Lake composed of three distinct stratigraphic units. The basal section consists of granulite, andesite, conglomerate, limestone and quartzite. The central unit consists of dark slates, shales, argillite and greywacke. The upper unit consists of clastic feldspathic greenstone, chlorite schist and minor conglomerate. The major structural features in the vicinity are the Harrison Lake shear zone and a set of younger northeast trending brittle faults.

A quartz vein stockwork is developed over a 500 by 500 metre area within the fourth (uppermost) member of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The stockwork is hosted in andesitic lapilli tuff (greenstone), argillite (mudstone), quartz feldspar porphyry and interbedded chlorite schist and quartz sericite schist. The quartz feldspar porphyry occurs as several small, elliptical bodies, up to 300 metres in length, intruding all other lithologies.

Mineralization consists of stringers and disseminations of pyrite with minor pyrrhotite, chalcopyrite and galena and traces of sphalerite associated with the quartz vein stockwork.

Silver values of up to 161 grams per tonne over widths of up to 0.5 metre are reported from surface exposures (Assessment Report 16789, page 4). A drillhole (Hole 84-2) intersected a 8.23-metre section grading 23.3 grams per tonne silver, 0.4 per cent lead and zinc values up to 2.5 per cent over 1.2 metres (Property File - Jenkins, D.M. (1987)).

In 1989, diamond drilling which tested a gold and base metal anomaly, yielded a significant intersection. The anomaly, discovered in 1988, trends northwest approximately along a contact between recessive dacite and/or dacitic lapilli tuff and latite/andesite tuff. Drillhole 89-1 yielded a maximum of 4.23 grams per tonne gold (sample 30950) over 46 centimetres between 4.42 and 4.88 metres depth and 5.39 grams per tonne gold (sample 14783) over 46 centimetres between 18.29 and 18.75 metres depth (Assessment Report 20305). Drillhole 89-3 yielded a maximum of 3.90 grams per tonne gold (sample 14825) over 91 centimetres between 7.31 and 8.22 metres (Assessment Report 20305).

Near the site of this anomaly, bulldozer trenching has exposed a 3-metre wide zone of intense shearing and limonitic alteration over a width of 3 metres. The zone strikes about 320 degrees and dips 70 to 75 degrees to the east, approximately parallel to the regional foliation. The zone is also weakly silicified and contains manganese oxide staining. Pyrite, galena, sphalerite and native gold have been identified. A grab sample from this zone yielded 13.61 grams per tonne gold (Assessment Report 20305). The gold appears to be related to a late stage, fault controlled mineralizing event.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 55
REPORT: RGEN0100

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Columbia

DATE CODED: 1990/05/16
DATE REVISED: 1997/07/30

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE032**

NATIONAL MINERAL INVENTORY:

NAME(S): **FIRE CREEK**, HADES BRIMESTONE

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 47 13 N
LONGITUDE: 122 14 47 W
ELEVATION: 213 Metres

NORTHING: 5515215
EASTING: 554247

LOCATION ACCURACY: Within 500M
COMMENTS: Drill hole DH-1 (Assessment Report 17508).

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT:	Pyrite	Pyrrhotite	Chalcopyrite	Sphalerite	Arsenopyrite		
	Bornite	Acanthite	Pyrrargyrite	Copper			
ASSOCIATED:	Sericite	Chalcedony	Quartz				
ALTERATION:	Sericite	Chalcedony	Quartz	Clay	Pyrite		
ALTERATION TYPE:	Sericitic		Silicific'n	Argillic		Potassic	Pyrite
MINERALIZATION AGE:	Unknown						

DEPOSIT

CHARACTER: Disseminated Breccia
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Bladed
DIMENSION: 0200 x 0120 x 0040 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralized alteration zone strikes northwest, dips steeply northeast.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD:	Fossil		
MATERIAL DATED:	Various fossils		

LITHOLOGY: Andesitic Tuff
Feldspar Crystal Tuff
Sericite Chlorite Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Island arc sequence preserved in a roof pendant.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Chip
COMMODITY: Gold GRADE: 10.0000 Grams per tonne
COMMENTS: Sample taken across 2.0 metres.
REFERENCE: George Cross News Letter #26, 1988.

CAPSULE GEOLOGY

The Fire Creek prospect occurs along the northeast side of Fire Creek, 1.5 kilometres west-northwest of the confluence with the Lillooet River.

A zone of strong sericitic alteration, chalcedonic silicification and heavy pyritization is developed in interbedded andesitic tuff, feldspar crystal tuff and sericite-chlorite schist. The sequence is part of the lower member of the Early Cretaceous Brokenback Hill Formation, Fire Lake Group. Information, based on drilling, indicates that the alteration zone strikes northwest for 200 metres and dips steeply northeast to depths of greater than 120 metres. True thicknesses vary from 20 to 40 metres.

Mineralization consists of 20 to 40 per cent disseminated and stringer sulphides, with veins up to 20 centimetres in width. Sulphides consist mainly of pyrite and pyrrhotite, minor chalcopyrite, sphalerite and arsenopyrite, and trace bornite, acanthite, pyrrargyrite and native copper. Less altered lithologies, around the periphery of the zone, contain up to 15 per cent in

CAPSULE GEOLOGY

disseminated and bedded sulphides which mainly comprise pyrite, pyrrhotite and minor chalcopyrite. The alteration zone is cored by a hydrothermal breccia, exhibiting intense argillic-potassic clay alteration, containing with 20 to 40 per cent disseminated and stringer pyrite. Quartz veins, up to 50 centimetres in width and containing less than 5 per cent sulphides, are found throughout the alteration zone.

A chip sample taken across 2.0 metres contained 10.0 grams per tonne gold (George Cross News Letter #26, 1988). Drill core samples assayed up to 5.93 grams per tonne gold and 9.4 grams per tonne silver over a 1.5 metre core length (Assessment Report 17508, p. 18).

The deposit has been extensively explored since its discovery in 1980. Englefield Resources Ltd. carried out 850 metres of diamond drilling in 9 holes, in 1987.

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Columbia

DATE CODED: 1990/05/17
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REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE033**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOT SPRINGS**, FRONTIER - GEM

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 44 10 N
LONGITUDE: 122 20 12 W
ELEVATION: 625 Metres

NORTHING: 5509502
EASTING: 547799

LOCATION ACCURACY: Within 500M

COMMENTS: Sample site 37691 (Property File - Carpenter, 1986, Figure 4A).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz Sericite Chlorite
ALTERATION: Quartz Sericite
ALTERATION TYPE: Silicific'n Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0500 x 0200 Metres STRIKE/DIP:
COMMENTS: Gossanous volcanics outcrop over a 200 by 500 metre area.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Peninsula	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			

LITHOLOGY: Dacitic Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier Plutonic Rocks
COMMENTS: Island arc sequence, preserved in a roof pendant.

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 13.5000 Grams per tonne
Gold 0.5400 Grams per tonne
COMMENTS: Sample of pyritic dacitic tuff.
REFERENCE: Property File - Carpenter, 1986, page 12, Sample 37691.

CAPSULE GEOLOGY

Gossanous volcanics outcrop over a 200 by 500 metre area 1 kilometre northwest of Sloquet Creek and 14 kilometres west-southwest of the north end of Harrison Lake.

The showing is underlain by silicified and sericitized dacitic tuff of the Lower Cretaceous Peninsula Formation, Fire Lake Group. These are intruded, from the west, by quartz diorite of the Upper Jurassic to Lower Cretaceous Pemberton Diorite Complex.

The tuff hosts veins and fine disseminations of pyrite, comprising up to 20 per cent of the rock. Fine disseminated chalcopyrite and pyrrhotite are also present in minor amounts. A grab sample of dacitic tuff, containing 1 to 2 per cent disseminated pyrite and chlorite rich fractures, assayed 0.540 grams per tonne gold and 13.5 grams per tonne silver (Property File - Carpenter, 1986, p.12, Sample 37691).

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FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE034**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRONTIER - GEM**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 46 21 N
LONGITUDE: 122 14 22 W
ELEVATION: 485 Metres

NORTHING: 5513614
EASTING: 554763

LOCATION ACCURACY: Within 500M

COMMENTS: Sample site CR-027 (Assessment Report 14845, Figure 4).

COMMODITIES: Silver Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Galena Sphalerite
ASSOCIATED: Quartz Sericite
ALTERATION: Quartz Sericite
ALTERATION TYPE: Silicific'n Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratabound
CLASSIFICATION: Hydrothermal Epigenetic
COMMENTS: Zone strikes west-northwest.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Brokenback Hill	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			

LITHOLOGY: Sericite Schist
Feldspar Crystal Tuff
Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP:
COMMENTS: Island arc sequence, preserved in a roof pendant. GRADE:

INVENTORY

ORE ZONE: SHOWING REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	13.5000	Grams per tonne
Lead	1.0500	Per cent
Zinc	0.8600	Per cent

COMMENTS: Sample containing pyrite and galena rich veinlets up to 1 centimetre
REFERENCE: Assessment Report 14845, pages 2, 3, Sample CR-027.

CAPSULE GEOLOGY

The Frontier showing occurs 1 kilometre west of the Lillooet River and 7 kilometres west-northwest of the north end of Harrison Lake.

The showing is hosted in a sequence of feldspar crystal tuff (greenstone) and sericite schist of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. The unit is intruded by a Late Cretaceous granodiorite stock, to the west and south.

A west-northwest striking zone of silicified sericite schist is lightly mineralized with pyrite and pyrrhotite and, to a lesser extent, with galena and sphalerite. A grab sample, containing pyrite and galena rich veinlets up to 1 centimetre in diameter, assayed 13.5 grams per tonne silver, 0.86 per cent zinc and 1.05 per cent lead (Assessment Report 14845, p. 2-3, Sample CR-027).

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DATE CODED: 1990/05/21
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE035**

NATIONAL MINERAL INVENTORY:

NAME(S): **TOIL**, FIVE MILE BAY

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 33 N
LONGITUDE: 122 03 32 W
ELEVATION: 30 Metres

NORTHING: 5504867
EASTING: 567875

LOCATION ACCURACY: Within 500M

COMMENTS: Drill hole PDH #6 (Assessment Report 13600, Figure 3).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Sericite Clay Quartz
ALTERATION: Sericite Clay Quartz
ALTERATION TYPE: Sericitic Argillic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: 1300 x 0400 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Quartz-sericite schist occurs over a 400 by 1300 metre area.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	

DATING METHOD: Fossil
MATERIAL DATED: Various fossils

LITHOLOGY: Quartz Sericite Schist
Andesitic Crystal Tuff
Andesitic Lapilli Tuff
Andesitic Breccia
Rhyolitic Breccia
Argillaceous Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: Syn-mineralization GRADE:
COMMENTS: Roof pendant of island arc volcanics and sediments.

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1984
SAMPLE TYPE: Drill Core
COMMODITY: Gold GRADE: 1.1600 Grams per tonne
COMMENTS: Hole PDH #6, 7.62 to 9.14 metres.
REFERENCE: Assessment Report 13600, Appendix 2.

CAPSULE GEOLOGY

A zone of intense pyritization occurs along the west shore of Harrison Lake at Five Mile Bay.
A sequence of andesitic crystal tuffs, lapilli tuffs and breccia containing interbedded rhyolitic breccia and argillaceous sediments are preserved in a roof pendant along the west side of Harrison Lake. The sequence forms part of the Lower Cretaceous Brokenback Hill Formation, Fire Lake Group. These lithologies are locally altered to schist as a result of sericite-clay alteration and silicification.
The showing consists of a northwest trending zone of quartz-sericite schist, developed over a 1300 by 400 metres area, along Five Mile Bay. Disseminations, blebs and veins of pyrite comprise 2 to 10 per cent of the schist. A percussion hole (PDH #6) encountered 1.16 grams per tonne gold between 7.62 metres and 9.14 metres (Assessment Report 13600, Appendix 2).
The Toil showing been explored periodically, since its discovery

CAPSULE GEOLOGY

in 1981, for volcanogenic massive sulphides by Diamond Resources Inc. and LMX Resources Ltd.

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N MINER Mar. 14, 1985
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DATE CODED: 1990/05/22
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CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNE036**

NATIONAL MINERAL INVENTORY:

NAME(S): **RAFFUSE CREEK**, ALPEN, SHANNON

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 39 51 N
LONGITUDE: 122 59 33 W
ELEVATION: 820 Metres

NORTHING: 5501292
EASTING: 500541

LOCATION ACCURACY: Within 500M

COMMENTS: Sample E274 (Assessment Report 11052, Map 2).

COMMODITIES: Copper Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

DIMENSION: 0002 Metres STRIKE/DIP:

COMMENTS: The shear zone is up to 1.5 metres wide. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER

Lower Cretaceous Gambier Undefined Formation

DATING METHOD: Fossil

MATERIAL DATED: Various fossils

Upper Jurassic

Coast Plutonic Complex

LITHOLOGY: Andesitic Lapilli Tuff
Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Gambier Plutonic Rocks

COMMENTS: Roof pendant within the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Grab

COMMODITY

GRADE

Copper 0.5000 Per cent

Lead 0.1600 Per cent

Zinc 4.0600 Per cent

COMMENTS: From 5 centimetre thick quartz vein.

REFERENCE: Assessment Report 11052, Table 1, Sample E274.

CAPSULE GEOLOGY

A roof pendant, consisting of andesitic lapilli tuff of the Lower Cretaceous Gambier Group, outcrops over a 400 by 200 metre area. The pendant is located 500 metres west of the confluence of A Creek and Raffuse Creek and 12.5 kilometres east-southeast of Squamish. The pendant occurs in Upper Jurassic granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

Several shear zones, up to 1.5 metres wide, contain quartz veins and lenses, up to 5 centimetres wide. These are mineralized with pyrite, chalcopyrite, sphalerite and galena. A sample, of a 5 centimetre wide vein, assayed 0.50 per cent copper, 4.06 per cent zinc and 0.16 per cent lead (Assessment Report 11052, Table 1, Sample E274).

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RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 65
REPORT: RGEN0100

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DATE CODED: 1990/05/24
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CODED BY: PSF
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE037**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRED**, ALSTER

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 39 N
LONGITUDE: 122 55 07 W
ELEVATION: 945 Metres

NORTHING: 5491660
EASTING: 505884

LOCATION ACCURACY: Within 500M

COMMENTS: Sample site 55623 (Assessment Report 14036, Map 3).

COMMODITIES: Copper Silver Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Galena Sphalerite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Jurassic-Cretaceous
Upper Jurassic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Plagioclase Porphyritic Dacitic Flow
Plagioclase Porphyritic Andesitic Flow

HOSTROCK COMMENTS: Gambier Group ranges from Upper Jurassic to Lower Cretaceous.
The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Roof pendant within the southern Coast Plutonic Complex.

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: ROADCUT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1985

COMMODITY

GRADE

Silver	7.1000	Grams per tonne
Copper	0.3400	Per cent
Lead	0.4000	Per cent
Zinc	1.0000	Per cent

REFERENCE: Assessment Report 14036, page 13, Sample 55623.

CAPSULE GEOLOGY

Sparsely mineralized volcanics are exposed in several road cuts 1.5 kilometres south of Meslilloet Creek and 1.8 kilometres east of the Indian River confluence.

The showing is hosted in plagioclase porphyritic, andesitic to dacitic flows of the Upper Jurassic to Lower Cretaceous Gambier Group, which occur at the south end of the Indian River roof pendant.

Mineralization consists of disseminated pyrite forming up to 10 per cent of the host rock with minor to trace amounts of disseminated chalcopyrite, galena and sphalerite. The mineralization tends to occur near volcanic/chert contacts. A grab sample contained 0.34 per cent copper, 0.4 per cent lead, 1 per cent zinc and 7.1 grams per tonne silver (Assessment Report 14036, p. 13, Sample 55623).

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 67
REPORT: RGEN0100

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CODED BY: PSF
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE038**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOTSPRING, QUET, SLO,
SOUTHRIDGE, FRONTIER, GEM,
DAN, 350 EAST, 650 EAST,
900 EAST, 1500 EAST**

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G09W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 44 32 N
LONGITUDE: 122 21 04 W
ELEVATION: 869 Metres

NORTHING: 5510172
EASTING: 546752

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralization at the south end of the Slo 2 claim (Assessment Report 9775, Plate 2).

COMMODITIES: Silver Gold Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz K-Feldspar
ALTERATION TYPE: Silicific'n Potassic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stockwork Stratabound
CLASSIFICATION: Hydrothermal Volcanogenic Epigenetic
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn 105 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 1000 x 100 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralization occurs in outcrops for 1 kilometre along the river over a 100 metre vertical extent.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Peninsula	
DATING METHOD: Fossil			
MATERIAL DATED: Various fossils			
Lower Cretaceous	Fire Lake	Brokenback Hill	

LITHOLOGY: Rhyolite Tuff
Dacitic Tuff
Rhyolite Lapilli Tuff
Rhyolite
Dacitic Lapilli Tuff
Dacite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP:
COMMENTS: Island arc sequence preserved as a roof pendant.
PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1990
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 131.0000 Grams per tonne
Gold 0.8400 Grams per tonne
Lead 0.9200 Per cent
Zinc 5.0600 Per cent
COMMENTS: The best results obtained from individual samples from drillhole NQ90-2 over 1.5 metres for silver, zinc and lead, and average gold over 57.7 metres.
REFERENCE: Assessment Report 20983.

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1990
SAMPLE TYPE:	Chip		
COMMODITY		GRADE	
Silver		442.3000	Grams per tonne
Gold		3.3900	Grams per tonne
Lead		17.2000	Per cent
Zinc		9.7000	Per cent

COMMENTS: Taken across one metre.
 REFERENCE: T. Schoeter, personal communication, 1990.

CAPSULE GEOLOGY

The Quet occurrence is located on the south side of North Sloquet Creek, 15 kilometres west-southwest of the north end of Harrison Lake.

The first record of exploration at the Quet occurrence area was in 1944 by Cominco prospectors panning for gold on Simpson Creek. A gold source was found in gossanous cliffs above the creek. In 1979, Cominco restaked the area as the Slo claims and completed soil and rock sampling on Sloquet and Simpson creeks. This led to the discovery of a galena-sphalerite showing. The claims lapsed in 1986. In 1986, Adrian Resources Ltd. and Danbus Resources Ltd. held the ground as the Frontier and Gem claims, respectively. Rock and soil geochemical sampling and geological mapping were completed. In 1987, the Quet 1 and 2 claims were staked and optioned to Aranlee Resources Ltd., who staked the Quet 3 and 4 claims. Additional property exploration in 1988 led to the discovery of the Dan showing, south of the North Sloquet Creek. In 1989, new gold-silver zones were discovered on the ridge between the North and South Sloquet creeks, including the 350 East, 650 East, 900 East and 1500 East showings. Noranda Exploration Co. Ltd. examined the property in 1989 and optioned the property from Aranlee Resources Ltd. in 1990. A comprehensive exploration program was carried out by Noranda Exploration Co. Ltd. and was followed up by a second phase which included 1251.9 metres of diamond drilling in 7 holes to test targets along the Southridge zone.

Regionally, the Lower Cretaceous Fire Lake Group rocks underlie the Quet occurrence. The Fire Lake Group consists of a volcano-sedimentary sequence deposited in an island arc setting. The main lithological units are the Peninsula Formation and the Brokenback Hill Formation. The Peninsula Formation is a fining upward sedimentary sequence deposited in a fluvial to marine shelf environment. The overlying Brokenback Hill Formation is a complex volcanic sequence of subaqueous autoclastic and epiclastic rocks that are mainly intermediate in composition. Two phases of thrusting related to Late Cretaceous oblique convergence and Tertiary dextral and normal dip-slip faulting have formed regional and local structural features. Metamorphism up to greenschist grade has occurred in Gambier Group rocks.

Mineralization occurs in outcrops over 1 kilometre strike length and is exposed over a vertical extent of approximately 100 metres. The mineralization is hosted in a stratabound zone of intensely silicified rhyolitic tuffs. Potassium feldspar (orthoclase) alteration and silicification are present. Other rock types consist of dacitic to andesitic lapilli tuffs and minor conglomerate of the Peninsula Formation. The tuffs are intruded, to the south, by migmatite of the Pemberton Diorite Complex and cut by late stage north-northwest trending faults. The intrusion consists of unaltered, fine to medium grained, equigranular biotite-hornblende diorite. All rock types have been cut by late andesite dikes and sills.

Mineralization consists of sphalerite, galena and chalcopyrite occurring as disseminations in the tuff and in an extensive quartz vein stockwork. A chip sample, taken across 1 metre, assayed 3.39 grams per tonne gold, 442.3 grams per tonne silver, 17.2 per cent lead and 9.7 per cent zinc (Property File - Schroeter, T. (1990)). A sample taken across a 1 metre thick bed of cherty rhyolite tuff assayed 1.788 per cent zinc, 0.354 per cent lead and 0.412 per cent copper (Assessment Report 9775, page 3).

Drilling on the Southridge zone in 1990 tested combined geological, geophysical and geochemical anomalies. Sphalerite-galena-rich quartz veinlet and flooded zones were identified as the source of soil and rock gold and silver geochemical values (Assessment Report 20983). The mineralized zones are hosted in highly silicified felsic and intermediate lapilli tuffs. The best gold intersection was from drillhole NQ90-2 which yielded an average of 0.84 gram per tonne gold over 57.7 metres. The highest values of

CAPSULE GEOLOGY

other elements from separate samples were 5.06 per cent zinc (over 1.5 metres), 0.92 per cent lead (1.5 metres) and 131 grams per tonne silver (1.5 metres) (Assessment Report 20983).

In 1997, Mount Hope Resources Corp. expanded its drilling program to approximately 1950 metres in eleven holes, to test the down-dip extension of a zone of gold-silver-base metal mineralization in quartz veins and stockworks in steep structures within pyritic, stratabound felsic volcanics of the Gambier Group. Mineralized andesite dikes, in the main crosscutting structures were shown to be syn to postmineral in age. They are locally intensely altered to biotite and chlorite and are also bleached, silicified and veined. One hole assayed 1.3 grams per tonne gold and 42.26 grams per tonne silver over 34.96 metres and another assayed 0.9 gram per tonne gold and 16.22 grams per tonne silver over 24.83 metres (Exploration in BC 1997, page 63). The company feels that the system has the potential to develop into a large, low-grade bulk-mineable deposit. Drilling also showed that the mineralized siliceous pyritic tuff is underlain by an intensely potassically altered, 'nodular' biotitic andesite tuff unit. Weak molybdenite mineralization was encountered. This may indicate an intrusion at depth.

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N MINER May 4, 1998
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Columbia

DATE CODED: 1990/05/28
DATE REVISED: 1997/07/30

CODED BY: TGS
REVISED BY: KJM

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092GNE039**

NATIONAL MINERAL INVENTORY:

NAME(S): **SLOQUET CREEK HOTSPRINGS**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G09W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 43 47 N
LONGITUDE: 122 19 40 W
ELEVATION: 213 Metres

NORTHING: 5508798
EASTING: 548446

LOCATION ACCURACY: Within 500M

COMMENTS: Hotsprings near Sloquet Creek on Timber Lease Lot 4662, 13 kilometres west from the north tip of Harrison Lake (McDonald, 1978).

COMMODITIES: Hotspring

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Hotspring.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown

CLASSIFICATION: Epithermal Industrial Min.

TYPE: T02 Geothermal spring

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Fire Lake	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Meta Volcanic Rock
Meta Sediment/Sedimentary Rock
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Sloquet Creek Hotsprings occurrence is in an area underlain by metavolcanic and metasedimentary rocks of the Lower Cretaceous Fire Lake Group, close to the contact with granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex.

The hotsprings seep from a bank of a creek a few metres from Sloquet Creek. The water is clear with a sulphur odour and taste, and flows at 153 litres per minute. The temperature of the springs range from 59 to 68 degrees Centigrade and the pH is 8.9. Much algae grows in the stream outlet.

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DATE CODED: 1990/06/15
DATE REVISED: 1990/06/15

CODED BY: GO
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE040**

NATIONAL MINERAL INVENTORY:

NAME(S): **SKOOKUMCHUCK HOT SPRINGS**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 58 02 N
LONGITUDE: 122 26 13 W
ELEVATION: 135 Metres

NORTHING: 5535138
EASTING: 540380

LOCATION ACCURACY: Within 500M

COMMENTS: Hotsprings on private Lot 1747 along the Lillooet River, 3 kilometres north along the road from Skookumchuck Indian Reserve 4, 32 kilometres north-northwest from the tip of Harrison Lake (McDonald, 1978).

COMMODITIES: Hotspring

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Hotspring.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown

CLASSIFICATION: Epithermal Industrial Min.

TYPE: T02 Geothermal spring

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Fire Lake

FORMATION

Brokenback Hill

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Volcanic Rock
Meta Sediment/Sedimentary Rock
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Skookumchuck Hot Springs occurrence is in an area underlain by metavolcanic and metasedimentary rocks of the Lower Cretaceous Fire Lake Group (Brokenback Hill Formation), close to the contact with Cenozoic-Mesozoic Coast Plutonic Complex granodiorite.

The springs percolate from old river gravels below the road along the Lillooet River. The water is clear, with a sulphur smell and a weak sulphur taste, and flows at the rate of 62 litres per minute. The temperature of the springs is 54 degrees Centigrade and the pH is 8.05. Gas bubbles up from the bottom of the pool.

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GSC OF 603; 2203; 2526

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DATE CODED: 1990/06/15
DATE REVISED: 1990/06/15

CODED BY: GO
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE041**

NATIONAL MINERAL INVENTORY:

NAME(S): **FM 3**, SNOW SHOWING, FM,
RES

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

MINING DIVISION: New Westminster

LATITUDE: 49 50 46 N
LONGITUDE: 122 23 09 W
ELEVATION: 1310 Metres

UTM ZONE: 10 (NAD 83)
NORTHING: 5521702
EASTING: 544156

LOCATION ACCURACY: Within 500M

COMMENTS: The location of a trench on the FM 3 claim (Assessment Report 21735).

COMMODITIES: Gold Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite

COMMENTS: Sphalerite and chalcopyrite are minor.

ASSOCIATED: Quartz Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

DIMENSION: 5 x 2 Metres STRIKE/DIP:

COMMENTS: The 5-metre wide shear zone is exposed along strike for 2 metres and possibly for several hundred metres.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Lower Cretaceous

Fire Lake

Brokenback Hill

Lower Cretaceous

Fire Lake

Peninsula

LITHOLOGY: Chloritic Tuff
Brecciated Tuff
Andesite Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

COMMENTS: Hosted in an island arc sequence preserved in a roof pendant.

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1991

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver	4.9000	Grams per tonne
Gold	0.1450	Grams per tonne
Copper	0.2100	Per cent
Lead	3.0100	Per cent
Zinc	1.2400	Per cent

COMMENTS: Chip sample FM-T1 between 2.0 and 2.5 metres.

REFERENCE: Assessment Report 21735.

CAPSULE GEOLOGY

The FM 3 showing is situated on the southwest flank of Fire Mountain at 1524 metres elevation above Fire Lake, 21.5 kilometres northwest of the northwest end of Harrison Lake.

The Money Spinner (092GNE002) is the most important of a cluster of copper-gold quartz vein mineral occurrences on the southwestern flank of Fire Mountain. In the 1970s and 1980s, the area was explored for its base metal potential. In 1983, a number of very low frequency electromagnetic and high magnetic anomalies were outlined over Fire Mountain. Kidd Creek Mines also outlined a number of stream sediment anomalies. In 1987, Plaskey Development Enterprises conducted a prospecting program over part of the property and discovered a strongly pyrite-clay-silica-altered gossanous zone. In 1990, Burmin Resources entered into a joint venture with Plaskey Development Enterprises. Geological mapping and geochemical sampling

CAPSULE GEOLOGY

were conducted. In 1991, a follow-up program was carried out.

Regionally, the FM 3 showing is hosted in a belt of volcanic and sedimentary rocks of the Lower Cretaceous Fire Lake Group, which extends northwest from Harrison Lake for 40 kilometres. The Fire Lake Group is an island arc sequence preserved in a roof pendant, which occurs mostly west of the Lillooet River near the eastern margin of the Jurassic to Cretaceous Coast Plutonic Complex. The assemblage has been subjected to thrust faulting, large amplitude folding and regional metamorphism up to greenschist facies. Immediately to the east of the FM 3 occurrence in the Lillooet Valley, the Harrison Lake shear zone and related structures are interpreted as important mineral controlling structures.

The Peninsula and Brokenback Hill formations of the Fire Lake Group are recognized on at the FM 3 showing. The Peninsula Formation consists of a lower conglomerate and upper interbedded arkose and pyritic slate. The overlying Brokenback Hill Formation consists of four lithological units. The lowest unit is composed of interbedded feldspar crystal tuff with slate or phyllite. This unit is overlain by andesitic to intermediate volcanic rocks, which are in turn overlain by coarse grained volcanoclastic sandstone. Pyroclastic rocks dominated by lapilli tuffs comprise the remaining unit. These rocks have been affected by three phases of deformation.

In 1990, two rock samples taken from the mid-eastern part of the FM 3 claim yielded anomalous precious and base metal values. The samples were taken from brecciated tuff with disseminated pyrite, galena and chalcopyrite. Sample FDF-120 yielded 3.91 grams per tonne gold, 10.8 grams per tonne silver, 0.16 per cent copper, 1.19 per cent lead and 3.47 per cent zinc (Assessment Report 21036). Sample FDR-121 yielded 0.14 gram per tonne gold, 4.4 grams per tonne silver, 0.20 per cent copper, 0.50 per cent lead and 1.85 per cent zinc.

The occurrence was named the Snow showing in 1991. Trenching and detailed mapping have revealed the showing is a 5-metre wide shear zone with disseminated pyrite, galena, sphalerite and chalcopyrite. Shear textures include a strong lineation, boudinaging, quartz-carbonate flooding and brecciation. The host rock is a green, fine grained, chloritic tuff. The shear is exposed for 2 metres along strike but mineralized overburden and sub-outcrop suggest a strike length of several hundred metres. A hand trench was excavated across the shear zone and samples taken every 0.5 metre. Sample FM-T1 (2.0 to 2.5 metres) yielded 0.145 gram per tonne gold, 0.21 per cent copper, 3.02 per cent lead, 1.94 per cent zinc and 16.9 grams per tonne silver (Assessment Report 21735). Sample FM-T1 (4.5 to 5.0 metres) yielded 0.745 gram per tonne gold, 0.10 per cent copper, 0.51 per cent lead, 1.24 per cent zinc and 4.9 grams per tonne silver (Assessment Report 21735).

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EMPR ASS RPT 11796, *21036, *21735
EMPR FIELDWORK 1980, pp. 165-184; 1984, pp. 42-53; 1985, pp. 120-131
GSC MAP 1069A; 1151A
GSC MEM 335, pp. 42-44, 191, 192
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195, 197-204; 90-1F, pp. 95-107
Arthur, A. (1987): Mesozoic Stratigraphy and Paleontology of the West Side Of Harrison Lake, Southwestern British Columbia, unpublished M.Sc. thesis, University of British Columbia
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNE042**

NATIONAL MINERAL INVENTORY:

NAME(S): **FM 1**, SNOW SHOWING, FM,
RES

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 52 21 N
LONGITUDE: 122 22 46 W
ELEVATION: 1905 Metres

NORTHING: 5524639
EASTING: 544591

LOCATION ACCURACY: Within 500M

COMMENTS: The location of sample FDR-139 on the FM 1 claim (Assessment Report 21036).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Chlorite Limonite
ALTERATION TYPE: Chloritic Argillic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Fire Lake	Brokenback Hill	
Lower Cretaceous	Fire Lake	Peninsula	

LITHOLOGY: Chloritic Tuff
Brecciated Tuff
Andesite Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
COMMENTS: Hosted in an island arc sequence preserved in a roof pendant.

PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1991
SAMPLE TYPE: Grab
COMMODITY

COMMODITY	GRADE	
Silver	34.2000	Grams per tonne
Gold	2.5500	Grams per tonne
Copper	1.1000	Per cent

COMMENTS: Sample FDR-139.
REFERENCE: Assessment Report 21036.

CAPSULE GEOLOGY

The FM 1 showing is situated on the northeast flank of Fire Mountain at 1905 metres elevation, 21.5 kilometres northwest of the northwest end of Harrison Lake.

The Money Spinner (092GNE002) is the most important of a cluster of copper-gold quartz vein mineral occurrences on the southwestern flank of Fire Mountain. In the 1970s and 1980s, the area was explored for its base metal potential. In 1983, a number of very low frequency electromagnetic and high magnetic anomalies were outlined over Fire Mountain. Kidd Creek Mines also outlined a number of stream sediment anomalies. In 1987, Plaskey Development Enterprises conducted a prospecting program over part of the property and discovered a strongly pyrite-clay-silica-altered gossanous zone. In 1990, Burmin Resources entered into a joint venture with Plaskey Development Enterprises. Geological mapping and geochemical sampling were conducted. In 1991, a follow-up program was carried out.

Regionally, the FM 1 showing is hosted in a belt of volcanic and sedimentary rocks of the Lower Cretaceous Fire Lake Group, which

CAPSULE GEOLOGY

extends northwest from Harrison Lake for 40 kilometres. The Fire Lake Group is an island arc sequence preserved in a roof pendant, which occurs mostly west of the Lillooet River near the eastern margin of the Jurassic to Cretaceous Coast Plutonic Complex. The assemblage has been subjected to thrust faulting, large amplitude folding and regional metamorphism up to greenschist facies. Immediately to the east of the FM 1 occurrence in the Lillooet Valley, the Harrison Lake shear zone and related structures are interpreted as important mineral controlling structure.

The Peninsula and Brokenback Hill formations of the Fire Lake Group are recognized at the FM 1 showing. The Peninsula Formation consists of a lower conglomerate and upper interbedded arkose and pyritic slate. The overlying Brokenback Hill Formation consists of four lithological units. The lowest unit is composed of interbedded feldspar crystal tuff with slate or phyllite. This unit is overlain by andesitic to intermediate volcanic rocks, which are in turn overlain by coarse grained volcanoclastic sandstone. Pyroclastic rocks dominated by lapilli tuffs comprise the remaining unit. These rocks have been affected by three phases of deformation.

In 1990, several samples taken on the northwest flank of Fire Mountain and the north-central part of the FM 1 claim yielded anomalous precious and base metal values. In outcrop, these samples are quartz veins and stockworks containing pyrite and chalcopyrite. Strong limonite staining and chlorite alteration are present. The veins and stockwork are faulted or shear related. Sample FDR-139 yielded 2.55 grams per tonne gold, 34.2 grams per tonne silver and 1.10 per cent copper (Assessment Report 21036). Sample FDR-125, taken 600 metres to the east-southeast, yielded 1.71 grams per tonne gold, 40.0 grams per tonne silver and 1.88 per cent copper. Sample FDR-126, taken 350 metres to the northeast, yielded 1.31 grams per tonne gold, 65.0 grams per tonne silver and 1.86 per cent copper. Several other samples in the vicinity yielded anomalous gold and silver values.

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GSC MEM 335, pp. 42-44,191,192
GSC OF 2203
GSC P 86-1B, pp. 699-706; 89-1E, pp. 177-187; 90-1E, pp. 183-195, 197-204; 90-1F, pp. 95-107
Arthur, A. (1987): Mesozoic Stratigraphy and Paleontology of the West Side Of Harrison Lake, Southwestern British Columbia, unpublished M.Sc. thesis, University of British Columbia
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW001**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCNAUGHTON POINT**, MIDDLE POINT

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W 092F09E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 33 52 N
LONGITUDE: 124 00 04 W
ELEVATION: 25 Metres

NORTHING: 5490687
EASTING: 427608

LOCATION ACCURACY: Within 500M

COMMENTS: Location determined from plot on Geological Survey of Canada Open File 611 (occurrence number 1).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Calcite
MINERALIZATION AGE: Upper Triassic

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone
COMMENTS: Within a north trending roof pendant.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Limestone
Siliceous Schist
Basalt
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks Wrangell
METAMORPHIC TYPE: Contact RELATIONSHIP:
COMMENTS: Within a roof pendant in the southern Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
GRADE:

CAPSULE GEOLOGY

Crystalline limestone outcrops 1.0 kilometre north of McNaughton Point (Middle Point), 8.0 kilometres southeast of Pender Harbour on the Sechelt Peninsula. The limestone occurs as narrow lenticular beds that are faulted and folded. These beds are contained in finely banded siliceous schist within a narrow, north trending pendant of the Upper Triassic Karmutsen Formation (Vancouver Group) basalt in quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex (in this area Upper Jurassic) (Geological Survey of Canada Open File 611).

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GSC MAP 42-1963; 1069A; 1386A
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/07/19

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW002**

NATIONAL MINERAL INVENTORY:

NAME(S): **THORNHILL CREEK**, SALMON INLET

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 37 24 N
LONGITUDE: 123 35 24 W
ELEVATION: 701 Metres

NORTHING: 5496920
EASTING: 457387

LOCATION ACCURACY: Within 500M

COMMENTS: Location determined from plot on Geological Survey of Canada Open File 611 (occurrence number 2).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Calcite

MINERALIZATION AGE: Lower Cretaceous

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
DATING METHOD: Fossil			
Cretaceous-Tertiary			Coast Plutonic Complex

LITHOLOGY: Limestone
Andesitic Flow
Andesitic Pyroclastic
Rhyodacite Flow
Rhyodacite Pyroclastic
Greenstone
Argillite
Schist
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Contact

COMMENTS: Within a roof pendant in the southern Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

Gambier

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

A mass of white, crystalline limestone is reported to occur approximately 2.4 kilometres up Thornhill Creek on the southeast side of Salmon Inlet, a northeast trending extension of Sechelt Inlet. The deposit is situated near the north end of a 6 kilometre long pendant of andesitic to rhyodacitic flows and pyroclastics, greenstone, argillite and schist of the Lower Cretaceous Gambier Group lying in quartz diorite of the Tertiary-Cretaceous Coast Plutonic Complex.

BIBLIOGRAPHY

EMPR BULL 23-106; 40-97
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/07/19

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

Coast Plutonic Complex. A broad, steeply south dipping zone of complex shear deformation and metamorphism, the Britannia shear zone, crosses the pendant in a northwest direction; all orebodies are in the shear zone. A narrow zone of foliated rocks, the Indian River shear zone, is subparallel to the Britannia shear zone and transects the northeast part of the Britannia pendant. The deformed rocks are cut by dacite dykes and several major sets of faults. The Britannia roof pendant is one of many northwest trending bodies within, and in part metamorphosed by, the Coast Plutonic Complex. The pendant is comprised of fresh to weakly metamorphosed rocks with sharp contacts against plutonic rocks, and belongs to the Lower Cretaceous Gambier Group. The Coast plutonic rocks consist of older, commonly foliated bodies ranging from diorite to granodiorite and younger quartz diorite to quartz monzonite intrusions (Squamish pluton). The plutonic rocks have produced contact metamorphic aureoles up to a hundred metres wide in the Britannia pendant.

The Britannia mine area within the Britannia shear zone is dominated by strongly foliated pyroclastic rocks of dacitic to andesitic volcanism intercalated near the top and overlain by dark marine shales and siltstones. Extensive units of fine-grained andesitic rocks were formed in the mine area during hiatuses in dacitic volcanism; one hiatus occurred during the period of formation of massive sulphides and related deposits after extrusion of a dacite tuff breccia. The lower pyroclastic sequence and the upper shale-siltstone sequence are cut by many dacitic and andesitic dykes. The lower sequence is composed of pyroclastic dacite tuff breccia (locally called the Bluff tuff breccia) that commonly grades to dacitic crystal and lithic tuffs. This unit contains prominent dark, wispy fragments and grades at the top into distinctive beds which consist of intercalated black argillite and plagioclase crystal tuffs. These may be regularly interbedded, convoluted or disaggregated by soft rock deformation. Within the pyroclastic sequence there are also minor intercalations of black or green argillite or volcanic sandstone; fragments of argillite also form a normal component of the pyroclastic flow rocks. Overlying the dacite tuff breccias are a sequence of andesitic tuffaceous sediments, andesitic tuffs and cherty andesitic sedimentary rocks. The overlying black argillite and siltstone are relatively featureless, poorly bedded, but commonly displays cleavage. Intercalations of greywacke may show graded bedding, shale sharpstones and minor slump structures. Although gross stratigraphic units can be defined over much of the area, numerous lateral lithologic variations, the scarcity of marker units in the mine area, and complex deformation hampers detailed stratigraphic and structural interpretation.

Intruding this package are two major dyke sequences and a group of small mafic dykes. The early dyke intrusions are composed of dark grey-green andesites that commonly have a slightly mottled texture that reflects a fragmental nature; they may also contain abundant quartz and chlorite amygdules. They are clearly almost contemporaneous with the pyroclastic flow rocks and may be highly deformed and mineralized. The second group are massive grey-green porphyritic dacites, which show no deformation or slight deformation on their margins. Their emplacement postdates major mineralization but they have a close spatial and structural relationship to orebodies. Late dykes are common but volumetrically insignificant and include lamprophyre, basalt and andesite.

Sulphide and genetically related deposits of anhydrite, quartz, silicified rock, cherty andesitic sedimentary rocks, bedded chert, and minor barite formed from volcanogenic hydrothermal solutions after formation of the dacite tuff breccia and during deposition of the overlying andesitic sedimentary and tuffaceous rocks. Sulphides occur as massive and stringer deposits and as disseminations and bedding plane concentrations. Massive deposits are mainly along and slightly above the upper contact of the dacite tuff breccia and commonly in or near cherty andesitic rocks. Stringer deposits are mainly in silicified dacite tuff breccia below the massive sulphide deposits. The ratio of stringer (80 per cent of ore) to massive deposits is much greater at Britannia than in most volcanogenic sulphide deposits. Original deposits and alteration halos are modified by shear deformation and segmented by faults. The massive sulphide-type orebodies mined were: Jane, Fairview Zinc (1.5 per cent of total ore mined); No. 8 (top), Beta, 040, Bluff (4.5 per cent of total ore mined); and No. 8 (bottom), No. 10, Empress, Victoria, West Victoria (15 per cent of total ore mined). Stringer-type orebodies mined were the Bluff, East Bluff, Jane, No. 4 (Bluff), No. 5, No. 10 and Fairview Veins (79 per cent of total ore mined). Other zones within and near the mine area include the Daisy, Homestake, Robinson, Furry Creek, Fairwest and 074.

The sulphide orebodies of Britannia are highly heterogeneous

CAPSULE GEOLOGY

mixtures of sulphides, remnant altered host rocks, and discrete veins. The main mineralogy of orebodies is simple and fairly constant. Pyrite is by far the most abundant mineral, with less chalcopyrite and sphalerite and minor erratically distributed galena, tennantite, tetrahedrite and pyrrhotite. The main nonmetallic minerals include quartz and muscovite (chlorite), anhydrite and siderite. The main massive orebodies, the Bluff, East Bluff, No. 5, No. 8 and 040 all show a marked zonal structure in which they have one or more high-grade chalcopyrite cores enveloped successively by a lower-grade zone and overlapping pyrite and siliceous zones. Zinc-rich ore tends to occur in the upper central parts of massive bodies and as almost sheet-like masses, like the Fairview Zinc vein. In section, the main orebodies have a crude lens-like shape oriented within the schistosity and are commonly connected to a steeply plunging root which may or may not be of ore grade. The other orebodies such as the Fairview Veins are stringer lodes and veins composed of thin sheet-like masses of chalcopyrite and pyrite with some quartz that appear generally parallel to the schistosity but actually cut across schistosity in plan at a small angle. Trace realgar, orpiment, scheelite, fluorite and pyrolusite occur in post-dacite, northeast trending gash quartz-carbonate veins in the No. 10 orebody.

The ore contains thin layers of sphalerite, pyrite and barite parallel to the bedding planes (So). Galena forms irregular intergrowths in sphalerite and is abundant in a few thin layers in zinc and zinc-copper ore. Gold is abundant in scattered narrow veins in the Homestake showing, in high-grade quartz veinlets in the No. 8 orebody and throughout the No. 5 and East Bluff orebodies. Massive ore in the No. 10 mine contains pyrrhotite and argentite inclusions within the chalcopyrite-rich massive orebody. Many of the orebodies contain several types of sulphide concentrations; the No. 8 massive orebodies grade from zinc-copper to copper. The No. 8 and No. 8A ore zones contain more zinc than the No. 8B. In the Bluff deposit, sphalerite is abundant only above the 1800 level; locally in this region siliceous copper-zinc stringer ore grades into massive zinc-copper ore toward the structural footwall (stratigraphic top).

A broad zone of pervasively silicified rock surrounds all stringer orebodies in the dacite tuff breccia except the Fairview veins. Quartz and quartz-pyrite veins occur throughout the silicified halos and increase in abundance and sulphide content toward an orebody. Pyrite is abundant as beds and nodules in andesitic sedimentary rocks above the Fairview Zinc orebody and locally pyritic layers show slumping features characteristic of soft sediment deformation. Anhydrite is abundant in pyritic andesitic sedimentary rocks and less abundant in the dacite tuff breccia in a broad elongate tabular halo around ore centres. Locally anhydrite forms massive deposits in tuffaceous sedimentary rocks, flanking and above orebodies, and is also found as distinct crosscutting veins in tensional zones. Locally the anhydrite has been converted to gypsum, especially near permeable zones where the gypsum occurs as narrow replacement veinlets. Within 60 to 90 metres of surface the conversion of anhydrite to gypsum is complete. James (1929) reports the presence of native sulphur in the mine. While the native sulphur may have gypsum or anhydrite associated with it none is present in the large gypsum masses (Open File 1991-15, page 35). Barite is disseminated and/or well bedded in zinc ore and nearby zinc-rich sedimentary rocks. Cherty andesitic sedimentary rocks and tuffs, locally with abundant pyrite, occur in and near massive sulphide bodies and host most of the No. 8 ore lenses.

Structure at the Britannia mine is complex; the earliest deformation (Do) produced widespread, open, concentric, flexural-slip folds (Fo) with subhorizontal to gently plunging, west-northwest trending axes. A major anticline was formed in the dacitic pyroclastic rocks and a major syncline was formed in argillite to the north. Further flexural-slip deformation was localized along the Britannia anticline, which became overturned to the north. Under continued stress, deformation consisting of several episodes of inhomogeneous strain produced the Britannia and other shear zones. Rocks were crystallized to S-tectonites with phase assemblages the same as those of lower greenschist facies regional metamorphism. East of the Jane basin, the axis of the Britannia shear zone follows the axis of the Britannia anticline; from the Jane basin to the west, the shear zone cuts across the south limb of the Britannia anticline. On the surface, the shear zone narrows to a single fault west of the Jane basin, whereas at depth and to the east it widens.

The first episode of shear deformation (D1) was the most intense. Parallel orientation of recrystallized chlorite and sericite plates and flattened lithic fragments define a foliation (S1). Numerous isoclinal folds (F1) were formed with S1 as an axial

CAPSULE GEOLOGY

plane cleavage. In the second episode of shear deformation (D2), some sericite which had formed parallel to S1 during D1 was recrystallized to define S2 into steeply dipping west plunging mesoscopic and microscopic folds (F2). A critical factor regarding the origin of the Britannia sulphide deposits is whether they are pre- or post- D1 (and D2). Recent observations support the hypothesis that sulphide and related deposits at Britannia were deformed during D1 (see Economic Geology, Payne, et. al. 1980, for extensive discussion). The existence of stratabound ore lenses within a felsic volcanic sequence, including pyroclastic breccias, suggests that the Britannia area was a structural locus for all initial and subsequent geological processes. Volcanism, hydrothermal activity, shear deformation, faulting, and metamorphism were all dynamic forces centred along the axis presently known as the Britannia shear zone.

Rocks were altered by volcanogenic hydrothermal solutions during sulphide deposition and by metasomatic hydrothermal solutions during shear deformation. Near orebodies, alteration during deformation was superimposed on ore-stage alteration such that the two are indistinguishable. Alteration is more pronounced in andesitic than in dacitic rocks. Andesitic rocks were altered to an assemblage of quartz-chlorite-sericite (epidote-albite-potassium feldspar-calcite). Some strongly altered andesitic rocks are distinguished from strongly altered dacitic rocks by the andesite's much higher TiO2 content. Studies of rocks near several of the orebodies show that much of the variation in chemical composition in all rock types is produced by ore-stage introduction of quartz, sulphides and sulphates.

A major compressional event (ending with D2) was followed by a period of relaxation of stress during which dacitic magma was intruded into dilated zones within the shear zone and surrounding rocks. In the shear zone, dacite formed dykes subparallel to S1 mainly in or near the dacite tuff breccia. Near the axis of the Britannia anticline, dykes coalesce upward and to the west and appear to cap some of the orebodies. Thin continuous andesite dykes are subparallel to S1 and cut the dacite dykes. Outside the shear zones, sills, dykes and irregular bodies of several varieties of dacite cut the Gambier Group rocks. The evidence suggests that most of the dykes at Britannia were intruded in the late stages of D2 deformation.

A third metamorphic foliation (S3) was formed locally, possibly following the dacite intrusion. It is parallel to northeast trending gash fractures in and near the dacites and to a set of northeast trending faults. The faults cut the dacite dykes and late andesite dykes and commonly contain vuggy quartz-carbonate veins. They have siderite-kaolinite alteration halos that are most intensely developed in rocks with abundant chlorite. A fourth metamorphic foliation (S4) is a widespread strain-slip cleavage and may have formed from a release of compression perpendicular to the shear zone.

A major set of post-dacite dyke faults cuts the Britannia shear zone subparallel to its margins and to S1. The faults converge upward and to the west to form one major fault. To the east, successive faults branch off a major footwall zone and cut diagonally across the shear zone subparallel to S1. These faults are characterized by a few centimetres to metres of gouge and/or strongly sheared rock. Many are braided and coalesce. In the major fault blocks, minor faults of a similar nature are abundant. Some show more than one age of movement. All the orebodies are cut by the minor faults and many are bounded by, or are near, one or more major faults.

Because many orebodies have contacts at or near major east striking faults and because most appear to be parts of a typical volcanogenic sulphide deposit, the present orebodies may represent faulted segments of a few original major sulphide deposits. A predeformation reconstruction suggests that the orebodies are segments of two original massive sulphide deposits; this requires a near vertical displacement along one fault zone followed by sub-horizontal offset with a cumulative right-lateral displacement of a couple of thousand of metres (Economic Geology, Payne et. al., 1980).

In summary, the Britannia ore deposits were formed from hydrothermal solutions genetically related to dacitic volcanism. Massive zinc, zinc-copper and copper deposits were formed near the contact of dacite tuff breccia and overlying fine andesitic tuff and sedimentary rocks. Siliceous stringer zones were formed in the dacitic tuff breccia and grade upward into massive deposits. Massive to disseminated bodies of anhydrite, pyrite, and minor barite were formed near the orebodies from exhalite solutions. Cherty andesitic sedimentary rocks are common near the orebodies. A northeast trending compressive stress couple produced the following events: a) Broad concentric folds, under continued stress, became tighter and

CAPSULE GEOLOGY

slightly overturned at Britannia. The early part of deformation overlapped the late stages of dacitic volcanism and hydrothermal activity, and produced a series of subparallel fractures which acted as channelways for hydrothermal solutions. b) With continuing stress, several episodes of inhomogeneous strain produced the schistose rocks which define the Britannia shear zone. Rocks were recrystallized into S-tectonites and sulphide deposits were deformed in part by fracture and in part by plastic flow, and were segmented into a series of en echelon stringers parallel to S1. Sulphides and quartz in the orebodies show typical deformation textures similar to those of the enclosing rock. c) Ore-stage hydrothermal solutions and deformation stage solutions caused chemical alteration. Andesitic rocks were effected more than dacitic rocks and show increases in Al₂O₃, K₂O, SiO₂ and H₂O and decreases in CaO, FeO and MnO. TiO₂ remains relatively constant and its content can be used to distinguish some strongly altered andesitic rocks from similarly altered dacitic rocks. d) Orebodies were deformed during several periods of faulting. Following an early period of right-lateral movement, dacite dyke swarms were intruded into the shear zone generally parallel to S1 and concentrated in the dacitic tuff breccia. Dykes were cut by northeast trending quartz-carbonate gash fractures, which near orebodies contain sulphides, mainly chalcopyrite and pyrrhotite, remobilized from the orebodies. e) A major set of late east faults displaces the rock and orebodies with a cumulative right-lateral horizontal component of motion to a maximum of 2438 metres (Economic Geology, Payne, J.G. et al., 1980).

Measured and drill indicated reserves in the No. 10 mine at the time of closure were 1,424,147 tonnes grading 1.9 per cent copper (Property File - Northcote, K.).

Past work consisted of extensive underground and surface development. Between 1905 and 1977, the Britannia orebodies yielded approximately 47.8 million tonnes of ore grading 1.1 per cent copper, 0.65 per cent zinc, 6.8 grams per tonne silver and 0.6 grams per tonne gold.

The mine site became the B.C. Museum of Mining, a National Historic Site in 1975.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GNW004**

NATIONAL MINERAL INVENTORY:

NAME(S): **BANK OF VANCOUVER (L.3096)**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 37 N
LONGITUDE: 123 02 26 W
ELEVATION: 914 Metres

NORTHING: 5491596
EASTING: 497068

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Lot 3096, 500 metres east of Seymour River, 1.25 kilometres south of Loch Lomond, 16 kilometres south-southeast from the town of Squamish (Minister of Mines Annual Report 1965).

COMMODITIES: Copper Molybdenum Zinc

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Sphalerite
ASSOCIATED: Hematite Magnetite Pyrite Chlorite Carbonate
Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Breccia Disseminated
CLASSIFICATION: Epigenetic Hydrothermal Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granodiorite
Quartz Diorite
Granitic Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

Gambier

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area is on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. The Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented northwesterly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Bank of Vancouver occurrence is underlain by granodiorite of the Coast Plutonic Complex which locally contains large blocks of quartz diorite inclusions. Sulphide mineralization occurs as narrow and irregular stringers in a zone 3 to 4.5 metres wide in brecciated granodiorite. In places, the breccia zone is cemented by hematite, magnetite, chalcopyrite, pyrite, chlorite, carbonate and quartz with minor amounts of molybdenite and sphalerite. Just to the north of this showing, small spherical specks of chalcopyrite occur in a granitic dyke cutting the granodiorite intrusive. The dyke contains numerous small miarolitic cavities filled with biotite, magnetite, pyrite and chalcopyrite.

Past work included adits.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 86
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/04

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW005**

NATIONAL MINERAL INVENTORY: 092G11 Cu6

NAME(S): **HOWE COPPER, MOUNT DONALDSON, ZEL,
PACIFIC COPPER, DONALDSON MTN, KAREN,
WEST, ANTHONY, CU**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:
LATITUDE: 49 42 35 N
LONGITUDE: 123 27 13 W
ELEVATION: 1417 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Main adit on the west shore of Smith Lake at the summit of Mount Donaldson, between Clowhom and Sechelt lakes, 15 kilometres west-northwest from the pulp mill at Woodfibre (Assessment Report 11619).

Underground

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

NORTHING: 5506456
EASTING: 467296

COMMODITIES: Copper Silver Molybdenum Gold

MINERALS

SIGNIFICANT: Bornite Chalcopyrite Pyrite Tetrahedrite Chalcocite
Molybdenite
ASSOCIATED: Quartz Muscovite Magnetite
ALTERATION: Malachite Azurite Cuprite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive Disseminated Stockwork
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 91 x 1 Metres STRIKE/DIP: 090/45S TREND/PLUNGE:
COMMENTS: At the main adit, the four principal veins strike 090 degrees and dip 45 to 65 degrees east. Vein widths ranged up to 81 centimetres and have been traced along strike for generally less than 91 metres.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous
ISOTOPIC AGE: 83 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Muscovite
Coast Plutonic Complex

LITHOLOGY: Muscovite Granite
Biotite Granite
Hornblende Biotite Granite
Aplite Dike

HOSTROCK COMMENTS: Age date from Geological Survey of Canada Open File 611.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1982
SAMPLE TYPE: Grab
COMMODITY
Silver 194.7000 Grams per tonne
Copper 15.1600 Per cent
COMMENTS: Sample from main adit.
REFERENCE: Assessment Report 11619.

CAPSULE GEOLOGY

azurite staining. Sample PR90-19 also yielded greater than 1 per cent copper, 98.6 grams per tonne silver and 0.18 gram per tonne gold. This sample was taken from a pit exposing a small quartz-muscovite vein striking 273 degrees and dipping 80 to 85 degrees north. Bornite, chalcocite and chalcopyrite mineralization is closely associated with muscovite. Accessory magnetite was locally observed.

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DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. The Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented northwesterly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The McVicar occurrence is underlain by a bimodal sequence of pyroclastic andesite volcanics with lesser andesite volcaniclastics and rhyolite of the Gambier Group in fault contact, at depth, with granodiorite of the Coast Plutonic Complex. This package has been intruded by felsic, intermediate and mafic Garibaldi Group dykes. The occurrence is located north of the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley. A thick succession of andesite fine ash to lapilli ash tuff and feldspar crystalline andesite is intercalated with thin lenses of rhyolite, and underlies the main part of the McVicar zone. East of the zone, the volcanic succession is felsic in composition and dominated by rhyolite and dacite. The volcanic assemblage comprising the McVicar zone is a tilted sequence striking 160 degrees and dipping steeply to the west at 75 degrees. Lithologic contacts between the volcanic units are poorly exposed on surface. In drill core, a large percentage of the observed contacts are sheared, faulted or are gradational, characterized by facies changes in andesite. A regional foliation striking 350 degrees and dipping 85 degrees east is imposed on the volcanic rocks. Quartz veining is dominantly localized in fracture planes oriented parallel to foliation. Abundant shearing is also evident along foliation accompanied by intense sericitization.

The McVicar zone is a northwest trending zone of strongly altered volcanic rocks with numerous surface showings of sulphide mineralization that defines a 1200 by 400 metre area. The zone is structurally complex with numerous faults transecting the stratigraphy. Examination of slickensides indicate that both normal and reverse movement occurs on the faults, the dominant being reverse dip-slip with local strike-slip component. Garibaldi Group dykes are localized along fault zones.

Five alteration assemblages are recognized in the McVicar zone: (1) silicification, (2) sericitization, (3) hematization, (4) chloritization and (5) epidotization. Silicification is the most apparent and occurs as two types, stockwork and pervasive. Stockwork silicification varies from intense to weak, and occurs as irregular quartz veinlets that are oriented subparallel to foliation. The veinlets are 1 to 20 millimetres wide but are locally up to 20 centimetres. Individual zones of stockwork silicification varies from less than 1 up to 24 metres in width. The margins of these zones are either gradational, exhibiting a progressive increase in the percentage of veins towards the centre of the zone, or sharp, with contacts parallel to the foliation. Jasper is uncommon, but occurs locally as veinlets associated with the margins of quartz veins.

Pervasive silicification is often associated with stockwork silicification. The intensity of pervasive silicification varies from weak, characterized by discolouration of andesitic volcanics, to strong, where it obliterates primary textures in andesite tuffs. The margins of these altered zones may be gradational over 10 to 20 centimetres with progressive increases in the intensity of silicification towards the centre of the zone, or sharp, with contacts terminated parallel to foliation.

These two types of silicification are locally associated with distinct breccia zones up to 5 metres thick which strike northwest and dip west, parallel to the foliation of the McVicar zone.

Sericitization is the most common alteration but is less apparent than silicification. It is dominantly in the matrix of the volcanic rocks but within the McVicar zone it forms discrete intense zones varying in width from less than 0.2 metres up to 3.3 metres. Locally, zones of sericitization are associated with moderate to strong shearing.

Chloritization is weakly developed and is evident in the matrix of andesitic volcanics. Intensity varies from weak to strong.

Patchy to pervasive hematization is associated with silicification. Zones of hematization are gradational, showing a progressive decrease in intensity towards the margins of the zones.

Minor epidote alteration was noted in drill core as blebs in andesitic volcanics.

Extensive sulphide mineralization in the McVicar zone has been exposed in numerous trenches and adits. Most of these showings are named after the claims (Crown grants) upon which they are located and include the Whistler (Lot 6160), south and north Harding (Lot 6152),

CAPSULE GEOLOGY

Rainstorm (Lot 6153), Cabin Fraction (Lot 6158), Violet (Lot 6162) and Ruth. The volcanic rocks in the McVicar zone contain up to 10 per cent pyrite as disseminations or as wisps and bands aligned parallel to foliation or shearing.

Spectacular sphalerite, chalcopyrite and galena mineralization is particularly evident at the Whistler showing, where it occurs as northwest trending, steeply east dipping stringers, veins and pods that characteristically pinch and swell along strike. Stringers and veins may be localized in, or terminated by shears and are associated with intense pervasive and/or stockwork silicification. A zonation, from sphalerite margins to chalcopyrite cores, is locally observed in the veins and stringers. Surface sampling from this showing assayed up to 3.48 per cent copper, 10.2 per cent lead, 15.65 per cent zinc, 95.64 grams per tonne silver and 0.34 grams per tonne gold over a true width of 1.3 metres (Assessment Report 16494). Recent diamond drilling encountered mineralization beneath the Whistler showing and assayed 2.4 per cent copper, 1.86 per cent zinc, 1.94 per cent lead and 38 grams per tonne silver over a sample width of 0.3 metres (Assessment Report 16494).

Moderately deformed stringers and lenses of massive chalcopyrite strike approximately 320 degrees with vertical dips at the Rainstorm showing. The stringers and lenses form a continuous network of mineralization over the length of a 12 metre outcrop, up to 1 metre wide, that parallels a fault contact between the host rhyolite and andesite lapilli ash tuff.

Mineralization at the remainder of the showings generally comprises semi-massive to massive chalcopyrite and sphalerite with lesser amounts of galena. This mineralization occurs as northwest trending, subvertical stringers and veinlets, up to 20 centimetres wide (average 10 centimetres), associated with quartz veining in strongly silicified andesite volcanics. Chalcopyrite and lesser amounts of sphalerite are locally associated with north trending, subvertical shear zones up to 1 metre wide.

Recent diamond drilling has revealed that discontinuous, low grade sulphide mineralization is localized in quartz veining oriented parallel to foliation in the McVicar zone. A large percentage of sulphide mineralization in the zone occurs as stringers and disseminations associated with, and hosted by, stockwork silicification. However, spectacular sulphide mineralization occurs as lenses and stringers, aligned parallel to foliation, at the Whistler and Rainstorm showings. The McVicar zone mineralization is postulated to represent a low-grade volcanogenic sulphide system with remobilized sulphides in higher grade stringer zones.

Previous drilling (1928) has outlined indicated reserves of 119,737 tonnes of ore grading 2 per cent copper with minor amounts of lead, zinc and silver underlying the Rainstorm and north Harding showings (Assessment Report 16494; Northern Miner - April 30, 1964).

In 1999, Doublestar Resources Ltd. plans to acquire the property from Falconbridge Limited.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/31

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GNW007**

NATIONAL MINERAL INVENTORY:

NAME(S): **HIGH HOPES**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 48 32 N
LONGITUDE: 123 04 50 W
ELEVATION: 609 Metres

NORTHING: 5517386
EASTING: 494204

LOCATION ACCURACY: Within 1 KM

COMMENTS: Short adit along the Cheekye River, 5.5 kilometres east of its confluence with the Cheakamus River, 7.5 kilometres northeast from the village of Brackendale (Minister of Mines Annual Report 1963).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite Bornite
ASSOCIATED: Quartz Calcite
ALTERATION: Chlorite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal
DIMENSION:
COMMENTS: Fractures. STRIKE/DIP: 320/35E TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The High Hopes occurrence is underlain by foliated diorite of the Cenozoic-Mesozoic Coast Plutonic Complex. A short adit exposes a quartz-calcite vein mineralized with spotty concentrations of chalcopyrite, molybdenite, pyrite and minor bornite. The vein is hosted in fractures that strike 320 degrees and dip 35 degrees northeast. The quartz vein has a maximum width of 61 centimetres and has been exposed for 7.6 metres. The diorite host rock is also veined with chlorite which is found as inclusions in the vein.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/06

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW008**

NATIONAL MINERAL INVENTORY: 092G13 Au1

NAME(S): **CHALICE, SKOOKUM, RC,
BEACH PIT, S. EGMONT, EARL COVE,
WALLY, BACON, HD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:
LATITUDE: 49 45 33 N
LONGITUDE: 123 59 06 W
ELEVATION: 4 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Drillhole 1 in Beach Pit zone (Assessment Report 14736, Figure A1-1).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5512320
EASTING: 429056

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Marcasite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: 230 Metres
COMMENTS: Attitude of veins in beach exposures. STRIKE/DIP: 045/40W TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Granodiorite
Hornblende Biotite Quartz Diorite
Gabbro
Feldspar Porphyry Rhyodacite Dike
Diorite Dike
Andesitic Dike
Basaltic Dike

HOSTROCK COMMENTS: Plutonic rocks in the vicinity have been dated as Late Jurassic.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: PIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1966
SAMPLE TYPE: Bulk Sample
COMMODITY GRADE
Silver 14.0000 Grams per tonne
Gold 11.0000 Grams per tonne
Copper 0.0800 Per cent
COMMENTS: A 96-tonne bulk sample.
REFERENCE: Assessment Report 11129, page 16.

CAPSULE GEOLOGY

The Chalice prospect is exposed along the southeast side of Agamemnon Channel, 1.1 kilometres southwest of the northern tip of Sechelt Peninsula.

The earliest record of exploration in the Chalice prospect area was in 1913, when R. Durnsford Jr. drove the Stein tunnel (092GNW061). In 1937, work was recorded on the Cambrian Chieftain occurrence (092GNW011). Additional mineralization was discovered at the Skookum, along the shoreline of Agamemnon Channel. Other showings, some containing massive sulphides, are reported along the shores of Agamemnon Channel. In 1982, Chalice Mining Inc. staked the ground covering the Chalice prospect. Since that time, Chalice Mining Inc. has conducted prospecting, geochemical and geophysical surveys, geological mapping, trenching and 572 metres of diamond drilling in 21 holes.

CAPSULE GEOLOGY

The Chalice prospect is comprised of a zone of vein and stockwork, high grade gold mineralization traced discontinuously northeastward along the shore of Sechelt Peninsula for 230 metres. The zone is hosted in hornblende-biotite quartz diorite, within the Jurassic to Cretaceous Coast Plutonic Complex. Quartz diorite locally grades into gabbro, diorite and granodiorite. Northwest trending roof pendants are composed of metasediments and metavolcanics correlated with the Upper Triassic Karmutsen Formation of the Vancouver Group. The entire sequence of rocks are intruded by numerous feldspar porphyry rhyodacite, diorite and andesitic to basaltic dikes. Dike swarms are prominent in the area.

Several pits excavated in beach exposures reveal numerous discontinuous veins of quartz, marcasite and pyrite up to 0.5 metres wide in granodiorite and basaltic dikes. The veins strike 045 degrees and dip 40 to 90 degrees west.

A sample from one of the pits assayed 213 grams per tonne gold and 219 grams per tonne silver (Bulletin 39, page 39). A bulk sample of 96 tonnes shipped by Abacon Mineral Explorations Ltd. in 1966 averaged 11 grams per tonne gold, 14 grams per tonne silver and 0.08 per cent copper (Assessment Report 11129, page 16).

One hundred and fifty metres to the northeast, a 7 by 2 metre cliff exposure reveals a series of marcasite veinlets 4 to 6 centimetres wide cut by several basaltic dikes in granodiorite. The veins strike 055 degrees and dip 75 degrees west. A 20 metre wide stockwork of quartz and marcasite veinlets outcrops between these two exposures. The stockwork zone trends 110 degrees and dips 60 degrees east to 75 degrees west.

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DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW009**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCNAB CREEK SLATE** HOWE SOUND

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G11W

BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 32 54 N

LONGITUDE: 123 25 03 W

ELEVATION: 15 Metres

NORTHING: 5488498

EASTING: 469800

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry on the shoreline of Thornbrough Channel, 3.2 kilometres west along the coastline from the mouth of McNab Creek, 5.5 kilometres northeast of the pulp mill at Port Mellon (Minister of Mines Annual Report 1963).

COMMODITIES: Slate

Flagstone

Dimension Stone

Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Commodity is slate.

MINERALIZATION AGE: Lower Cretaceous

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Metamorphic

Industrial Min.

TYPE: R08 Flagstone

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Lower Cretaceous

Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Slate

Quartz Diorite

HOSTROCK COMMENTS:

Metasedimentary and metavolcanic rocks form a roof pendant in granitic rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

Plutonic Rocks

RELATIONSHIP: Regional

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

GRADE: Greenschist

CAPSULE GEOLOGY

The McNab Creek Slate quarry is underlain by Lower Cretaceous metavolcanic and metasedimentary rocks of the Gambier Group. These rocks form a roof pendant in Jurassic to Tertiary Coast Plutonic Complex quartz diorite.

Dark grey to black slate was quarried for use as flagstone, asphalt roofing granules and filler. The quarry was operated intermittently between 1947 and 1963 by Richmix Clays Ltd. of Vancouver. A total of 12,531 tonnes of slate was mined between 1955 and 1963.

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GSC MEM 158

GSC OF 611

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DATE CODED: 1985/07/24
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CODED BY: GSB
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW010**

NATIONAL MINERAL INVENTORY: 092G11 Cu2

NAME(S): **MULLIGAN, RAY CREEK, BRUCE,
RADIANT, CONTACT, CRANE,
MCKINNON**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:
LATITUDE: 49 41 18 N
LONGITUDE: 123 04 09 W
ELEVATION: 1040 Metres
LOCATION ACCURACY: Within 500M

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5503981
EASTING: 495011

COMMENTS: Trenches on the west slopes of Mount Mulligan, between "Little Ray Creek" and Ray Creek, 6.5 kilometres east from the town of Squamish (Assessment Report 16495).

COMMODITIES: Copper Zinc Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite
ASSOCIATED: Quartz Sericite
ALTERATION: Quartz Sericite Epidote
ALTERATION TYPE: Silicific'n Sericitic Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stockwork Shear
CLASSIFICATION: Volcanogenic Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 1432 x 0304 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Altered zone.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u> Lower Cretaceous Mesozoic-Cenozoic	<u>GROUP</u> Gambier	<u>FORMATION</u> Undefined Formation	<u>IGNEOUS/METAMORPHIC/OTHER</u> Coast Plutonic Complex
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LITHOLOGY: Andesite
Andesite Tuff
Intermediate Lapilli Ash Tuff
Rhyolite
Rhyolite Ash Tuff
Polymictic Fragmental Rock
Rhyolite Tuff
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)
TERRANE: Gambier	RELATIONSHIP: Plutonic Rocks
METAMORPHIC TYPE: Regional	GRADE: Greenschist

INVENTORY

ORE ZONE: SHEAR REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 9.9000 Grams per tonne
Copper 1.4500 Per cent
Zinc 2.0400 Per cent
COMMENTS: Best assays from several samples.
REFERENCE: Assessment Report 16495.

CAPSULE GEOLOGY

The Mulligan area occurs on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. The Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-

CAPSULE GEOLOGY

westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Mulligan occurrence is underlain by northwest trending andesitic to intermediate tuffs and fragmental rocks, and felsic flows and tuffs of the Gambier Group in contact with granodiorite of the Coast Plutonic Complex. Garibaldi Group mafic dykes intrude all units.

Ten volcanic units are mapped on the property and include a sequence of intercalated aphyric rhyolite, andesite tuff, polyolithic fragmental rock and intermediate lapilli ash tuff. The polyolithic fragmental unit occurs as a broad band across the central portion of the property. A second sequence comprises numerous intercalated felsic tuffs and minor argillite. These tuffs are all rhyolitic in composition but can be distinguished as aphyric, quartz crystalline, feldspar crystalline, quartz-feldspar crystalline and ash tuff units. Locally, flow banding and ash bands indicate a northwest strike.

The volcanic succession is a tilted sequence striking approximately 120 degrees with moderate to steep southwest dips that average 60 degrees. Graded bedding indicates an overturned sequence with stratigraphic tops to the north. A regional foliation striking approximately 154 degrees and dipping 78 degrees has been imposed on the volcanic rocks and is strongest in shear zones.

Numerous north to northwest trending subvertical shear zones are evident in three main areas. Zone widths vary from 2 to 5 metres. Faulting is prevalent and is related to the granodiorite intrusive contact. Shearing and faulting of the granodiorite and volcanics at the western margin of the property has created a complex structural relationship between the volcanic units.

Four alteration facies are recognized: (1) quartz-sericite; (2) silicification; (3) sericitization; and (4) epidotization. Quartz-sericite alteration is associated with the north trending shear zones. These zones are up to 5 metres wide and the intensity of alteration increases towards the centre of the shear producing a quartz-sericite schist. Stockwork silicification is evident in intermediate lapilli ash tuff and varies from moderate to strong in intensity. Individual quartz veins are up to 4 centimetres in width. Moderately intense sericitization of the polyolithic fragmental unit is restricted to the matrix and rims of fragments. Epidote occurs as blebs in andesite tuff.

The mineralization in the Mulligan occurrence area occurs in an altered zone 304 metres wide and 1432 metres long. The area is roughly parallel to the northwest contact of the Coast granodiorite contact. Two types of mineralization are evident on the property. The first is pyrite mineralization associated with north trending, subvertical shears. Discrete pods to lenses, less than 50 centimetres wide, occur in a quartz-sericite schistose gangue locally found within the shears. Disseminated pyrite mineralization increases in intensity towards the centre of the shears and is discontinuous along strike. The highest assays associated with this type of mineralization are 1.45 per cent copper, 0.05 per cent zinc, 0.01 per cent lead and 9.9 grams per tonne silver (Assessment Report 16495).

Historic stripping has exposed the second type of mineralization which consists of disseminated chalcopyrite and sphalerite associated with very intense stockwork silicification in intermediate lapilli ash tuff. The best assay from an isolated exposure is 2.04 per cent zinc, 0.22 per cent copper, 0.08 per cent lead and 3.5 grams per tonne silver (Assessment Report 16495).

Past work included numerous trenches, three short adits and three shallow vertical shafts.

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 99
REPORT: RGEN0100

BIBLIOGRAPHY

Falconbridge File

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REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

High grade copper ore was mined periodically from an open pit and underground workings at the Cambrian Chieftain occurrence, located 5.5 kilometres northeast of the head of Pender Harbour, 2.5 kilometres southeast of Sakinaw Lake on Sechelt Peninsula.

The earliest record of exploration in the Chalice prospect area was in 1913, when R. Durnsford Jr. drove the Stein tunnel (092GNW061). In 1937, two exploration adits were driven on the Cambrian Chieftain occurrence by Sheep Creek Gold Mines Ltd. In 1940, Alaska-Pacific Mining Co. Ltd. optioned the Cambrian Chieftain and advanced an adit 64 metres, 150 metres southwest of the Upper Sheep Creek adit. Four diamond-drill holes totalling 367 metres were also completed. Caron Mining Ltd. optioned the property in 1949 and continued development of the Sheep Creek adits. Ore was mined and shipped to a Tacoma smelter from the underground workings in 1949 and 1950. Silurian Chieftain Mining Co. Ltd. optioned the property in 1953 and a zinc showing was trenched. In 1961, Colonial Mines optioned the property and continued open pit mining ore from the Sheep Creek underground workings. Ore shipments were made to Britannia (092GNW003) and to a Tacoma smelter. A soil geochemical survey was carried out by Cone Mountain Mines Ltd. in 1972. Further exploration work was contracted to Weymark Engineering by MHB Resources in 1980. Sierra Nevada Gold Ltd. completed a magnetic geophysical survey on the Silver Lee claim in 1981. The Cambrian Chieftain claim group lapsed and the Ham 1-6 claims were staked on the ground covering the Upper and Lower Sheep Creek adits and open pit. B. Sauer staked the Cambrian Chieftain II in 1988. The Cu 1 and 2 claims were added in 1989 and 1990 respectively.

The former Cambrian Chieftain mine is hosted at the north end of a roof pendant of intermediate to mafic flows and tuffs, limestone, dolomite and chert of the Upper Triassic Karmutsen Formation, Vancouver Group. The roof pendant is surrounded by diorite and quartz diorite along the southwestern margin of the Jurassic to Cretaceous Coast Plutonic Complex. The volcanics are variably metamorphosed to greenstone and metadiorite while the calcareous sediments are locally altered to skarn. Bedding strikes north and dips vertical to steeply to the east. These units are cut by numerous narrow andesitic (greenstone) dikes striking northwest and dipping vertical to steeply southwest.

A zone of discontinuous garnet and epidote-rich skarn alteration, possibly related to shearing, strikes north-northeast for 550 metres and dips 65 to 85 degrees east, within thinly bedded limestone, chert and massive greenstone. The zone varies up to 30 metres in width. Chalcopyrite, pyrite, magnetite, and sphalerite occur along fractures and as disseminations in the actinolite-chlorite-garnet-epidote skarn. Copper mineralization is most intense in the northern 150 metres of the zone, where chalcopyrite forms massive bands and pods up to 0.9 metre thick accompanied by minor pyrite, sphalerite and magnetite. Two chip samples of this mineralization assayed as follows (Minister of Mines Annual Report 1950, page 172, Samples 13 and 22):

Sample	Width (m)	Gold (g/t)	Silver (g/t)	Copper (%)	Zinc (%)
13	1.52	Trace	106	9.4	0.5
22	0.70	0.69	445.6	30.6	<0.3

Two samples of skarn were taken from an old trench in 1991. Sample JZ-9101 yielded 17.41 per cent zinc, 0.33 per cent copper and 6.9 grams per tonne silver (Assessment Report 22195). The rock sample contained 3 to 5 per cent magnetite, 25 to 30 per cent sphalerite, 3 to 5 per cent pyrite and 2 to 3 per cent chalcopyrite in a fine grained skarn matrix of actinolite, chlorite, garnet and carbonate. Sample JZ-9102 yielded 4.00 per cent zinc, 0.05 per cent copper and 3.5 grams per tonne silver from a similar mineralogy.

An area of greater zinc mineralization occurs near the south end of the zone, 420 metres south-southwest of the main workings. Massive veins of pyrite, pyrrhotite, sphalerite, chalcopyrite magnetite and hematite are developed in a light coloured, epidote-bearing host rock. A chip sample taken across a width of 4.6 metres assayed 5.8 grams per tonne silver, 0.19 per cent copper and 13.5 per cent zinc (Assessment Report 3757, Map 2, Sample 2).

A total of 1421 tonnes were mined intermittently between 1949 and 1963 by various operators. A shipment of 241 tonnes in 1949 averaged 1.93 grams per tonne gold, 261.9 grams per tonne silver and 13.96 per cent copper (Minister of Mines Annual Report 1949, page 217).

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 102
REPORT: RGEN0100

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Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

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REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

The vein pinches and swells to a width of 0.3 metre. Pyrite, molybdenite and chalcopyrite occur along fractures and as disseminations in the vein.

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Columbia

DATE CODED: 1986/05/13
DATE REVISED: 1997/07/30

CODED BY: AFW
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW013**

NATIONAL MINERAL INVENTORY: 092G14 Au1

NAME(S): **ASHLU, ASHLOO, GOLDEN COIN,
GOLDEN KING, ASH, HAWK,
ASHLUCK, AU**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:
LATITUDE: 49 56 42 N
LONGITUDE: 123 24 45 W
ELEVATION: 488 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of portal where Roaring Creek enters Ashlu Creek (Property visit by P. Wilton, District Geologist in 1988).

Underground
MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5532597
EASTING: 470404

COMMODITIES: Gold Silver Copper Zinc Tungsten

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite Gold Scheelite
Sphalerite Tellurobismuthite Calaverite Frobergite Hessite
Altaite
ASSOCIATED: Quartz Ankerite Siderite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins I02 Intrusion-related Au pyrrhotite veins
SHAPE: Tabular
DIMENSION: 90 x 3 Metres STRIKE/DIP: 010/25 TREND/PLUNGE:
COMMENTS: Dimensions are for maximum width of vein.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Jurassic-Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Biotite Granodiorite
Quartz Diorite
Biotite Amphibole Hornfels
Phyllonite

HOSTROCK COMMENTS: Cloudburst pluton, in which vein occurs, is Jurassic in age Geological Survey of Canada Paper 90-1F, pages 95-107).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact
COMMENTS: Hornfelsed rock is a narrow Gambier Group pendant.

Gambier
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: GRADE: Hornfels

INVENTORY

ORE ZONE: ASHLOO REPORT ON: Y
CATEGORY: Combined YEAR: 1981
QUANTITY: 89350 Tonnes
COMMODITY GRADE
Silver 12.3400 Grams per tonne
Gold 8.5700 Grams per tonne
COMMENTS: Property File - Proven and possible reserves.
REFERENCE: MDAP Stage 1 Report, 1981.

CAPSULE GEOLOGY

The portal of the former Ashlu mine is located at the confluence of Roaring Creek with Ashlu Creek, 45 kilometres northwest of Squamish, British Columbia.

The Ashlu quartz veins were discovered in 1923 by F. Pykett and associates, who originally called the claims the Golden King group. Over 30 metres of underground development were done in 1924. By 1930, the claims were known as the Gold Coin group, owned by the Pykett estate, C. Anderson and R.V. Carson. The Ashlu Gold Mining Syndicate set up a 23 tonne per day mill at the mine site which operated intermittently from May 1937 until October 1939 when the ore was depleted. Since 1975, about 1000 metres of diamond drilling have

CAPSULE GEOLOGY

been completed on the deposit. Osprey Mining and Explorations Limited reportedly installed a 91 tonne per day mill in 1979, but except for 36 tonnes milled in 1984 no other production was recorded. Osprey Mining and Exploration leased the property from 1979 to 1985 and carried out an extensive development program. In 1985, Tenquille Resources Ltd. acquired the property and in 1987 retained Cooke Geological Consultants to carry out underground sampling. In 1988, Valentine Gold Corp. took an option on the property. As of 1994, the former Ashlu mine is staked as the Au claim and owned by L. Demczuk. The surrounding area was restaked as the Ashlu 1 to 5 claims by 421424 B.C. Ltd. and Homegold Resources Ltd was retained to prospect and geologically map the claims.

The mine workings consist of a 120 metre drift adit driven southerly from Ashlu Creek, raises and stopes to the surface, 2 drifts some 30 and 60 metres below the adit level, a 30 degree winze connecting the drifts and crosscutting for a total of over 300 metres of underground development.

The Ashlu mine area is underlain by extensive areas of quartz diorite, granodiorite and diorite bodies of the Jurassic Cloudburst pluton of the Jurassic to Cretaceous Coast Plutonic Complex. This pluton has intruded into and along the margins of Lower Cretaceous Gambier Group greenstone forming the eastern boundary of a major northwest trending pendant, east of the mine site. Regionally, these pendants are composed of andesite to rhyodacite flows and pyroclastics, greenstone, argillite and minor zones of conglomerate, limestone and schist. These pendant rocks may be metamorphosed up to amphibolite grade. A major north-west trending shear zone of Cretaceous age, the Ashlu Creek shear zone, in part defines the contact of the pluton and the pendant. Forming the western contact of the pendant is the Cretaceous Squamish pluton.

All mining was done along the plane of the vein, which dips 25 to 30 degrees west, striking approximately 010 degrees. At the lowest level the vein steepens to 35 degrees. The quartz vein is situated at the hangingwall of an elongated roof pendant consisting of biotite and amphibole hornfels which strikes 015 degrees and is up to 4.6 metres in width. The hangingwall, in contact with the quartz vein, and the footwall, in contact with the pendant, are composed of biotite granodiorite. Previous to 1994, many reports stated a complex, fine grained, dark, mafic-rich rock intimately associated with the quartz was a dike. Petrographic analysis indicates it is a phyllonite produced by cataclastic deformation along a fault (Assessment Report 4036). The quartz vein varies in width from 0.2 to 3 metres. Most of the underground workings follow this vein over a strike length of 90 metres and downdip for 85 metres.

The quartz vein consists of massive to cleaved white quartz with pods, streaks and disseminations of pyrite and pyrrhotite, especially near the vein walls. Minor amounts of chalcopyrite, scheelite, sphalerite, ankerite and siderite also occur in the vein. Gold values are closely associated with the sulphide minerals.

Petrographic studies show that the gold does occur in native form of very fine size (0.01 - 0.04 millimetre) but mainly it is associated with the tellurides: tellurobismuthite, calaverite, frobergite, hessite and altaite. The tellurides occur as small grains in euhedral pyrite adjacent to the ore zone. In 1994, several additional distinct gold associations were made. Gold occurs as: 1) large inclusions (up to 0.1 millimetre) in pyrite, 2) blebs less than 10 microns in chalcopyrite, 3) native gold up to 40 microns along fractures in quartz, 4) native gold up to 50 microns along pyrite-quartz grain boundaries and 5) native gold up to 35 microns along fractures in pyrite (Assessment Report 24036).

Proven and possible reserves are 89,350 tonnes grading 8.57 grams per tonne gold and 12.34 grams per tonne silver (MDAP Stage 1 Report, 1981).

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V STOCKWATCH June 12, Oct.15, 1987
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
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Columbia
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GNW014**

NATIONAL MINERAL INVENTORY:

NAME(S): **BELLE W.C., BELLE - MAGGIE,
 IRISH MOLLY, ROSE, LUCKY JACK,
 JENNY, BELL, ETHEL**

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G11E
 BC MAP:
 LATITUDE: 49 37 30 N
 LONGITUDE: 123 00 51 W
 ELEVATION: 914 Metres
 LOCATION ACCURACY: Within 500M

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5496938
 EASTING: 498977

COMMENTS: Mineralized outcrop near the centre of the W.C. 1-4 claims, south of the Indian River, 1.5 kilometres north of Delta Lake, 13 kilometres southeast from the town of Squamish (Assessment Report 11657).

COMMODITIES: Copper Silver Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena
 ASSOCIATED: Quartz Limonite Sericite
 ALTERATION: Biotite Cordierite Chlorite Sericite Quartz
 Epidote
 ALTERATION TYPE: Silicific'n Biotite Chloritic Sericitic
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratabound Vein Stockwork
 CLASSIFICATION: Volcanogenic Epigenetic Hydrothermal
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Dacite
 Andesite
 Rhyolite
 Lapilli Tuff
 Crystal Tuff
 Rhyolite Lapilli Tuff
 Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Contact Regional
 PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 PLUTONIC ROCKS RELATIONSHIP:
 GRADE: Hornfels
 Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1983
 SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	102.0000	Grams per tonne
Copper	4.0000	Per cent
Lead	1.0000	Per cent
Zinc	3.0000	Per cent

 COMMENTS: Upper limit of assays from various samples.
 REFERENCE: Assessment Report 11657.

CAPSULE GEOLOGY

The Belle area occurs on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-

CAPSULE GEOLOGY

westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Belle occurrence area is underlain by Gambier Group rocks consisting of a sequence of andesitic to dacitic crystal and lapilli tuffs and flows, and cherty rhyolitic tuffs, lapilli tuffs and flows surrounded by quartz diorite of the Coast Plutonic Complex. The prospect is on, or close to, the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley. The stratified rocks strike northwest and dip moderately southwest. Pliocene to Recent Garibaldi Group basaltic dykes pervade the area. All rock units have undergone some silicification and biotite is developed throughout. A common alteration mineral assemblage includes chlorite-epidote-quartz-sericite; pyrite is common. Cordierite-bearing biotite hornfels is related to the quartz diorite intrusive. Faulting and fracturing is intensely developed throughout the Gambier Group rocks.

Three styles of mineralization are evident on the property: (1) discontinuous layers up to 2 metres thick of coarsely crystalline to mainly disseminated pyrite and chalcopyrite which occurs at the contact between felsic metavolcanic rocks and basaltic dykes. The gangue mineralogy comprises quartz, limonite and sericite with grades up to 4 per cent copper and 102 grams per tonne silver (Assessment Report 11657); (2) veins and layers of coarsely crystalline quartz-chalcopyrite, rarely more than 0.5 metres wide, with minor pyrite parallel to bedding within the felsic volcanic rocks; and (3) disseminated sphalerite and galena with traces of chalcopyrite and pyrite in cherty to sericitized felsic breccias. Zinc and lead grade up to 3 per cent and 1 per cent respectively, with minor copper and silver values (Assessment Report 11657).

Past work included two short adits 152 metres apart and numerous open cuts on several contiguous, cancelled Crown grants that extended over a strike length of 1800 metres near and along the Indian River (see claim map in Property File).

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/29

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW015**

NATIONAL MINERAL INVENTORY:

NAME(S): **PRINCESS ROYAL AND HAZEL**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 13 N
LONGITUDE: 123 22 50 W
ELEVATION: 106 Metres

NORTHING: 5490924
EASTING: 472484

LOCATION ACCURACY: Within 500M

COMMENTS: Quartz vein outcrop 350 metres east of McNab Creek, 750 metres north of its mouth at the coastline, 9.5 kilometres northeast of the pulp mill at Port Mellon (Minister of Mines Annual Report 1928).

COMMODITIES: Zinc

MINERALS

SIGNIFICANT: Sphalerite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Princess Royal and Hazel occurrence is underlain by granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex. A quartz vein 15 to 20 centimetres wide occurs in the granodiorite and is mineralized with sphalerite and pyrite. The vein is intermittently exposed over a length of 15 metres.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW016**

NATIONAL MINERAL INVENTORY:

NAME(S): **CROFTON**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 25 N
LONGITUDE: 123 22 49 W
ELEVATION: 152 Metres

NORTHING: 5491294
EASTING: 472506

LOCATION ACCURACY: Within 1 KM

COMMENTS: Shaft and open cuts, 500 metres east of McNab Creek, 1.25 kilometres north of its mouth at the coastline, 9.5 kilometres northeast from the pulp mill at Port Mellon (Minister of Mines Annual Report 1924).

COMMODITIES: Copper Zinc Lead Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Meta Volcanic Rock
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Gambier Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: OUTCROP REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1924
SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	116.5000	Grams per tonne
Copper	7.8000	Per cent
Lead	5.0000	Per cent
Zinc	11.0000	Per cent

COMMENTS: Sample from outcrop near a shaft.
REFERENCE: Minister of Mines Annual Report 1924, page B241.

CAPSULE GEOLOGY

The Crofton occurrence is underlain by granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex which contains a small pendant of Lower Cretaceous Gambier Group metavolcanic rocks. Mineralization occurs at the sheared, well-defined northwest trending contact between the pendant and intrusive rocks. Pyrite, chalcopyrite, sphalerite and galena occurs as irregular lenses filling fissures in the sheared volcanic rocks, and as disseminations in the volcanics. A grab sample taken from an outcrop near a shaft assayed 7.8 per cent copper, 11 per cent zinc, 5 per cent lead and 116.5 grams per tonne silver (Minister of Mines Annual Report 1924). Past work included a shallow shaft and open cuts.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 112
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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

trending structures. Garnet and epidote are the major skarn minerals. Contained within the skarn are lenticular, massive bodies of magnetite and pyrrhotite with minor chalcopyrite, pyrite and sphalerite. Pyrite, magnetite, pyrrhotite, chalcopyrite, sphalerite and galena are also sporadically disseminated in the skarn zones and silicified volcanics. Disseminations of chalcopyrite and molybdenite occur in quartz veins and stockworks in the vicinity of the skarn zones.

A series of five adits over a vertical elevation of 64 metres have been driven to explore the mineralization. A sample taken across 1.2 metres, from the face of an adit, assayed trace gold, 27.43 grams per tonne silver, 1.0 per cent copper and 19.3 per cent iron (Minister of Mines Annual Report 1917, page 283).

The Copper Group of claims were staked in the late 1890's. During the period of 1917 to 1922, a large amount of work was done to develop the showings. The property then remained idle until 1972 and 1973 when some surface mapping and diamond drilling was done. The results of that work are not published and there are no further reports of activity on the claims.

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- GSC OF 611
- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/01/05

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW018**

NATIONAL MINERAL INVENTORY: 092G11 Cu3

NAME(S): **HORSESHOE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 36 23 N
LONGITUDE: 123 16 24 W
ELEVATION: 426 Metres

NORTHING: 5494905
EASTING: 480252

LOCATION ACCURACY: Within 1 KM

COMMENTS: Mineralized outcrop 100 metres north of Ellesmere Creek, 1.25 kilometres from the shoreline of Howe Sound, 7 kilometres south from the pulp mill at Woodfibre (Minister of Mines Annual Report 1919).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Schist
Argillite
Micaceous Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks Gambier

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Horseshoe occurrence is underlain by Cenozoic-Mesozoic Coast Plutonic Complex quartz diorite which contains a belt of schists and argillite of the Lower Cretaceous Gambier Group. Mineralization consisting of pyrite, pyrrhotite and apparently chalcopyrite occurs in quartz lenses at the contact between quartz diorite and gossanous micaceous schist.

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW019**

NATIONAL MINERAL INVENTORY:

NAME(S): **RED JACKET**, BLUE JACKET

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 46 40 N
LONGITUDE: 123 52 08 W
ELEVATION: 1250 Metres

NORTHING: 5514286
EASTING: 437443

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on Red Jacket shear (Assessment Report 12450).

COMMODITIES: Copper Molybdenum Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Pyrrhotite Molybdenite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Epigenetic Hydrothermal
DIMENSION: 0350 x 0180 Metres
COMMENTS: Zone trends northeast, dips steeply.

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Volcanic
Meta Sediment/Sedimentary
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier Plutonic Rocks
COMMENTS: Hosted in roof pendant within southern Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SHEAR

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1917

COMMODITY

Silver

GRADE

21.0000

Grams per tonne

Copper

0.5000

Per cent

COMMENTS: Across 1.8 metres.

REFERENCE: Minister of Mines Annual Report 1917, page 284.

CAPSULE GEOLOGY

A gossanous zone of copper-molybdenum mineralization is exposed in the headwaters of an unnamed creek, 2.5 kilometres southwest of the peak of Mount Louie, 3.8 kilometres east-southeast of Killam Bay.

The Red Jacket showing is hosted in a roof pendant of metavolcanics and metasediments of the Lower Cretaceous Gambier Group engulfed in diorite of Cretaceous age, within the Jurassic to Tertiary Coast Plutonic Complex

A steeply dipping shear zone strikes northeast for 350 metres and varies up to 180 metres in width. The zone is mineralized with chalcopyrite, pyrite and pyrrhotite with minor molybdenite occurring as disseminations and as fracture-fillings paralleling the foliation of the host rock. A chip sample across 1.8 metres assayed trace of gold, 21 grams per tonne silver and 0.5 per cent copper (Minister of Mines Annual Report 1917, p. 284).

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BIBLIOGRAPHY

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/08

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW020**

NATIONAL MINERAL INVENTORY:

NAME(S): **ANVIL ISLAND**

STATUS: Past Producer
 REGIONS: British Columbia
 NTS MAP: 092G11W
 BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 30 52 N
 LONGITUDE: 123 18 19 W
 ELEVATION: 30 Metres

NORTHING: 5484691
 EASTING: 477902

LOCATION ACCURACY: Within 500M

COMMENTS: Old quarry-type operation at the extreme south end of Anvil Island in Howe Sound, 32 kilometres north from the city of Vancouver (Minister of Mines Annual Report 1906).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
 MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
 CLASSIFICATION: Residual Industrial Min.
 TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Unnamed/Unknown Formation	
Lower Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Bedrock is Gambier Group volcano-sedimentary rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier Plutonic Rocks
 PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Anvil Island is underlain by Lower Cretaceous Gambier Group volcano-sedimentary rocks. At the Anvil Island occurrence at the extreme south end of the island, there are extensive deposits of Recent stratified glacial clay, probably related to the Puyallup Interglacial deposits described on Vancouver Island. Two deposits have been historically worked. The clay bank has an area of 36 hectares and a thickness of approximately 30 metres. The clay in these deposits is somewhat sandy and yellowish to bluish-grey in colour and in most places contains fairly abundant pebbles. A sample from an old operation (Columbia Clay Company) is described from Bulletin 30 as follows:

Clay: Upper yellowish-grey
 Workability: Good plasticity
 Drying: Fairly good, slight cracking at 80 degrees Celsius
 Firing characteristics:

Cone	Shrinkage (per cent)	Absorption (per cent)	Remarks
010	0.35	16.74	Light red, fairly hard.
03	3.10	7.76	Good red, very hard.
1	Fused.		

Analytical results of the clay in 1906 were: 58.6 per cent silica, 26.7 per cent alumina, 7.5 per cent iron oxide, 4.0 per cent lime, 3.0 per cent loss by ignition, trace magnesia and a fusion point of 1093 degrees Celsius (Minister of Mines Annual Report 1906).

Production of clay for use as common brick from the two operations (Columbia Clay Company and Anvil Island Brick Company, Ltd.) dates from 1897 up to late 1912 but no production figures are available.

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RUN DATE: 26-Jun-2003
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REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/08

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW021**

NATIONAL MINERAL INVENTORY:

NAME(S): **GROUP A**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 57 N
LONGITUDE: 123 17 55 W
ELEVATION: 15 Metres

NORTHING: 5492256
EASTING: 478415

LOCATION ACCURACY: Within 500M

COMMENTS: Open cuts close to the shoreline of Howe Sound on the south slopes of Mount Ellesmere, 1.25 kilometres east of Potlatch Creek, 10 kilometres south from the pulp mill at Woodfibre (Assessment Report 1214).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Volcanic Rock
Meta Sediment/Sedimentary Rock
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Greenschist

CAPSULE GEOLOGY

The Group A occurrence is underlain by quartz diorite of the Cenozoic-Mesozoic Coast Plutonic Complex containing a small pendant of metavolcanic and metasedimentary rocks of the Lower Cretaceous Gambier Group. A molybdenite-bearing, ribboned quartz vein varying from 45 centimetres to 1.8 metres wide, is exposed 15 metres above the shoreline of Howe Sound in Gambier Group rocks. The vein has been traced for 274 metres along a northwest strike where it eventually pinches out. The quartz diorite intrusive rocks in the vicinity are fractured and cut by numerous quartz veins containing chalcopyrite and molybdenite.

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW022**

NATIONAL MINERAL INVENTORY:

NAME(S): **VENUS**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 32 N
LONGITUDE: 123 12 56 W
ELEVATION: 122 Metres

NORTHING: 5498875
EASTING: 484437

LOCATION ACCURACY: Within 500M

COMMENTS: Trenches and pits 250 metres southwest of Murrin Provincial Park,
between Highway 99 and the coastline, 2 kilometres north from the
village of Britannia Beach (GSC Open File 611).

COMMODITIES: Copper

Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Epigenetic Hydrothermal Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE Mesozoic-Cenozoic

GROUP _____

FORMATION _____

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Granodiorite
Quartz Porphyry

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Venus occurrence, located just north of the village of
Britannia Beach, is underlain by granodiorite of the Cenozoic-
Mesozoic Coast Plutonic Complex. Trenches expose chalcopyrite and
molybdenite fracture-fillings in quartz porphyry.

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW023**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHEAKAMUS BRIDGE, TERU**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 55 05 N
LONGITUDE: 123 09 44 W
ELEVATION: 427 Metres

NORTHING: 5529532
EASTING: 488354

LOCATION ACCURACY: Within 500M

COMMENTS: On the east side of Cheakamus River about 17 kilometres north of Brackendale (Prospectus, Challenger Exploration Limited). Another zone is reported 600 metres to the west.

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Diorite
Amphibolite
Schist

HOSTROCK COMMENTS: Showing occurs in the Jurassic Cloudburst pluton (Geological Survey of Canada Paper 90-1F, pp. 95-107).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1972

COMMODITY	GRADE	
Silver	10.2900	Grams per tonne
Copper	1.0200	Per cent

REFERENCE: Prospectus, Challenger Exploration Limited-June 15, 1972.

CAPSULE GEOLOGY

The area is underlain by quartz diorite to granodiorite of the Jurassic Cloudburst pluton of the Coast Plutonic Complex. The area to the west is overlain by basalt to rhyodacite flows and pyroclastics of the Tertiary Garibaldi Group. Also mapped in the area are pendants consisting of volcanics, sediments and greenstone of the Lower Cretaceous Gambier Group.

The main rock types in the Cheakamus Bridge occurrence area are porphyritic quartz diorite and hornblende diorite or amphibolite, or a migmatite complex. Andesitic to rhyodacitic intrusions are present, as are several near vertical lamprophyre and felsic dykes. The marginal phase zones have been strongly sheared and in places the rocks have schistose to gneissic textures.

Several sulphide mineral zones have been exposed which generally occur near the contact between the more siliceous and the mafic rock formations. The main sulphide zone occurs as a light grey to buff sericitic schistose phase containing pyrite, chalcopyrite and other metallic minerals. One sample assayed 1.02 per cent copper, 10.29 grams per tonne silver and a trace of gold (Prospectus - Challenger Exploration Ltd., 1973).

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 123
REPORT: RGEN0100

BIBLIOGRAPHY

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/08

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW024**

NATIONAL MINERAL INVENTORY:

NAME(S): **WATERSHED, FURRY CREEK**

MINING DIVISION: Vancouver

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092G11E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 56 N
 LONGITUDE: 123 04 43 W
 ELEVATION: 980 Metres

NORTHING: 5492185
 EASTING: 494318

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of mineralized area at the headwaters of Furry and Clipper creeks, 3 kilometres west-southwest of Loch Lomond, 14 kilometres south from the town of Squamish (Assessment Report 16756).

COMMODITIES: Copper Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite
 ASSOCIATED: Quartz
 ALTERATION: Silica Sericite Chlorite
 ALTERATION TYPE: Silicific'n Sericitic Chloritic
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein Disseminated
 CLASSIFICATION: Volcanogenic Epigenetic Hydrothermal
 TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Dacite
 Rhyolite
 Dacite Flow
 Dacite Tuff Breccia
 Dacite Ash Tuff
 Dacite Lapilli Tuff
 Rhyolite Ash Tuff
 Andesite
 Chert
 Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional

Plutonic Rocks
 RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1987
SAMPLE TYPE: Grab	
<u>COMMODITY</u>	<u>GRADE</u>
Copper	1.1000 Per cent
Zinc	1.9000 Per cent

COMMENTS: Mineralized cherty ash beds.
 REFERENCE: Assessment Report 16756.

CAPSULE GEOLOGY

The Britannia district is underlain by a roof pendant of mid-Mesozoic volcanic and sedimentary rocks, within the Cenozoic-Mesozoic Coast Plutonic Complex. A broad, steeply south dipping zone of complex shear deformation and metamorphism, the Britannia shear zone, crosses the pendant in a northwest direction. A narrow zone of foliated rocks, the Indian River shear zone, is subparallel to the Britannia shear zone and transects the northeast part of the Britannia pendant. The deformed rocks are cut by dacite dykes and several major sets of faults. The Britannia roof pendant is one of many northwest trending bodies within and in part metamorphosed by the Coast Plutonic Complex. The pendant is comprised of fresh to weakly metamorphosed rocks with sharp contacts against plutonic

CAPSULE GEOLOGY

rocks, and belongs to the Lower Cretaceous Gambier Group. The Coast plutonic rocks consist of older, commonly foliated bodies ranging from diorite to granodiorite and younger quartz diorite to quartz monzonite intrusions (Squamish pluton). The plutonic rocks have produced contact metamorphic aureoles up to a hundred metres wide in the Britannia pendant.

The Watershed occurrence area straddles the Furry and Clipper creek valleys and is underlain by a complicated interbedded succession of northwest trending andesitic to dacitic pyroclastic rocks of the Gambier Group which dip from 30 to 80 degrees south. The volcanic units are typically strongly sericitized and chloritized resulting in a well developed schistosity. Diamond-drill holes intersected a complex succession of intercalated dacitic pyroclastics and rhyolite to dacite flows. The stratigraphy is interpreted to be a felsic vent area, based on the observed thickening of the massive lower dacite flow/dome, a quartz feldspar porphyritic unit. The stratigraphy encountered in drill holes comprise andesite, an upper dacite flow, dacite tuff breccia, dacite ash and lapilli tuffs, a lower dacite flow (quartz feldspar porphyry) and lower dacite ash tuffs. Two zinc-rich siliceous exhalative horizons occur in the dacite ash tuffs above the lower dacite flow where values up to 1.9 per cent zinc have been obtained (Assessment Report 16756).

The area 400 metres east of the Watershed occurrence is underlain by andesite to dacite volcanics with minor intercalations of argillite and chert. The lowermost unit exposed in the valley floor is an andesitic to dacitic polymictic lapilli tuff which contains flame-like clots. Sulphide fragments occur within this unit. Stratigraphically above this is a more competent felsic unit of aphyric to quartz feldspar phyric rock and is thought to be the stratigraphic equivalent of the Watershed lower dacite flow. This equivalent frequently contains disseminated chalcopryrite, pyrite and sphalerite mineralization. A number of showings of massive pyrite and massive chalcopryrite stringers occur with extensive chlorite and sericite development. Pyrite veins up to 1 metre wide are locally evident. Massive chalcopryrite stringers up to 5 centimetres wide are accompanied by strong chlorite alteration. A complex succession of lapilli tuffs and fine-grained dacitic ashes overly this unit. A coarse tuff breccia unit is situated above these lapilli tuffs/ashes and forms the immediate hangingwall unit to the mineralized rocks. The uppermost unit in this area is a massive, homogeneous dacitic flow.

A further 400 metres east is a package of rocks which is interpreted to be stratigraphically below the previously discussed succession. The lowest unit is an andesite which has been shattered into fragments and flooded with silica. The andesitic fragments contain 1 to 5 per cent disseminated pyrite, and in some specimens, amygdules were recognized. The matrix silica content ranges from 5 to 50 per cent. Structurally (and presumably stratigraphically) above this unit, a sequence of interbedded cherty argillites, rhyolite ashes and andesite to dacite lapilli tuffs, crystal tuffs and ashes occur. Values of up to 1.1 per cent copper and 1.9 per cent zinc were obtained from cherty ash beds which contain 3 to 4 per cent disseminated sulphides comprised of chalcopryrite and sphalerite. Structurally, this area forms an anticline-syncline pair. A moderate to intense foliation is developed.

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- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
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REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW025**

NATIONAL MINERAL INVENTORY: 092G11 Cu7

NAME(S): **GAMBIER ISLAND**, GAMBIER ISLAND COPPER, MB,
DAYBREAK, COPPER BAY, COPPER COVE,
GAMBIER CREEK, GAMBIER LAKE

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:
LATITUDE: 49 30 52 N
LONGITUDE: 123 22 09 W
ELEVATION: 100 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of mineralized zone along Gambier Creek on the north end of Gambier Island in Howe Sound, 28 kilometres north from the city of Vancouver (Property File - Report by Acres Consulting).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5484712
EASTING: 473277

COMMODITIES: Copper Molybdenum Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Sphalerite Galena
Bornite
COMMENTS: Rare bornite.
ASSOCIATED: Quartz
ALTERATION: Sericite Biotite Chlorite Epidote
ALTERATION TYPE: Sericitic Propylitic Potassic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated Vein
CLASSIFICATION: Porphyry Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au
SHAPE: Irregular
MODIFIER: Faulted
DIMENSION: 1200 x 200 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Mineralized zone.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Porphyry
Andesite
Andesite Breccia
Volcanic Wacke
Volcanic Breccia
Argillite
Diorite
Granite
Hornfels
Dacite Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
Plutonic Rocks
RELATIONSHIP:
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
GRADE: Greenschist

INVENTORY

ORE ZONE: GAMBIER ISLAND REPORT ON: Y
CATEGORY: Measured YEAR: 1981
QUANTITY: 114000000 Tonnes
COMMODITY GRADE
Copper 0.2900 Per cent
Molybdenum 0.0180 Per cent
COMMENTS: Reserves based on 0.30 per cent copper equivalent cutoff grade.
REFERENCE: Property File - Report by Acres Consulting, 1981.

CAPSULE GEOLOGY

The Gambier Island occurrence is located along Gambier Creek on the northern end of Gambier Island in Howe Sound.
The first claim on Gambier Island was staked in 1905 and coincided with exploration and development of the Britannia mine

CAPSULE GEOLOGY

(092GNW003). In the early 1970s, Gaylord Mines staked the northern section of Gambier Island to cover old known copper showings. Their exploration work defined two anomalies; the A zone on Copper Cove and the C zone on Gambier Creek. The property was again staked in 1978 by 20th Century Energy Corp. Between 1978 and 1980, a comprehensive exploration program was carried out on the C zone. This work outlined a copper-molybdenum deposit. In 1984, the claims lapsed and restaked by J.P. McGoran and R.M. Durfeld. Geochemical sampling was carried out in 1985. In 1990 and 1991, geological, geochemical and geophysical surveys were carried out on the A zone. Further work was conducted in 1992 to determine the magnitude, location and correlation (with copper) of gold values. In 1993, further geological and geochemical surveys were carried out on the A (Copper Cove), B (Gambier Creek) and C (Gambier Lake) zones. In 1994, rock and soil geochemical sampling was conducted to determine the east and south extent of the Gambier Creek deposit.

Most of Gambier Island is underlain by mafic volcanic strata and associated sediments of the Lower Cretaceous Gambier Group. Granitic rocks of the Jurassic to Cretaceous Coast Plutonic Complex underlie the southern part of the island. The volcano-sedimentary rocks generally strike northwest with steep northeast dips.

The Gambier Island deposit area is underlain by rocks of the Gambier Group, dioritic rocks of the Coast complex and related granitic rocks of possible Tertiary age, and isolated post-mineral dacite porphyry dikes. Gambier Group rocks consist of a northwest trending series of argillites, volcanic wackes and breccias, propylitic rocks and massive andesitic rocks and related breccias, which comprise a broad zone of hydrothermally altered and hornfelsed rock. Within this zone at its south end, andesitic rocks have been converted to a granoblastic assemblage of quartz, sericite, biotite, chlorite and epidote, a result of complex multistage overprinting of phyllic, potassic and propylitic mineral assemblages. Dioritic rocks are barren except for small amounts of pyrite. Tertiary(?) granitic rocks are a heterogeneous assemblage of quartz porphyry, breccia and subporphyritic granite. They form a northwest trending, oval-shaped stock approximately 500 metres in diameter. Quartz forms conspicuous phenocrysts up to 2 centimetres, enclosed by altered feldspar phenocrysts and anhedral aggregates of chlorite, sericite and quartz.

An area comprised of a broad, arcuate zone of mineralized rock is concordant to the south and west contact of the quartz porphyry stock, and encloses a low grade core rich in quartz veinlets. The quartz veinlets range from a few isolated veins to intense stockworks and are common throughout the porphyry body and enclosing volcanics. Most veinlets trend northwest and form a south-closing arcuate stockwork zone with the porphyry mass, and the peripheral altered and mineralized volcanic rocks. The veinlets are selvage-free and generally contain small amounts of pyrite, molybdenite and chalcopyrite, but many are barren.

Mineralization in the quartz porphyry stock and the enclosing volcanic strata form a broad, west-closing arcuate zone 1200 metres long and 200 metres wide and extends for 100 to 400 metres outward from its south and west contact. Barren to low grade pyritic rocks, locally containing small veins rich in sphalerite, galena and chalcopyrite, are more or less concentric to the porphyry stock. Fracture coatings, veinlets and finely disseminated aggregates of pyrite, chalcopyrite and molybdenite occur in altered volcanic rocks close to the south contact of the quartz porphyry and in a narrow extension of the deposit north of Gambier Creek. Chalcopyrite, pyrite and rare bornite occur as widely dispersed, fine grained disseminated aggregates and fracture-coatings within this zone. Molybdenite forms small rosettes in quartz stringers and is locally present on fracture surfaces.

Dacite porphyry dikes intrude both the quartz porphyry unit and the enclosing volcanic strata. The dikes strike northeast, are subvertical and commonly fill fault zones. The dikes range from 20 centimetres to 3 metres wide, have fine chilled margins, and grade inward to medium grained quartz feldspar porphyry. The dikes are notably barren and locally contain inclusions of mineralized wallrock.

Major fault zones are believed to exist along Gambier Creek valley, South Fork Creek and East Fork Creek. The Gambier Creek shear zone is thought to be a broad, northeast trending cataclastic zone that passes through the north part of the mineralized zone, the quartz porphyry unit and much of the enclosing volcanic and sedimentary strata. The South Fork fault is considered to be a bounding fault that separates most of the mineralized volcanic rocks to the west from the barren, dioritic rocks to the east. The East Fork fault is a parallel fault along which the north contact of the diorite stock has been displaced southward.

CAPSULE GEOLOGY

Measured reserves are 114 million tonnes of ore grading 0.29 per cent copper and 0.018 per cent molybdenum at a 0.30 per cent copper equivalent cutoff grade (Property File - Report by Acres Consulting Services Ltd., 1981).

In 1990, 44 per cent of 32 rock samples yielded greater than 0.05 per cent copper and a maximum of 0.40 per cent copper (Assessment Report 21185). A 20 parts per billion gold isopleth was defined at the Gambier Creek zone, as the result of rock sampling in 1992. In 1993, the Gaylord Mines 1972 drill site was located at the Copper Cove zone, which yielded 0.117 per cent copper over 248 metres of this copper porphyry target. Strongly anomalous copper values from soil sampling in the vicinity of the Gambier Creek zone indicate the limits of mineralization may extend beyond the present defined limits. A sample from the Gambier Lake zone yielded up to 0.82 per cent copper (Assessment Report 22841).

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GCNL #29,#101,#120,#169,#246,#225, 1979; #148,#239, 1980; #128, 1981
N MINER Aug.30, Sept.13, 1979; Oct.22, 1981
Falconbridge File

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 129
REPORT: RGEN0100

MINFILE NUMBER: **092GNW026**

NATIONAL MINERAL INVENTORY: 092G13 Mo1

NAME(S): **PERKETTS CREEK**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 29 N
LONGITUDE: 123 46 29 W
ELEVATION: 1065 Metres

NORTHING: 5521284
EASTING: 444296

LOCATION ACCURACY: Within 1 KM

COMMENTS: Molybdenum occurrence from Geological Survey of Canada Map 42-1963.

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Magmatic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Cretaceous-Tertiary			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

A molybdenum occurrence, shown on the Geological Survey of Canada Map 42-1963, is reported to occur near the headwaters of Perkettes Creek within quartz diorite of the Cretaceous to Tertiary Coast Plutonic Complex. No further information is available.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/05

CODED BY: GSB
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW026**

MINFILE NUMBER: **092GNW027**

NATIONAL MINERAL INVENTORY:

NAME(S): **JON, SUNDOWN**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 39 40 N
LONGITUDE: 123 57 45 W
ELEVATION: 137 Metres

NORTHING: 5501397
EASTING: 430537

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralized zone on Jon 35 claim (Assessment Report 5459, Map 3).

COMMODITIES: Copper

Molybdenum

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Silica
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0143 x 0032 Metres STRIKE/DIP: 150/60E TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Upper Jurassic

Coast Plutonic Complex

LITHOLOGY: Granite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: PIT

REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1972
SAMPLE TYPE: Chip
COMMODITY: Copper GRADE Per cent
0.1000

COMMENTS: Across 1.5 metres.
REFERENCE: Property File (Beewar, R.N. (1972)).

CAPSULE GEOLOGY

A small zone of sparse copper-molybdenum mineralization occurs 3 kilometres northeast of the head of Pender Harbour, 3 kilometres southeast of Sakinaw Lake on Sechelt Peninsula.

The Jon showing is hosted in granite and granodiorite of Upper Jurassic age within the southwestern margin of the Jurassic to Tertiary Coast Plutonic Complex.

A fault zone striking 150 degrees for at least 140 metres and dipping 60 degrees northeast is mineralized with disseminated pyrite and pyrrhotite with minor to trace amounts of chalcopyrite and molybdenite. The zone varies up to 32 metres in width. The granite and granodiorite are silicified and weakly clay altered within this fault zone. Two 1.5 metre long chip samples assayed 0.1 per cent copper, trace molybdenum, and 0.01 per cent copper, 0.01 per cent molybdenum respectively (R.N. Beewar, 1972).

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EMPR BULL 39
EMPR EXPL 1975-106,107; 1977-119,120
EMPR GEM 1973-241
EMPR PF (*Beewar, R.N. (1972): The Jon Group - Summary, Conclusions and Recommendations; Prospectus - Yukonadian Mineral Explorations Ltd., p. 12)
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 131
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 90-1F, pp. 95-101
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW028**

NATIONAL MINERAL INVENTORY:

NAME(S): **A.B.C.**, ABC, ABC - MAGGIE

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 21 N
LONGITUDE: 123 01 33 W
ELEVATION: 716 Metres

NORTHING: 5498513
EASTING: 498135

LOCATION ACCURACY: Within 500M

COMMENTS: Adit, on the north side of Indian River, on the east bank of the most northerly tributary of Indian River, 2 kilometres south of the summit of Mount Baldwin, 11.5 kilometres southeast from the town of Squamish (Fieldwork 1987, page 296).

COMMODITIES: Copper Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite

ALTERATION: Biotite Silica

COMMENTS: Intensely hornfelsed and silicified zone.

ALTERATION TYPE: Silicific'n Biotite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated

CLASSIFICATION: Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Hornfels
Felsic Flow
Felsic Tuff
Tuff Breccia
Argillite
Chert
Breccia
Andesite Dacite Tuff
Andesite Dacite Flow

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Contact Regional

Plutonic Rocks

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Hornfels
Greenschist

CAPSULE GEOLOGY

The A.B.C. area occurs on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The A.B.C. occurrence is underlain by Gambier Group rocks consisting of a northwest trending sequence of felsic flows, tuffs, tuff breccia, argillite, chert and breccia, and andesite to dacite tuffs and flows. Pliocene to Recent Garibaldi Group basaltic dykes occur nearby (see Maggie - 092GNW036, for a detailed geological description of the area). The showing is on, or close to, the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley.

An area of disseminated pyrite, chalcopyrite and sphalerite mineralization (up to 4 per cent sulphides) is associated with an intensely hornfelsed and silicified zone. Numerous faults and a

CAPSULE GEOLOGY

pervasive S1 cleavage are evident in the area.
Past work consisted of a short adit driven in the east bank of the most northerly tributary of Indian River. Portal One of the War Eagle occurrence (092GNW042) is 500 metres north-northwest.

BIBLIOGRAPHY

EMPR AR 1917-F276
EMPR FIELDWORK 1980, pp. 165-178; *1987, pp. 295-300
EMPR PF (see Belle - 092GNW014 for claim map)
GSC MAP 42-1963; 1386A
GSC MEM 158, p. 117
GSC OF 611
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/29

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW029**

NATIONAL MINERAL INVENTORY:

NAME(S): **VENETIAN, NANI, DAISY**

MINING DIVISION: Vancouver

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092G14E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 58 57 N
 LONGITUDE: 123 06 57 W
 ELEVATION: 730 Metres

NORTHING: 5536691
 EASTING: 491696

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located to the east of the southern end of Daisy Lake (Stevenson, (1969), Appendix B).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Epigenetic Hydrothermal

DIMENSION:

STRIKE/DIP: 105/25S

TREND/PLUNGE:

COMMENTS: Quartz vein.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Lower Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Argillite
 Sandstone
 Conglomerate

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1936

SAMPLE TYPE: Grab

COMMODITY

GRADE

COMMODITY	GRADE	UNIT
Silver	123.4300	Grams per tonne
Gold	4.1100	Grams per tonne
Copper	2.0000	Per cent

REFERENCE: Property File (O'Grady, B.T. (1936): Special Report on Nani Claim).

CAPSULE GEOLOGY

The Nani occurrence is underlain by a volcanic and volcanic-sedimentary roof pendant which trends northeast within the southern part of the Jurassic to Tertiary Coast Plutonic Complex. The volcanic rocks strike north to northwest with various dips. The roof pendant rocks include greenstones, agglomerates, tuffs, schists, rhyolitic volcanics, tuffaceous agglomerates, limestone, graphic argillite and mixed sedimentary and volcanic conglomerates. Metamorphism is variable but northwest trending foliations are common. Local areas are capped by Tertiary basalts. Intrusive rocks of the Coast Plutonic Complex are locally dioritic in composition and lie southeast and north of the area.

In the immediate vicinity of the workings there are argillites, and sandstone grading to conglomerate. The local strike of the rocks is 150 degrees, dips being approximately vertical. Within highly metamorphosed argillites there is a meandering body of quartz that pinches and swells from several centimetres up to 5 metres in width. The vein has a general strike of 105 degrees and a dip of between 20 and 35 degrees south. The main showing, up to 4.6 metres in width with country rock inclusions, has a southerly dip into the hill of 20 to 30 degrees.

Mineralization is light, consisting of scattered streaks and disseminations of pyrite and chalcopyrite occurring chiefly along the walls or in shattered quartz areas. A selected sample of well min-

CAPSULE GEOLOGY

eralized material assayed 4.11 grams per tonne gold, 123.43 grams per tonne silver and 2.0 per cent copper (O'Grady, 1936).

Plans of the workings drawn up around 1936 show about 260 metres of underground development in two tunnels, with indication of another several hundred feet more of proposed tunnelling. About 13.6 tonnes of ore are reported to have been picked and sacked for shipment (Geological Survey of Canada Summary Report, 1917, Part B).

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EMPR FIELDWORK 1980, pp. 165-178
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GSC MAP 42-1963; 1386A
GSC MEM 158
GSC OF 611
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
GSC SUM RPT *1917, Part B, p. 21
IPDM Aug/Sept 1983
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/08

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW030**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUN**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 34 16 N
LONGITUDE: 123 04 19 W
ELEVATION: 1067 Metres

NORTHING: 5490949
EASTING: 494798

LOCATION ACCURACY: Within 500M

COMMENTS: Adit on the "Second West" fork of Seymour River, 4 kilometres south of Loch Lomond, 17.5 kilometres south from the town of Squamish (GSC Open File 611).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Breccia
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Volcanic Rock
Sediment/Sedimentary Rock
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

Gambier
RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1917

COMMODITY

Copper

GRADE

1.0000

Per cent

REFERENCE: Minister of Mines Annual Report 1917, page F279.

CAPSULE GEOLOGY

The area is on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented northwesterly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Sun occurrence is underlain by volcano-sedimentary rocks of the Gambier Group surrounded by quartz diorite of the Coast Plutonic Complex. A wide (up to 30 metres) mineralized zone strikes northwest for a length of 30 metres as determined by an historic adit. The zone is within brecciated country rock and contains disseminated pyrite and chalcopyrite. A grab sample assayed 1 per cent copper (Minister of Mines Annual Report 1917).
Past work included an adit and open cuts.

BIBLIOGRAPHY

EMPR AR *1917-F279
EMPR FIELDWORK 1980, pp. 165-178
GSC MAP 42-1963; 1386A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 137
REPORT: RGEN0100

BIBLIOGRAPHY

GSC MEM 158
GSC OF 611
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/04

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW031**

NATIONAL MINERAL INVENTORY:

NAME(S): **SEHELTA CARBONATE** PENINSULA LIME, MC,
CARLSON LAKE

STATUS: Developed Prospect

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G12W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 36 03 N

LONGITUDE: 123 53 19 W

ELEVATION: 858 Metres

NORTHING: 5494630

EASTING: 435791

LOCATION ACCURACY: Within 500M

COMMENTS: Located centred on collar of drill hole 92P86-8 as shown in Assessment Report 15593, Figure 5.

COMMODITIES: Dolomite

Limestone

MINERALS

SIGNIFICANT: Dolomite

Calcite

ASSOCIATED: Quartz

Muscovite

Chlorite

Serpentinite

Diopside

Olivine

Talc

Graphite

MINERALIZATION AGE: Upper Triassic

DEPOSIT

CHARACTER: Stratabound

Massive

CLASSIFICATION: Sedimentary

Industrial Min.

TYPE: R09 Limestone

COMMENTS: Beds trend north, dip moderately to steeply east.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Upper Triassic

Vancouver

Karmutsen

Coast Plutonic Complex

Mesozoic-Cenozoic

LITHOLOGY:

Limestone

Dolomite

Meta Volcanic Rock

Amphibolite

Andesite

Basalt

Quartz Diorite

Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

Wrangell

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE: Greenschist

COMMENTS: Within a roof pendant in the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SEHELTA CARBONATE

REPORT ON: Y

CATEGORY: Measured

YEAR: 1987

QUANTITY: 3500000 Tonnes

COMMODITY

GRADE

Dolomite

19.2000

Per cent

COMMENTS: Grade given for MgO.

REFERENCE: Assessment Report 15593.

CAPSULE GEOLOGY

Various masses of dolomite and limestone occur over a 3 kilometre length in a northwest trending pendant of Upper Triassic Karmutsen Formation(?) metavolcanics and metasediments (Geological Survey of Canada Open File 611) just northwest of Carlson Lake, 13 kilometres east of Pender Harbour on the Sechelt Peninsula. This pendant lies in diorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. The beds within the pendant strike north and dip moderately to steeply east. The beds are comprised mostly of carbonate outcropping over widths in excess of 150 metres with some amphibolite, skarn altered metavolcanics and north trending, steeply dipping andesitic to basaltic dykes(?) 2 to 20 metres wide. These units are displaced by faults commonly trending 160 to 165 degrees.

The carbonates consist of fine to coarse-grained, white to

CAPSULE GEOLOGY

medium grey, banded limestone and fine to medium-grained, white to medium grey, massive to mottled dolomite. Minor to trace amounts of quartz, muscovite, serpentinite, diopside, olivine, talc, graphite and pyrite are present in the limestone. The dolomite contains minor chlorite and quartz. Veins of dolomite and calcite commonly cut the dolomite. Ten composite samples collected from various limestone outcrops averaged 55.3 per cent CaO, 0.5 per cent MgO, 0.7 per cent SiO₂, 0.2 per cent R₂O₃ and 43.3 per cent ignition loss (Wright Engineering, 1983, page 7 in Prospectus by Candol Developments Ltd.). Assays of the dolomite range from 16.8 to 20.0 per cent MgO (Assessment Report 15593, page 11).

Reserves were initially estimated by Wright Engineering in 1983 for limestone and dolomite over a 3 kilometre strike length. Indicated reserves estimated to a depth of 50 metres and inferred reserves estimated from 50 to 300 metres are given as follows (Wright Engineering, 1983, page 4):

	Indicated (tonnes)	Inferred (tonnes)	Total (tonnes)
Dolomite	17,500,000	100,000,000	117,500,000
Limestone	7,500,000	20,000,000	27,500,000

Drilling between 1985 and 1987 defined a 30 to 80 metre wide body of dolomite at least 500 metres long, that is bounded to the west by limestone and to the east by an andesitic dyke. The deposit is estimated to contain measured geological reserves of 3.5 million tonnes of dolomite averaging 19.2 per cent MgO for an average width of 55 metres over a 500 metre strike length down to 50 metres in depth (Assessment Report 15593, page 23; Open File 1992-1).

Peninsula Lime and Magnesia Ltd. carried out some initial stripping and mapping between 1970 and 1971. A small crushing mill was assembled by the company during this time. A minor amount of work was conducted by Stoney Plain Industries in 1978. Candol Developments Ltd. carried out an extensive program of mapping, sampling and diamond drilling (1423 metres) between 1983 and 1987.

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- EMPR EXPL 1977-119; 1978-286; 1980-535; 1987-A82
- EMPR GEM *1971-465-467; 1973-240-241
- EMPR MAP 65 (1989)
- EMPR OF 1992-1; 1992-9
- EMPR PF (Prospectus Candol Developments Ltd. (1984); Reports by Stoney Plain Mining (1980); Wright Engineering (1983); Bechtel Engineering (1986))
- GSC MAP 42-1963; 1069A; 1386A
- GSC OF 611
- GCNL #246, 1984; #7, July 4, 1985; #24, 1986
- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/01/06

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW032**

NATIONAL MINERAL INVENTORY:

NAME(S): **WAR, MOLLY, BRANTA**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 39 N
LONGITUDE: 123 53 48 W
ELEVATION: 1113 Metres

NORTHING: 5499455
EASTING: 435266

LOCATION ACCURACY: Within 500M
COMMENTS: Drill hole 79-1 (Assessment Report 7998).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Chlorite Sericite
ALTERATION TYPE: Silicific'n Chloritic Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Porphyry Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 1700 x 0850 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Bedding strikes north, dips steeply.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	Coast Plutonic Complex
Upper Jurassic			

LITHOLOGY: Meta Diorite
Greenstone
Volcanic Flow
Tuff
Argillite
Quartzite
Chert
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Wrangell
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Located within a roof pendant in the Coast Plutonic Complex.

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1979
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Copper 0.0490 Per cent
Molybdenum 0.0024 Per cent

COMMENTS: Average of 66.2 metre long hole.
REFERENCE: Assessment Report 10352 page 38.

CAPSULE GEOLOGY

Widespread low grade copper-molybdenum mineralization is exposed just east of Lyon Lake, 14.5 kilometres north of Halfmoon Bay on the Sechelt Peninsula.

The War showing is hosted in a roof pendant of carbonates, amphibolite and related metavolcanics of the Upper Triassic Karmutsen Formation(?), engulfed in diorite and quartz diorite of Upper Jurassic age, within the southwestern margin of the Jurassic to Tertiary Coast Plutonic Complex. The roof pendant trends north-northwest along the east side of the Sechelt Peninsula for 12 kilometres.

A zone of sulphide mineralization is developed over a 1700 by 850 metre area in the north end of the pendant, within north striking, steeply dipping volcanic flows and tuffs altered to meta-

CAPSULE GEOLOGY

diorite, and greenstone accompanied by minor argillite, quartzite, chert and limestone. These units exhibit extensive chlorite and sericite alteration. Pyrite occurs with minor molybdenite and chalcopryrite as fracture-fillings, disseminations and blebs in the volcanics and sediments, and in a stockwork of quartz veinlets. This sulphide mineralization is accompanied by intense silicification. A hole drilled in an area of greater sulphide mineralization assayed 0.049 per cent copper and 0.0024 per cent molybdenum over a core length of 66.2 metres (Assessment Report 10352, page 38).

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EMPR ASS RPT *3532, *3909, *4675, 6271, 7998, *10352
EMPR BULL 39
EMPR EXPL 1977-119
EMPR GEM 1972-277; 1973-241
EMPR PF (Bethlehem Copper Corp. Ltd (1972): Geological Map of the War Claim Group)
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-101
GCNL #250, 1982
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW033**

NATIONAL MINERAL INVENTORY:

NAME(S): **DAY**, EDDY, QUINSTAR

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 40 34 N
LONGITUDE: 123 57 51 W
ELEVATION: 151 Metres

NORTHING: 5503067
EASTING: 430438

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on hole Q-1 on Highway 101 (Assessment Report 7264).

COMMODITIES: Copper Molybdenum Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Sphalerite
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 0210 x 0024 Metres
COMMENTS: Shear zone strikes north-northeast.

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY
Copper
Molybdenum

GRADE	Per cent
0.0500	Per cent
0.0040	Per cent

COMMENTS: Across 6.1 metres.
REFERENCE: Assessment Report 3757.

CAPSULE GEOLOGY

Low grade polymetallic mineralization is exposed along Highway 101, 4.3 kilometres north-northeast of the head of Pender Harbour on the Sechelt Peninsula.

At the Day showing, silicified shear zone up to 24 metres wide strikes north-northeast for 210 metres in granodiorite and quartz monzonite of Upper Jurassic age, within the Jurassic to Tertiary Coast Plutonic Complex.

The shear zone is mineralized with minor amounts of pyrite, chalcopyrite, molybdenite and sphalerite as disseminations and fracture-fillings. A chip sample taken across a width of 6.1 metres assayed 0.05 per cent copper and 0.004 per cent molybdenum (Assessment Report 3757, Map 2). An angled drill hole encountered a section grading 0.01 per cent copper and 0.134 per cent molybdenum between 4.36 and 4.57 metres depth (Assessment Report 7264, p. 2).

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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PAGE: 143
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW034**

NATIONAL MINERAL INVENTORY:

NAME(S): **ADRIANA**, NAB

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 03 N
LONGITUDE: 123 25 36 W
ELEVATION: 434 Metres

NORTHING: 5498044
EASTING: 469191

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralization in road cut 200 metres west of McNab Creek, 9 kilometres north from the McNab Creek lumber camp at the shoreline, 13 kilometres north-northeast of the pulp mill at Port Mellon (Assessment Report 7935).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Bornite
ASSOCIATED: Quartz Sericite Epidote Chlorite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP
Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Granodiorite
Meta Volcanic Rock
Meta Sediment/Sedimentary Rock

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

Gambier

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The Adriana occurrence is underlain by various phases of the Cenozoic-Mesozoic Coast Plutonic Complex and a small pendant of Lower Cretaceous Gambier Group metavolcanic and metasedimentary rocks. The intrusive rocks vary from quartz diorite with diorite inclusions, to granodiorite. Mineralization consisting of pyrite, chalcopyrite, molybdenite and minor bornite occurs in the quartz diorite near its projected contact with granodiorite. The sulphides occur either on fracture plane surfaces or are associated with quartz veining. Minor sericite, epidote and chlorite are evident.

Gambier Group rocks mask the eastward continuation of the mineralization.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/05

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW035**

NATIONAL MINERAL INVENTORY:

NAME(S): **MC, SECHELT**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 35 42 N
LONGITUDE: 123 53 01 W
ELEVATION: 853 Metres

NORTHING: 5493977
EASTING: 436144

LOCATION ACCURACY: Within 500M

COMMENTS: Showing on MC 2 claim (Assessment Report 4803, Fig. 5A).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite

ASSOCIATED: Magnetite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Epigenetic Hydrothermal
DIMENSION: 0015 x 0003 Metres

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Wrangell

Plutonic Rocks

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE: Greenschist

COMMENTS: Hosted in a roof pendant within the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1973

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

24.0000

Grams per tonne

Copper

0.9600

Per cent

REFERENCE: Assessment Report 4803, page 2.

CAPSULE GEOLOGY

The showing is situated on the Sechelt Peninsula, 1.9 kilometres north-northwest of the north end of Carlson Lake, 9.5 kilometres north-northeast of Halfmoon Bay.

The MC showing is hosted in a roof pendant of carbonates, amphibolite and related metavolcanics of the Upper Triassic Karmutsen Formation(?) (Vancouver Group), engulfed in diorite and quartz diorite of Upper Jurassic age, within the southwestern margin of the Jurassic to Tertiary Coast Plutonic Complex. The roof pendant trends north-northwest along the east side of the Sechelt Peninsula for 12 kilometres.

The showing consists of a shear zone striking for 15 metres in limestone and varying up to 3 metres in width and is mineralized with chalcopyrite and minor pyrite and magnetite. A grab sample assayed 0.96 per cent copper, 24.0 grams per tonne silver and a trace of gold (Assessment Report 4803, page 2).

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RUN TIME: 09:30:14

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PAGE: 146
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/04

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW036**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAGGIE**, MAGGIE - SLUMACH, HOPKINS,
MAIN VEIN, EAST VEIN, PORTAL TWO,
CLARKE, MAR, FALCON,
CELESTE, JODY, BOB,
JANETTE, SANTANNA, HAROLD FR.

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

Underground

MINING DIVISION: Vancouver

LATITUDE: 49 38 02 N
LONGITUDE: 123 01 37 W
ELEVATION: 925 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5497926
EASTING: 498054

LOCATION ACCURACY: Within 500M

COMMENTS: Portal Two of the Slumach zone, near the headwaters of the Indian River on the south side, 4 kilometres north of Loch Lommond, 12 kilometres south-southeast from the town of Squamish (Fieldwork 1987).

COMMODITIES: Gold Silver Copper Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Sphalerite Chalcopyrite Galena Gold
COMMENTS: Trace galena.
ASSOCIATED: Quartz Chlorite Barite
ALTERATION: Biotite Silica Chlorite Cordierite
ALTERATION TYPE: Biotite Chloritic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn 105 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 70 x 1 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Main vein; 30 to 70 centimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Jurassic-Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Tuffaceous Sediment/Sedimentary
Felsic Lapilli Tuff
Hornfels
Andesitic Dike
Felsic Dike
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Contact Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

Plutonic Rocks

RELATIONSHIP: Pre-mineralization

GRADE: Hornfels
Greenschist

COMMENTS: Lower greenschist facies.

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1988

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Silver	274.2000	Grams per tonne
Gold	253.3000	Grams per tonne
Copper	0.2800	Per cent
Lead	0.3800	Per cent
Zinc	4.7500	Per cent

COMMENTS: Sample over 1.0 metre width.

REFERENCE: George Cross News Letter #230, 1988.

CAPSULE GEOLOGY

The Maggie occurrence is located about 11 kilometres from Squamish, British Columbia, near the Indian River. The War Eagle occurrence (092GNW042) is located 1075 metres north of the Maggie.

CAPSULE GEOLOGY

The War Eagle has been explored sporadically by a number of companies for many years and has long been recognized as having good potential for hosting economic mineralization similar to the nearby Britannia deposits (092GNW003). Under option from International Maggie Mines Ltd., Placer Development Limited systematically tested drill targets between 1978 and 1979. A total of 1310 metres were drilled in 10 holes, near the War Eagle adit. The option was terminated in 1980 and between 1981 and 1982, International Maggie Mines Ltd. completed an additional 37 drillholes, totalling 4500 metres. In 1983, the Slumach vein (Maggie, 092GNW036) was discovered 1 kilometre southeast of the War Eagle adit; a followup of several soil anomalies. A 55-metre crosscut, a raise and an 18-metre drift were driven but mineable widths of mineralization were not intersected. Minnova Inc. entered into an option agreement in 1987 and began exploring the area for volcanogenic massive sulphide deposits. In 1989, two drillholes were drilled to test several induced polarization anomalies.

The Maggie property area occurs on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp. The Britannia-Indian River pendant is mainly a calcalkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been assigned to the Lower Cretaceous Gambier Group. Jurassic to Cretaceous Coast Plutonic Complex intrusions surround portions of the stratified rocks creating screens or pendants; these bodies are oriented northwesterly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dikes and sills intrude both the pendant and plutonic rocks.

The occurrence area is underlain by rocks of the lower Gambier Group. A basal sequence, at least 350 metres thick, consists of a north striking succession of felsic flows interbedded with shales, tuff breccia and lapilli tuff. Dips are steeply west and east. The top of this sequence is truncated by granodiorite that serves as a partition from six major overlying units that form a continuous stratigraphic package at least 2.5 kilometres thick. This succession dips moderately south-southwest and are described from oldest to youngest. Unit 1, with a minimum thickness of 25 metres, consists of lower intermediate tuffs and flows comprised of dark green, massive andesitic to dacitic tuffs with minor intermediate flows. Unit 2 consists of felsic tuffs, flows and sedimentary interbeds lying conformably above Unit 1 and comprises a 750 metre thick felsic tuffaceous succession with argillite and chert beds. Numerous cycles of explosive volcanism are indicated by the repeated layers of coarse tuff breccia with fragments up to tens of centimetres across. The middle of this unit is dominated by numerous shale and tuffaceous chert horizons. The breccia at the War Eagle (092GNW042) adit is at the stratigraphic top of these sediments. The hornfelsed upper part of Unit 2 hosts the Slumach gold zone. Lithologies that host the Slumach veins are probably felsic lapilli tuffs as suggested by rocks on strike with the hornfelsed mineralized zone. Massive intermediate to mafic flows (Unit 3) form resistant bluffs and comprise massive, dark green intermediate flows that total 150 metres in thickness. Felsic tuffs, sediments and intermediate interbeds (Unit 4) conformably overlie the massive flows of Unit 3. A thick felsic tuffaceous series with several intermediate interbeds has a total thickness varying from a minimum of 150 metres to over 650 metres. The lithology consists generally of thin to massive beds of ash to lapilli tuff interlayered with thin shale or greywacke beds. Extensive intermediate to mafic volcanic units interfinger with the above felsic rocks and consist of hornblende and pyroxene porphyritic mafic flows. Massive volcanics (Unit 5) consist of intermediate tuffs and flows and interbedded felsic tuffs and fine ash beds. Upper felsic tuffs and overlying undifferentiated units (Unit 6) conformably overlie Unit 5.

Three major types of Coast Plutonic Complex intrusive bodies intrude the volcano-sedimentary sequence: a diorite pluton, the Early Cretaceous Squamish granodiorite pluton and several small quartz feldspar porphyritic rhyodacite bodies. Locally the diorite is strongly foliated and metamorphosed up to the lower amphibolite facies near the contact with the granodiorite. The Squamish pluton often has faulted contacts where it intrudes the earlier diorite. The porphyritic rhyodacite intrusions are small massive dikes and bodies that intrude the plutons. Garibaldi Group basaltic dikes intrude the Gambier Group rocks and plutonic bodies.

The entire Britannia-Indian River pendant exhibits lower greenschist facies regional metamorphism that has little effect on the felsic units but renders the units of intermediate composition massive and difficult to distinguish as tuffs or flows. A common alteration mineral assemblage includes chlorite-epidote-quartz-

CAPSULE GEOLOGY

sericite plus or minus zeolites. Lower amphibolite grade metamorphism within the diorite pluton is evident peripheral to the Squamish granodiorite. The Squamish granodiorite pluton has been dated as Early Cretaceous (114 Ma +/- 40 Ma) using a two-point rubidium-strontium isochron (Fieldwork 1987). Contact metamorphic hornfels is widespread in mineralized areas peripheral to the plutons. Pervasive purplish brown secondary biotite development is often accompanied by silicification and chloritization. The hornfels is easily distinguished in hand specimen by pale brown, ovoid porphyroblasts (cordierite with quartz) with a dark brown biotitic groundmass.

West of the Indian River, bedding strikes northwest, dips southwest and shows numerous tops facing southwest. Near the War Eagle occurrence, bedding is flat to gently southwest dipping. East of the Indian River, bedding strikes northwest and dips steeply northeast. The dip reversal is interpreted as an anticline that is tilted to the northeast. A pervasive axial plane cleavage strikes northwest and dips steeply to the southwest. Cleavage and bedding attitudes in the west half of the Indian River valley indicate the axis of the anticline lies to the northeast and has a shallow northwest plunge. A second cleavage striking north and dipping moderately to the west is axial planar to minor folds with steep northwest plunging axes. Faults and shears generally strike north to northwest but northeast trending structures have also been mapped.

Mineralization on the Maggie property includes: (1) a volcanogenic system with low-grade stratiform layers and some crosscutting stringer zones (War Eagle); and (2) higher grade gold mineralization in quartz-chlorite veins cutting hornfels (Slumach zone). The Maggie property has five mineralized zones; the Belle (092GNW014), ABC (092GNW028), Christina (092GNW041), War Eagle (092GNW042), and Slumach. These occurrences are all on, or close to, the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley.

Work on the property is concentrated in the mineralized areas where two adits have been driven. Adit 1 or Portal One is driven along a zone of shearing approximately 50 centimetres wide containing remobilized or stringer mineralization (see 092GNW042, War Eagle for further description). Mineralization at Adit 2 or Portal Two consists of two quartz-chlorite veins which cut an intensely hornfelsed zone characterized by pervasive biotitization, local silicification and development of chlorite and cordierite (Slumach zone). The War Eagle occurrence is located 1075 metres north of the Slumach zone or Portal Two area. The Main and East veins of the Slumach zone trend northwest and dip steeply northeast. They are mineralized with up to 15 per cent sulphides, primarily pyrite, sphalerite, chalcopyrite and traces of galena in a brecciated and silicified wallrock gangue. The sulphides appear to have been rebrecciated and cemented by quartz. Fragments of wallrock within the vein are totally biotitized or chloritized and have cockscomb quartz envelopes. Both veins consist of a higher grade (gold-silver) vein, approximately 1 metre wide, with lower grade altered hangingwalls and footwalls. The wallrocks are intensely hornfelsed tuffaceous sediments of Unit 2 or felsic lapilli tuffs. Numerous late, dark green andesitic dikes and felsic dikes cut the zone at varying angles.

The Main vein varies from 30 to 70 centimetres wide over its 70 metres known length. It averages 65.6 grams per tonne gold over a 31 centimetre width based on nine channel samples from the Portal Two subdrift (Fieldwork 1987). Free gold has been reported and an association of gold within pyrite and chalcopyrite has been determined. A recent drillhole intersection across 1 metre of the Slumach horizon assayed 253.3 grams per tonne gold, 274.2 grams per tonne silver, 0.28 per cent copper, 4.75 per cent zinc and 0.38 per cent galena (George Cross News Letter #230, 1988). The East vein, 9 metres east of the Main vein, is at least 20 metres long and varies from 30 to 200 centimetres in width. A second zone of quartz with galena, sphalerite, pyrite and coarse euhedral barite lies above the Slumach zone, but its extent is not known.

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- GSC MEM 158; 335
- GSC OF 611

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IPDM Nov/Dec 1982; Jan/Feb 1983; March/April, May/June, 1984
N MINER Aug.25, Nov.10, 1983; July 11, 1988
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DATE CODED: 1990/05/29
DATE REVISED: 1997/07/30

CODED BY: GO
REVISED BY: KJM

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092GNW037**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOLY, ANDY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 33 N
LONGITUDE: 123 12 07 W
ELEVATION: 670 Metres

NORTHING: 5504462
EASTING: 485435

LOCATION ACCURACY: Within 500M

COMMENTS: Sample location in creek bed, 2.25 kilometres south of Echo Lake,
3.5 kilometres west from the town of Squamish (Assessment Report
4363).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated Shear
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: L08 Porphyry Mo (Climax-type)

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Tertiary	Garibaldi	Undefined Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite
Dacite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Moly occurrence area is underlain by granodiorite of the
Cenozoic-Mesozoic Coast Plutonic Complex. Pliocene to Recent
Garibaldi Group dacitic volcanic rocks occur nearby.

Disseminated molybdenite occurs in fractures in granodiorite of
the Coast Plutonic Complex at three separate showings. In an adit,
chalcopyrite and minor molybdenite were found. Just to the east of
these showings, copper and molybdenum sulphides occur in sheared and
fracture granodiorite (Andy showing).

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/04

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW038**

NATIONAL MINERAL INVENTORY:

NAME(S): **WATTS POINT**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 39 15 N
LONGITUDE: 123 12 33 W
ELEVATION: 213 Metres

NORTHING: 5500202
EASTING: 484902

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of quarry on Lot 7198, north of the microwave and radio towers on Watts Point, 3.25 kilometres north from the village of Britannia Beach (Geology, Exploration, and Mining in British Columbia 1970).

COMMODITIES: Aggregate

Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Dacite.

MINERALIZATION AGE: Tertiary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Volcanogenic
TYPE: R15 Crushed rock
SHAPE: Tabular
MODIFIER: Fractured

Stratabound
Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Tertiary
Mesozoic-Cenozoic

GROUP

Garibaldi

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Dacite
Vesicular Dacite Flow
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

Plutonic Rocks

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The Watts Point occurrence is underlain by Pliocene to Recent Garibaldi Group dacite flows that forms a circular pile with an 800 metre radius. Granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex surrounds the flows.

The volcanic pile is comprised of numerous individual dacite flows that appear to strike west with slight dips to the south. Columnar jointing is well developed in several places and is oriented vertically and locally horizontally. Some of the columns are 4.5 metres high and their faces range from 7 to 30 centimetres wide. The faces of the columns contain local, closely spaced cross-joints. The dacite flows are commonly vesicular and vary in colour from bluish-grey to glassy black. Flattened vesicles within the flows are up to 2 centimetres long and 1 by 1.5 centimetres in cross-section. In thin section the rock displays a trachytic texture and consists essentially of plagioclase microlites and zoned crystals, pyroxene, amphibole, magnetite and abundant brown glass.

In 1974, a crushing and screening plant was installed and twelve men produced 480,710 tonnes of crushed and sized dacite rock (Geology, Exploration and Mining in B.C. 1974). The quarry produced 25 millimetres Well Graded Base. This private quarry was closed in 1979.

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GSC MEM 158
GSC OF 611
GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
ARMS 159
MTH District Pit 1158A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1994/12/09

CODED BY: GSB
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW039**

NATIONAL MINERAL INVENTORY:

NAME(S): **RAFFUSE CREEK**, GIN

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G11E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 42 05 N
 LONGITUDE: 123 02 11 W
 ELEVATION: 670 Metres

NORTHING: 5505431
 EASTING: 497376

LOCATION ACCURACY: Within 500M

COMMENTS: Quartz vein outcrop, 2 kilometres south of the confluence of Mamquam River and Raffuse Creek, on the west bank of Raffuse Creek, 9 kilometres east from the town of Squamish (Assessment Report 11121).

COMMODITIES: Copper Zinc Silver

MINERALS

SIGNIFICANT: Chalcopyrite Sphalerite Pyrite
 ASSOCIATED: Quartz
 ALTERATION TYPE: Silicific'n Pyrite
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
 CLASSIFICATION: Epigenetic Hydrothermal
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
Tertiary	Garibaldi	Undefined Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Andesite
 Meta Diorite
 Basalt Dike
 Dacite Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 Plutonic Rocks
 RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1982
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	12.3000 Grams per tonne
Copper	1.1000 Per cent
Zinc	5.4800 Per cent

COMMENTS: Sample across 10 centimetres.
 REFERENCE: Assessment Report 11121.

CAPSULE GEOLOGY

The Raffuse Creek area is on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Raffuse Creek occurrence is underlain by andesite of the Gambier Group and metadiorite of the Coast Plutonic Complex intruded by Garibaldi Group basalt and dacite porphyry dykes. The area is heavily faulted and intense pyritization and silicification is

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CAPSULE GEOLOGY

locally developed. A small quartz vein at the showing is mineralized with chalcopyrite, sphalerite and pyrite. A grab sample assayed 1.1 per cent copper, 5.48 per cent zinc and 12.3 grams per tonne silver (Assessment Report 11121).

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DATE CODED: 1990/06/04
DATE REVISED: / /

CODED BY: GO
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW040**

NATIONAL MINERAL INVENTORY:

NAME(S): **FANG**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 53 29 N
LONGITUDE: 123 52 29 W
ELEVATION: 167 Metres

NORTHING: 5526922
EASTING: 437171

LOCATION ACCURACY: Within 500M

COMMENTS: The main mineralized zone is located just north of Perkett Creek on Jervis Inlet.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
ALTERATION: Limonite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Volcanic Rock
Quartz Feldspar Porphyry
Quartz Diorite
Quartz Monzonite
Diorite
Andesite
Rhyodacite
Pyroclastic
Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Contact

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE:

CAPSULE GEOLOGY

The Fang showing is located just north of Perkett Creek on Jervis Inlet.

The region is underlain by Jurassic to Tertiary Coast Plutonic Complex quartz monzonite, quartz diorite and diorite near the contact with volcanic and sedimentary rocks of the Lower Cretaceous Gambier Group. The Gambier Group comprises andesitic to rhyodacite flows and pyroclastics, greenstone, argillite, minor conglomerate, limestone and schist. Zones of faulting and shearing are locally common near intrusive contacts. These zones exhibit alteration and replacement mineralization.

The main mineralized zone occurs near the contact between quartz feldspar porphyry and volcanic rocks. The zone, sheared and oxidized, contains pyrite, chalcopyrite and pyrrhotite. Float containing chalcopyrite, malachite and pyrrhotite have been located in the area (one sample assayed 8.12 per cent copper, 130.26 grams per tonne silver and 0.686 grams per tonne gold).

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GSC OF 611

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PAGE: 157
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/08

CODED BY: GSB
REVISED BY: DEJ

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW041**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHRISTINA**, CHRISTINA - MAGGIE

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G11E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 54 N
 LONGITUDE: 123 00 46 W
 ELEVATION: 1341 Metres

NORTHING: 5499532
 EASTING: 499078

LOCATION ACCURACY: Within 1 KM

COMMENTS: Trenches and open cuts on the southeast slopes of Mount Baldwin, between Raffuse Creek and Stawamus and Indian rivers, 12 kilometres southeast from the town of Squamish (Minister of Mines Annual Report 1937).

COMMODITIES: Copper Silver Zinc Lead Gold

MINERALS

SIGNIFICANT: Pyrite Sphalerite Chalcopyrite Galena
 ASSOCIATED: Silica
 ALTERATION TYPE: Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
 CLASSIFICATION: Volcanogenic Epigenetic Hydrothermal
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Felsic Meta Volcanic Rock

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional

Plutonic Rocks PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1937
 SAMPLE TYPE: Grab
COMMODITY GRADE

Silver	212.5000	Grams per tonne
Gold	0.6800	Grams per tonne
Copper	1.6000	Per cent
Lead	11.0000	Per cent
Zinc	16.5000	Per cent

COMMENTS: Sample from the better mineralization in a silicified zone.
 REFERENCE: Minister of Mines Annual Report 1937, page F26.

CAPSULE GEOLOGY

The Christina area is on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Christina occurrence comprises a scattered series of outcrops of sheared felsic metavolcanic rocks of the Gambier Group, mineralized with disseminated pyrite, sphalerite, chalcopyrite and galena. Local silicification is evident. The showing is north of the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley.

CAPSULE GEOLOGY

A grab sample from the better mineralization in a silicified zone that contained streaks of mixed pyrite, chalcopyrite, sphalerite and galena assayed 212.5 grams per tonne silver, 1.6 per cent copper, 11 per cent lead, 16.5 per cent zinc and 0.68 grams per tonne gold (Minister of Mines Annual Report 1937, page F26).

Past work included open cuts and trenching.

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FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

drilled in 10 holes, near the War Eagle adit. The option was terminated in 1980 and between 1981 and 1982, International Maggie Mines Ltd. completed an additional 37 drillholes, totalling 4500 metres. In 1983, the Slumach vein was discovered 1 kilometre southeast of the War Eagle adit, a followup of several soil anomalies. A 55-metre crosscut, a raise and an 18-metre drift were driven but mineable widths of mineralization were not intersected. Minnova Inc. entered into an option agreement in 1987 and began exploring the area for volcanogenic massive sulphide deposits. In 1989, two drillholes were drilled to test several induced polarization conductors.

The War Eagle area occurs on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp. The Britannia-Indian River pendant is mainly a calcalkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been assigned to the Lower Cretaceous Gambier Group. Jurassic to Cretaceous Coast Plutonic Complex intrusions surround portions of the stratified rocks creating screens or pendants; these bodies are oriented northwesterly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dikes and sills intrude both the pendant and plutonic rocks.

The occurrence area is underlain by rocks of the lower Gambier Group. A basal sequence, at least 350 metres thick, consists of a north striking succession of felsic flows interbedded with shales, tuff breccia and lapilli tuff. Dips are steeply west and east. The top of this sequence is truncated by granodiorite which serves as a partition from six major overlying units that form a continuous stratigraphic package at least 2.5 kilometres thick. This succession dips moderately south-southwest and are described from oldest to youngest. Unit 1, with a minimum thickness of 25 metres, consists of lower intermediate tuffs and flows comprised of dark green, massive andesitic to dacitic tuffs with minor intermediate flows. Unit 2 consists of felsic tuffs, flows and sedimentary interbeds lying conformably above Unit 1 and comprises a 750 metre thick felsic tuffaceous succession with argillite and chert beds. Numerous cycles of explosive volcanism are indicated by the repeated layers of coarse tuff breccia with fragments up to tens of centimetres across. The middle of this unit is dominated by numerous shale and tuffaceous chert horizons. The rhyolite breccia at the War Eagle adit is at the stratigraphic top of these sediments. The hornfelsed upper part of Unit 2 hosts the Slumach gold zone (092GNW036). Massive intermediate to mafic flows (Unit 3) form resistant bluffs and comprise massive, dark green intermediate flows that total 150 metres in thickness. Felsic tuffs, sediments and intermediate interbeds (Unit 4) conformably overlie the massive flows of Unit 3. A thick felsic tuffaceous series with several intermediate interbeds has a total thickness varying from a minimum of 150 metres to over 650 metres. The lithology consists generally of thin to massive beds of ash to lapilli tuff interlayered with thin shale or greywacke beds. Extensive intermediate to mafic volcanic units interfinger with the above felsic rocks and consist of hornblende and pyroxene porphyritic mafic flows. Massive volcanics (Unit 5) consist of intermediate tuffs and flows and interbedded felsic tuffs and fine ash beds. Upper felsic tuffs and overlying undifferentiated units (Unit 6) conformably overlie Unit 5.

Three major types of Coast Plutonic Complex intrusive bodies intrude the volcano-sedimentary sequence: a diorite pluton, the Early Cretaceous Squamish granodiorite pluton and several small quartz feldspar porphyritic rhyodacite bodies. Locally the diorite is strongly foliated and metamorphosed up to the lower amphibolite facies near the contact with the granodiorite. The Squamish pluton often has faulted contacts where it intrudes the earlier diorite. The porphyritic rhyodacite intrusions are small massive dikes and bodies that intrude the plutons. Garibaldi Group basaltic dikes intrude the Gambier Group rocks and plutonic bodies.

The entire Britannia-Indian River pendant exhibits lower greenschist facies regional metamorphism that has little effect on the felsic units but renders the units of intermediate composition massive and difficult to distinguish as tuffs or flows. A common alteration mineral assemblage includes chlorite-epidote-quartz-sericite plus or minus zeolites. Lower amphibolite grade metamorphism within the diorite pluton is evident peripheral to the Squamish granodiorite. The Squamish granodiorite pluton has been dated as Early Cretaceous (114 Ma +/- 40 Ma) using a two-point rubidium-strontium isochron (Fieldwork 1987). Contact metamorphic hornfels is widespread in mineralized areas peripheral to the plutons. Pervasive purplish brown secondary biotite development is often accompanied by silicification and chloritization. The hornfels

CAPSULE GEOLOGY

is easily distinguished in hand specimen by pale brown, ovoid porphyroblasts (cordierite with quartz) with a dark brown biotitic groundmass.

West of the Indian River, bedding strikes northwest, dips southwest and shows numerous tops facing southwest. Near the War Eagle occurrence, bedding is flat to gently southwest dipping. East of the Indian River, bedding strikes northwest and dips steeply northeast. The dip reversal is interpreted as an anticline that is tilted to the northeast. A pervasive axial plane cleavage strikes northwest and dips steeply to the southwest. Cleavage and bedding attitudes in the west half of the Indian River valley indicate the axis of the anticline lies to the northeast and has a shallow northwest plunge. A second cleavage striking north and dipping moderately to the west is axial planar to minor folds with steep northwest plunging axes. Faults and shears generally strike north to northwest but northeast trending structures have also been mapped.

Mineralization at the War Eagle is comprised of a volcanogenic system with low-grade stratiform layers and some crosscutting stringer zones. The occurrence is on, or close to, the Indian River shear zone, a discontinuous zone of shearing that trends northwest along the Indian River valley. The mineralization is spatially related to a small conspicuous zone of rhyolite breccia that is postulated to be a vent trending west-northwest. Alteration includes silicification, biotite and locally very strong chloritization. Mineralization is locally present in argillaceous rocks, but the better mineralization is generally near the top of a flat-lying zone of silicified rhyolite tuff in the order of 50 to 70 metres thick. The zone is underlain by dacite and overlain by breccia. The mineralized zones contain 0.5 to 10 per cent disseminated pyrite and variable amounts of chalcopyrite, sphalerite and galena, commonly in crosscutting veinlets and fractures. Fine mineralized laminae are locally present. A second mineralized zone, with lower grade mineralization, occurs approximately 75 metres below the upper zone and is separated by altered dacite.

Work on the property is concentrated in the mineralized area where an adit has been driven. Adit 1 or Portal One is driven along a zone of shearing approximately 50 centimetres wide containing remobilized or stringer quartz-sulphide mineralization. The stringer sulphides are possibly remobilized from two flat-lying volcanoclastic horizons hosting subeconomic mineralization encountered at depth. High grade zones of anastomosing veins are evident underground and consist of irregular lenses and disseminations of pyrite, chalcopyrite, sphalerite and galena in a silicified, rebrecciated, intensely altered and biotitized gangue.

The best intercept from drilling assayed 1.28 per cent copper, 7.3 per cent zinc, 4.6 per cent lead and 22.96 grams per tonne silver over 1.2 metres (Assessment Report 9437). This mineralization is believed to be related to the mineralized shear zone in the adit and may be subparallel to it. In 1989, two drillholes, totalling 318.5 metres, were drilled on the War Eagle claim to test induced polarization conductors 400 and 700 metres southeast of the War Eagle, respectively. Sixteen drill core samples were analysed. The holes failed to intersect economic mineralization in a sequence of argillites, cherts and epiclastic dacitic ash flows with enriched zones of pyrite and pyrrhotite.

The War Eagle occurrence is located 1075 metres north of the Slumach zone or Portal Two area (092GNW036).

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DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GNW043**

NATIONAL MINERAL INVENTORY:

NAME(S): **SLIDE CREEK**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 40 56 N
LONGITUDE: 123 01 51 W
ELEVATION: 980 Metres

NORTHING: 5503300
EASTING: 497776

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralization exposed along logging road, 750 metres west of Raffuse Creek and 1 kilometre east of the summit of Mount Mulligan, 9.5 kilometres east from the town of Squamish (Assessment Report 7021).

COMMODITIES: Copper Zinc Lead Silver

MINERALS

SIGNIFICANT: Chalcopyrite Sphalerite Galena
ASSOCIATED: Silica
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive Shear
CLASSIFICATION: Volcanogenic Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Rhyolite
Rhyodacite Breccia
Rhyodacite Porphyry
Rhyodacite Tuff
Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1982
SAMPLE TYPE: Grab	
<u>COMMODITY</u>	<u>GRADE</u>
Silver	32.2000 Grams per tonne
Copper	0.4900 Per cent
Lead	3.0300 Per cent
Zinc	5.9000 Per cent

COMMENTS: Sample across 5 centimetres.
REFERENCE: Assessment Report 11121.

CAPSULE GEOLOGY

The Slide Creek area is on the eastern edge of the Britannia-Indian River pendant which hosts the volcanogenic deposits of the Britannia camp (092GNW003). The Britannia-Indian River pendant is mainly a calc-alkaline, subaqueous volcanic and sedimentary sequence of felsic to intermediate pyroclastics, flows, cherts, argillites and greywackes. The entire pendant has been classified as Gambier Group of Upper Jurassic to Lower Cretaceous age. Cenozoic to Mesozoic Coast Plutonic Complex intrusives surround portions of the stratified rocks creating screens or pendants. These bodies are oriented north-westerly throughout the Coast complex. Pliocene to Recent Garibaldi Group basaltic dykes and sills intrude both the pendant and plutonic rocks.

The Slide Creek occurrence is underlain by andesite, rhyolite and rhyodacite porphyries, tuffs and breccias of the Gambier Group, which are locally sheared into quartz sericite and quartz chlorite schist. Certain highly silicified sections of the shear zones carry

CAPSULE GEOLOGY

small amounts of chalcopyrite, sphalerite and galena. Locally, nearly massive chalcopyrite with smaller amounts of sphalerite and galena occur in discontinuous lenses. A grab sample from one of these zones assayed up to 0.49 per cent copper, 5.9 per cent zinc, 3.03 per cent lead and 32.2 grams per tonne silver over a 5 centimetre width (Assessment Report 11121).

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/31

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW044**

NATIONAL MINERAL INVENTORY:

NAME(S): **PHANTOM**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 52 06 N
LONGITUDE: 123 29 38 W
ELEVATION: 1016 Metres

NORTHING: 5524109
EASTING: 464508

LOCATION ACCURACY: Within 500M

COMMENTS: Drill hole collars just east of a small tributary to Clowhom River,
500 metres northeast of Phantom Lake, 27.5 kilometres west-northwest
from the village of Brackendale (Assessment Report 17676).

COMMODITIES: Copper

Gold

Rare Earths

MINERALS

SIGNIFICANT:	Pyrrhotite	Pyrite	Chalcopyrite	Monazite	
ASSOCIATED:	Biotite	Andalusite	Garnet	Quartz	Carbonate
ALTERATION:	Biotite	Andalusite	Garnet		
COMMENTS:	Hornfels.				
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Igneous-contact

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Hornfels Sediment/Sedimentary Rock
Hornfels
Biotite Hornfels
Andalusite Biotite Hornfels
Hornfels Amygdaloidal Andesite
Quartz Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Contact Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Hornfels
Greenschist

CAPSULE GEOLOGY

The Phantom occurrence is underlain by a northwest trending pendant of metavolcanic and metasedimentary rocks of the Lower Cretaceous Gambier Group surrounded by quartz diorite and granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex.

Recent drilling on the Phantom property has revealed that bedrock comprises hornfelsed metasedimentary and metavolcanic rocks. Contact metamorphism has produced biotite hornfels containing minor small garnets, spotted andalusite-biotite hornfels and hornfelsed amygdaloidal andesite. The hornfelsed sediments and andesite contain minor to moderate amounts of pyrrhotite, pyrite and chalcopyrite. The sulphides occur as fine grained disseminations throughout the hornfelsed units, as blebs on fracture surfaces and in thin, infrequent quartz-carbonate veinlets. A drilling program in 1982 intersected a 1.5 metre section which assayed up to 0.6 grams per tonne gold (Assessment Report 17676). Scanning electron microscope (SEM) analysis of the spotted andalusite-biotite hornfels discovered rare-earth bearing phosphate, probably monazite, occurring as tiny grains 2 to 4 microns long, showing concentrations of yttrium, gadolinium and possibly dysprosium (Assessment Report 17676).

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GSC MEM 158
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FIELD CHECK: N
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REPORT: RGEN0100

CAPSULE GEOLOGY

(Assessment Report 24036).

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GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW046**

NATIONAL MINERAL INVENTORY:

NAME(S): **ASH**, GOLD, PYKETT CREEK

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 56 53 N
LONGITUDE: 123 24 43 W
ELEVATION: 450 Metres

NORTHING: 5532937
EASTING: 470445

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the mouth of a southwest flowing stream that empties into Ashlu Creek (Minister of Mines Annual Report 1935, page F1). See Ashlu (092GNW013), a related occurrence, for complete description and references.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The area of the Ash occurrence is underlain by granodiorite of the Jurassic Cloudburst pluton of the Coast Plutonic Complex (Geological Survey of Canada Paper 90-1F). Andesites of the Lower Cretaceous Gambier Group may be related to the showing (Assessment Report 17889, Map 5). The showing is considered to be an extension of the same structure that hosts the Ashlu mine (092GNW013) which is located about 230 metres to the south.

A quartz vein, varying in width from 30 to 90 centimetres, is exposed for about 55 metres along the foot of a canyon wall in what used to be known as Pykett Creek. The vein is sparsely mineralized with iron sulphides. At about the centre of the exposure an adit has been driven for about 7.5 metres along strike. Gold values derived from samples are reported to be low. The vein is once again exposed for 2 metres about 138 metres upstream from the previous outcrop. Here, an adit 10 metres long is driven at 015 degrees along the strike of the vein. The quartz occurs as a vein up to 1 metre in width; stringers as well lenses also occur. The showings are well mineralized with irregular masses and streaks of pyrite and occasional chalcopyrite. Other exposures to the northeast are also reported.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/06

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW046**

MINFILE NUMBER: **092GNW047**

NATIONAL MINERAL INVENTORY:

NAME(S): **ICE**

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 57 49 N
LONGITUDE: 123 26 01 W
ELEVATION: 525 Metres

NORTHING: 5534675
EASTING: 468901

LOCATION ACCURACY: Within 1 KM

COMMENTS: On the Ice group of claims at the confluence of Pykett and Ashlu creeks (Assessment Report 7844).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz Magnetite Actinolite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

DIMENSION: STRIKE/DIP: 081/60 TREND/PLUNGE:

COMMENTS: Dominant mineralized shear attitude.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: Age is for Cloudburst pluton (GSC Paper 90-1F).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY:	Assay/analysis	YEAR:	1978
SAMPLE TYPE:	Chip		
COMMODITY	GRADE		
Silver	36.5500	Grams per tonne	
Gold	19.5800	Grams per tonne	

COMMENTS: A weighted average of three samples totalling 1.67 metres.

REFERENCE: Assessment Report 7844.

CAPSULE GEOLOGY

The area of the Ice occurrence is underlain by granodiorite of the Jurassic Cloudburst pluton of the Coast Plutonic Complex (Geological Survey of Canada Paper 90-1F). A major northwest trending shear zone of Cretaceous age, the Ashlu Creek shear zone, occurs to the immediate west. Mineralization is reported to occur in sheared fractures and in several types of veins.

The most spectacular mineralized vein is exposed in an open cut where a 17 centimetre wide quartz vein contains massive pyrite and massive chalcopyrite and assays up to 156.62 grams per tonne gold and 309.49 grams per tonne silver. Values up to 4.46 grams per tonne gold were obtained from chip samples taken from the granodiorite in the footwall and hangingwall of the vein. A weighted average of three samples gave values of 19.58 grams per tonne gold and 36.55 grams per tonne silver across a width of 1.67 metres (Assessment Report 7844).

Shear zones associated with a predominant fracture set striking 081 degrees and dipping 60 degrees north, commonly contain pyrite, chalcopyrite, quartz, magnetite and actinolite. The shears range in width from several centimetres up to 15 centimetres and have been traced along surface for up to 20 metres. Significant gold assays were derived from samples of these shear zones.

There are two short adits on the property that apparently date back to the early 1920's. Two tons of hand-sorted ore reportedly

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RUN TIME: 09:30:14

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ENERGY AND MINERALS DIVISION

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REPORT: RGEN0100

CAPSULE GEOLOGY

contained 171.43 grams per tonne gold (Assessment Report 7844).

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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/07

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW048**

NATIONAL MINERAL INVENTORY:

NAME(S): **SN, SEEL**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 37 20 N
LONGITUDE: 123 50 53 W
ELEVATION: 125 Metres

NORTHING: 5496974
EASTING: 438748

LOCATION ACCURACY: Within 500M

COMMENTS: Drill hole E (Assessment Report 9591, Fig. 1).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Molybdenite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Clay Silica
ALTERATION TYPE: Argillic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Porphyry Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core

YEAR: 1981

COMMODITY	GRADE	
Copper	0.1100	Per cent
Molybdenum	0.0120	Per cent

COMMENTS: Sample over 2.8 metres drill hole E.
REFERENCE: Assessment Report 9519.

CAPSULE GEOLOGY

Copper and molybdenum mineralization outcrops on the east shore of Sechelt Peninsula, 13 kilometres north-northeast of Halfmoon Bay.

The SN showing is hosted in equigranular, medium-grained diorite of Upper Jurassic age, within the Jurassic to Tertiary Coast Plutonic Complex. The diorite locally exhibits moderate to intense argillic alteration and silicification.

Pyrite and molybdenite occur in surface exposures as blebs and disseminations in a quartz vein stockwork and in the host diorite. Pyrite also occurs in massive pods in quartz veins and in fracture-fillings in the diorite. Diamond drilling encountered molybdenite, chalcopyrite and pyrite confined largely to zones of altered diorite. One section of extremely altered diorite containing blebs of pyrite and molybdenite accompanied by pyritic fractures assayed 0.012 per cent molybdenum and 0.11 per cent copper between 21.0 and 23.8 metres depth (Assessment Report 9519, page 3, Hole E)

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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ENERGY AND MINERALS DIVISION

PAGE: 173
REPORT: RGEN0100

BIBLIOGRAPHY

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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/04

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW049**

NATIONAL MINERAL INVENTORY:

NAME(S): **LLAMA**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 19 N
LONGITUDE: 123 28 19 W
ELEVATION: 762 Metres

NORTHING: 5520794
EASTING: 466064

LOCATION ACCURACY: Within 500M

COMMENTS: Outcrop of vein 2.5 kilometres north of the summit of Phantom Mountain, 1 kilometre south of Phantom Lake, 24.5 kilometres west-northwest from the village of Brackendale (Assessment Report 11729).

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
COMMENTS: Sulphide vein.
ASSOCIATED: Silica Biotite
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stratabound
CLASSIFICATION: Volcanogenic

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Meta Siltstone
Felsic Tuff
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: VEIN REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Chip

COMMODITY	GRADE	
Silver	10.2800	Grams per tonne
Gold	6.9200	Grams per tonne
Copper	3.2000	Per cent

COMMENTS: Sample of sulphide vein.
REFERENCE: Assessment Report 11729.

CAPSULE GEOLOGY

The Llama occurrence is underlain by a small, northwest trending and moderate southwest dipping roof pendant of Lower Cretaceous Gambier Group volcano-sedimentary rocks surrounded by granodiorite of the Cenozoic-Mesozoic Coast Plutonic Complex. Mixed siliceous siltstones and felsic tuff have undergone strong metamorphism obliterating most primary textures and giving the rocks a quartzitic to gneissic appearance. The rocks are dominantly quartzose and have been silicified.

Mineralization consists of finely laminated pyrite hosted by the metasedimentary rocks. The pyrite occurs with biotite as streaks and veinlets usually parallel to bedding within an oxidized (gossan) zone. At the showing, a 20 metre long by 0.2 metre wide vein of massive pyrite-chalcopyrite-biotite occurs parallel to bedding and thins out to a 1 to 2 centimetre thick band of weakly pyritic siltstone to the northwest but remains open to the southeast. The vein is located in non-pyritic siltstone beyond the southwest limit of the gossan zone. A chip sample of the vein assayed 3.2 per cent copper, 6.92 grams per tonne gold and 10.28 grams per tonne silver (Assessment Report 11729).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 175
REPORT: RGEN0100

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/07

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW050**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUBY, NL, NORTH LAKE,
TY, CHALICE, WALLY,
HD, BACON, WINDANCER,
TAJ**

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G13W 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 45 02 N
LONGITUDE: 123 58 27 W
ELEVATION: 45 Metres

NORTHING: 5511352
EASTING: 429824

LOCATION ACCURACY: Within 500M

COMMENTS: Drillhole 9 in NL zone (Assessment Report 14736, Fig. A1-1).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Marcasite Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Silica
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Epithermal Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: 30 x 1 Metres STRIKE/DIP: 050/65N TREND/PLUNGE:
COMMENTS: Main vein in NL zone.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: Plutonic rocks in the vicinity have been dated as Late Jurassic.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1982
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 54.5000 Grams per tonne
Gold 50.3900 Grams per tonne
COMMENTS: Sample along 1.8 metre length; sample R-NL-X-5.
REFERENCE: Assessment Report 11129.

ORE ZONE: TRENCH REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1995
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 4.4600 Grams per tonne
Gold 2.8100 Grams per tonne
COMMENTS: Grab sample 5WJR-2, taken from the NL-HW (hangingwall) vein where the
main vein splits near Highway 101.
REFERENCE: Assessment Report 24069.

CAPSULE GEOLOGY

The NL showing outcrops along Highway 101, 300 metres northeast of the west end of North Lake on Sechelt Peninsula.

A roadcut along the highway reveals a vein (NL zone) hosted in granodiorite within the Jurassic to Cretaceous Coast Plutonic Complex. The vein strikes 045 to 050 degrees for an exposed length of 30 metres and dips 65 degrees north. The vein varies up to 0.27 metre in width. Diamond drilling indicates the vein continues down dip for at least 55 metres. Six subsidiary tension veins ranging

CAPSULE GEOLOGY

from 3 to 15 centimetres in width are developed in the granodiorite along the northwest side of the main vein over a distance of 20 metres. The tension veins strike 080 to 100 degrees for up to 8 metres and dip 65 degrees north.

The veins are comprised of marcasite in a gangue of quartz. A chip sample of the main vein taken across a width of 0.46 metre assayed 23.6 grams per tonne gold and 40.1 grams per tonne silver, while a sample of a tension vein taken over a length of 1.8 metres assayed 50.39 grams per tonne gold and 54.5 grams per tonne silver (Assessment Report 11129, page 24; Samples R-NL-1, R-NL-X-5). An angled diamond-drillhole (DDH-10) cored a 0.91 metre section grading 37.0 grams per tonne gold and 27.5 grams per tonne silver (Assessment Report 14736, page 20).

In 1995, a sample was taken from a shallow trench exposing the North Lake FW vein near Highway 101 where the vein splits into hangingwall (HW) and footwall (FW) portions separated by 61 centimetres of barren granodiorite. Grab sample 5WJR-1 yielded 1.41 grams per tonne gold and 15.77 grams per tonne silver (Assessment Report 24069). A grab sample (5WJR-2) of the HW vein from the same general location yielded 2.81 grams per tonne gold and 4.46 grams per tonne silver (Assessment Report 24069).

A silicified shear zone (TY zone) striking 110 degrees and dipping steeply north, outcrops 240 metres northeast of the NL zone. Quartz veins ranging from 20 to 50 centimetres in width are developed in the hangingwall of the shear. The veins are mineralized with pyrite and minor chalcopyrite. Grab samples have yielded assays of up to 6.99 grams per tonne gold and 175.5 grams per tonne silver (Assessment Report 14736, page 21).

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IPDM Feb.-March 1985; May-June 1985
WWW <http://www.infomine.com/>
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DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW051**

NATIONAL MINERAL INVENTORY:

NAME(S): **RED TUSK**, SILVER TUSK, NORTH,
 SOUTH, MAVIS, CIRQUE,
 NORTH EXTENSION, SILVER SPIDER, GOSSANOUS ISLAND

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092G14W
 BC MAP:
 LATITUDE: 49 46 07 N
 LONGITUDE: 123 19 09 W
 ELEVATION: 1036 Metres
 LOCATION ACCURACY: Within 500M

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5512953
 EASTING: 477017

COMMENTS: South zone, 1 kilometre southwest of the summit of Lydia Mountain, in the Tantalus Range, 600 metres north of Red Tusk Creek, 12 kilometres west from the village of Brackendale (Assessment Report 18615).

COMMODITIES: Copper Zinc Lead Silver Gold

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite
 ASSOCIATED: Quartz Silica Barite Pyrrhotite
 ALTERATION: Silica Sericite Chlorite
 ALTERATION TYPE: Silicific'n Sericitic
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stockwork Massive Podiform
 CLASSIFICATION: Volcanogenic Exhalative Epigenetic
 TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Altered Siliceous Rhyolite
 Rhyolite Breccia
 Rhyolite Tuff
 Andesite
 Dacite
 Rhyodacite
 Andesite Breccia
 Polymictic Volcanic Breccia
 Chert
 Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
 TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: MAVIS REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1988
 SAMPLE TYPE: Rock

COMMODITY	GRADE	
Silver	73.3500	Grams per tonne
Gold	1.3300	Grams per tonne
Copper	3.8700	Per cent
Lead	1.1200	Per cent
Zinc	2.5600	Per cent

COMMENTS: Sample of semi-massive to massive sulphides.
 REFERENCE: Assessment Report 18615.

CAPSULE GEOLOGY

Intermediate to felsic volcanics occupy the central portion of the property. The rocks are dacite to rhyodacite in composition and include flows, gritty lapilli tuffs and finely laminated ash tuffs. A fragmental volcanic rock unit (polymictic volcanic breccia) occurs and is composed of crowded, angular to sub-angular, mixed pebble to cobble size clasts of tuffs, flows, chert and argillite in a fine grained dusty matrix. This unit generally overlies two thin units of andesite agglomerate and tuff which in turn overlies andesite flows.

Mineralization on the Red Tusk property is associated with the altered siliceous rhyolite horizon which varies from 30 to 100 metres in width and is 2000 metres long. The North, South and North Extension zones occur within this unit.

The North zone is a 350 metre long segment of this horizon with a width of 40 metres. Mineralization is found in a barite-rich section of altered, siliceous, pyritic rhyolite, rhyolite breccia and in highly chloritized andesite. A sulphide assemblage of pyrite, chalcopyrite, sphalerite and galena is generally confined to fractures and vein-like structures. A smaller sub-zone, the Silver Spider, is 6 to 8 metres wide and 100 metres long and consists of a steeply dipping barite-rich rhyolite. Grab samples from here assayed 0.12 per cent copper, 20.06 per cent zinc, 17.89 per cent lead, 5694.59 grams per tonne silver and 15.28 grams per tonne gold (Assessment Report 18615).

The South zone, 800 metres south of the North zone, contains several subparallel north trending faults that have apparently offset and repeated the siliceous rhyolite unit. Altered, bleached white rock with micro-quartz veining in siliceous rhyolite flows have been faulted and shuffled producing a sequence of north trending slivers of altered and unaltered rocks stacked in an east-west direction. Some sericitic alteration of the rhyolite has left it with a greenish cast. Grab samples from a steeply dipping, silicified rhyolite tuff assayed up to 14.32 grams per tonne gold (Assessment Report 18615).

The North Extension zone is located 500 metres north of the North zone and is underlain by gossanous andesitic to dacitic volcanics. A rock sample from this area assayed 310.1 grams per tonne silver, 1.68 grams per tonne gold and 0.1 per cent lead.

The Mavis zone is 500 metres east of the South zone and is underlain by andesitic flows, agglomerates or breccias and argillites. A mineralized zone trends northeast through the andesitic stratigraphy and is up to 3 metres wide and 100 metres long, and contains disseminations and pods of semi-massive to massive sphalerite-chalcopyrite-galena. Rock samples assayed up to 3.87 per cent copper, 2.56 per cent zinc, 1.12 per cent lead, 73.35 grams per tonne silver and 1.33 grams per tonne gold (Assessment Report 18615).

The Cirque zone is located 900 metres east of the Mavis zone and is underlain by a sequence of andesite, rhyolite and argillite. Massive pods of sphalerite-chalcopyrite-galena occur in andesite. Chip samples from a trench excavated on the Gossanous Island zone, a subzone of the Cirque zone, assayed up to 1.47 per cent copper, 7.63 per cent zinc, 1.74 per cent lead, 77.13 grams per tonne silver and 0.4 grams per tonne gold (Assessment Report 18615).

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GSC MEM 158
GSC OF 611
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/06/07

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW052**

NATIONAL MINERAL INVENTORY:

NAME(S): **MINERAL HILL**, SNAKE BAY, SECHELT

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G12W

BC MAP:

LATITUDE: 49 30 55 N

LONGITUDE: 123 49 04 W

ELEVATION: 268 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Drill hole 88-4, 1.5 kilometres west of Snake Bay, Goldsmith, 1988.

UTM ZONE: 10 (NAD 83)

NORTHING: 5485061

EASTING: 440805

COMMODITIES: Limestone Wollastonite

MINERALS

SIGNIFICANT: Calcite Wollastonite Garnet

ASSOCIATED: Diopside Epidote Quartz Tremolite Pyrite

Chalcopyrite Sphalerite

COMMENTS: Rare sulphides.

ALTERATION: Garnet Diopside Epidote Wollastonite Quartz

Tremolite

ALTERATION TYPE: Skarn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Concordant Layered Massive

CLASSIFICATION: Skarn Industrial Min.

TYPE: K09 Wollastonite skarn R09 Limestone

DIMENSION: 500 x 180 Metres STRIKE/DIP:

COMMENTS: Roof pendant trends north for 500 metres and is up to 180 metres wide.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Skarn
Calc-silicate
Diorite
Dike

HOSTROCK COMMENTS: Mineralization is hosted in a roof pendant comprised of metasediments of unknown affinity, possibly Vancouver Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks Wrangell

METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization

GRADE:

COMMENTS: Contained within a roof pendant in the Coast Plutonic Complex.

INVENTORY

ORE ZONE: MINERAL HILL REPORT ON: Y

CATEGORY: Probable YEAR: 1988

QUANTITY: 291000 Tonnes

COMMODITY: Wollastonite GRADE: 50.0000 Per cent

COMMENTS: Central zone; the grade is up to 50 per cent (Z.D. Hora, personal communication, 1991).

REFERENCE: Goldsmith, L.B. and Kallock, P., 1988.

CAPSULE GEOLOGY

The Mineral Hill deposit is located on the Sechelt Peninsula, 1.5 kilometres west of Snake Bay and 60 kilometres west-northwest of Vancouver.

The wollastonite deposit is hosted within a roof pendant of calcareous metasediments, possibly of the Upper Triassic Vancouver Group (Quatsino or Karmutsen formations). The pendant occurs in Upper Jurassic diorite of the Jurassic to Tertiary Coast Plutonic Complex. The roof pendant trends north for 500 metres and varies up to 180 metres in width. The metasediments generally strike northeast and dip moderately to steeply west.

CAPSULE GEOLOGY

The roof pendant is comprised mostly of limestone and banded skarn. Thinly-bedded, light and dark grey, fine to medium grained limestone, outcrops in the northern half of the roof pendant. The limestone, locally massive and coarse grained, is occasionally contaminated by siliceous layers. These siliceous layers contain calcite, garnet, quartz and wollastonite that are commonly boudinaged or brecciated. The limestone is reported to average 90 to 92 per cent CaCO₃ and a sample of white limestone displayed a brightness of 96 per cent (R. Reipe, personal communication, 1989). A composite sample of limestone taken from a 10.34 metre section of core assayed 51.79 per cent CaCO₃, 0.42 per cent MgO, 8.80 per cent SiO₂, 0.41 per cent Al₂O₃, 0.50 per cent Fe₂O₃ and 35.39 per cent ignition loss (Industrial Mineral File - Goldsmith and Kallock, 1988).

Variably striped, maroon, green, yellowish white and brown to black skarn containing diopside, epidote and wollastonite with rare pyrite, chalcopyrite and sphalerite, outcrops throughout most of the roof pendant. The roof pendant and the enclosing diorite are intruded by aphanitic, greenish black to black dykes that strike west to southwest and dip 65 to 90 degrees northwest.

Wollastonite is developed near the eastern margin of the roof pendant over most of its length. Wollastonite occurs in the following three forms: (1) in layers up to 0.08 metre thick alternating with garnet in banded skarn, (2) as a very fine replacement of siliceous layers and inclusions in limestone that comprise up to 35 per cent of the rock, and (3) in thinly laminated calcium silicate rock comprised of layers of coarse crystalline, light brown wollastonite alternating with layers of dense, green coloured wollastonite, tremolite(?) and other calcium silicates, excluding garnet.

Drilling has defined a north trending zone of wollastonite mineralization extending continuously, for up to 150 metres in length, in the northern half of the roof pendant. The zone contains probable reserves of 291,000 tonnes of wollastonite assessed to a vertical depth of 100 metres (Property File - Goldsmith and Kallock, 1988). The grade is up to 50 per cent wollastonite (Z.D. Hora, personal communication, 1991). Significant wollastonite of undetermined continuity was encountered south of this zone.

This deposit was initially explored for wollastonite by Tri-Sil Minerals Ltd. in 1987 and 1988. Sixteen holes were drilled for a total of 1719.53 metres. Since November 1989, the company has been quarrying limestone for agricultural purposes. The deposit has also been investigated as a source of white limestone for use as calcium carbonate filler. Since 1991, wollastonite has been quarried and shipped to the Tilbury Cement Plant in Delta, B.C. for use as cement additive (Z.D. Hora, personal communication, 1991).

Clearview Mineral Resources Corp. drill tested mineralization exposed on surface between the Mine and Skidder zones during February 2002.

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- EMPR OF *1991-17; 1992-1; 1992-9; 1994-1
- EMPR PF (Sechelt Wollastonite Project, Review of Findings, Tri-Sil Minerals, Oct. 9, 1987; Report on Laboratory Testing, Oct. 1987; Progress Report Memorandum from R.B. Anderson, August 1987; Letters from R.O. McElroy, re: Wollastonite Beneficiation Testwork, Oct. 1987 and March 1988; Project Report for Canamin Resources by R.O. McElroy, March 1988; Preliminary Metallurgical Investigation of Garnet Ore, prepared for Tri-Sil Minerals Inc., by Bacon, Donaldson & Associates Ltd., Oct. 11, 1988)
- GSC MAP 42-1963; 1069A; 1386A
- GSC OF 611
- GSC P 69-25
- GCNL #128, 1985
- PR REL Clearview Mineral Resources Corp., Nov. 22, 2002; Mar. 13, 2003
- WWW <http://www.infomine.com/>
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- Goldsmith, L.B. and Kallock, P. (1988): Geological Mapping, Diamond Drilling & Reserve Estimates of Wollastonite Deposit, Mineral Hill Claim Group, Sechelt Area, B.C.
- Goldsmith, L.B. and Logan, J.M. (1987): Geological Mapping & Diamond Drilling of Wollastonite Occurrence, Mineral Hill Claim Group,

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 183
REPORT: RGEN0100

BIBLIOGRAPHY

Sechelt Area, B.C.)

DATE CODED: 1988/11/21
DATE REVISED: 1990/01/29

CODED BY: GWV
REVISED BY: PSF

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092GNW053**

NATIONAL MINERAL INVENTORY:

NAME(S): **WORMY LAKE**, SECHELT

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 31 52 N
LONGITUDE: 123 50 12 W
ELEVATION: 300 Metres

NORTHING: 5486836
EASTING: 439458

LOCATION ACCURACY: Within 500M

COMMENTS: Skarn at the northeast end of Wormy Lake (Fieldwork, 1988 page 493).

COMMODITIES: Wollastonite

MINERALS

SIGNIFICANT: Wollastonite
ASSOCIATED: Diopside Epidote Pyrite Chalcopyrite
COMMENTS: Minor sulphides.
ALTERATION: Garnet Diopside Epidote Wollastonite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Layered Massive
CLASSIFICATION: Skarn Industrial Min.
TYPE: K09 Wollastonite skarn
DIMENSION: 600 Metres STRIKE/DIP:
COMMENTS: Bedding strikes west to northwest and dips 30 to 81 degrees north.
Dimension of the area of skarn outcrops. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Banded Skarn
Garnetite
Limestone
Diorite

HOSTROCK COMMENTS: The mineralization is hosted in a roof pendant of metasediments of unknown affinity.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact
COMMENTS: Contained within a roof pendant in the Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
Wrangell
RELATIONSHIP: Syn-mineralization
GRADE:

CAPSULE GEOLOGY

The Wormy Lake occurrence is located on the Sechelt Peninsula, 3.5 kilometres northwest of Snake Bay. The deposit is situated approximately 2 kilometres northwest of the Snake Bay occurrence (092GNW052).

The occurrence is hosted in a roof pendant of calcareous meta-sediments, possibly of the Upper Triassic Vancouver Group (Quatsino or Karmutsen formations). The pendant occurs in diorite of the Jurassic to Cretaceous Coast Plutonic Complex (Late Jurassic in this area). Bedding in the metasediments, near the southeast end of Wormy Lake, strikes west to northwest and dips 30 to 81 degrees north.

In the vicinity of Wormy Lake, the roof pendant consists mainly of banded white, green, grey to brownish black skarn comprised of garnet, diopside, epidote with minor pyrite and chalcopyrite. Black or brown, fine-grained garnetite and light to dark grey, thinly laminated to massive limestone occur to a lesser extent. Wollastonite is contained primarily in the banded skarn. Only minor amounts of wollastonite are contained in the limestone and garnetite. The wollastonite outcrops intermittently over a distance of 600 metres.

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EM EXPL 2002-29-40
EMPR FIELDWORK *1988, pp. 489-493
EMPR OF *1991-17

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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PAGE: 185
REPORT: RGEN0100

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EMPR PF (Preliminary Metallurgical Investigation of Garnet Ore,
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Associates Ltd., Oct. 11, 1988 (in 092GNW052 - Mineral Hill))
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
GSC P 69-25
GCNL #38, 1989
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1988/11/21
DATE REVISED: 1990/01/29

CODED BY: GVW
REVISED BY: PSF

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092GNW054**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAMBRIAN CHIEFTAN DOLOMITE**

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 40 50 N
LONGITUDE: 123 56 20 W
ELEVATION: 991 Metres

NORTHING: 5503538
EASTING: 432268

LOCATION ACCURACY: Within 500M

COMMENTS: Located centred on largest dolomite outcrop at the crest of a small north trending ridge, as shown in Annual Report 1950, figure 6.

COMMODITIES: Dolomite Limestone

MINERALS

SIGNIFICANT: Dolomite Calcite

ASSOCIATED: Epidote Pyrite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Replacement Industrial Min.

TYPE: R09 Limestone

DIMENSION: 311 x 30 Metres STRIKE/DIP:

COMMENTS: Dips vertical to steeply east. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Upper Jurassic

GROUP

Vancouver
Vancouver

FORMATION

Karmutsen
Quatsino

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Dolomite
Limestone
Basaltic Flow
Chert
Argillite
Quartz Diorite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Wrangell

METAMORPHIC TYPE: Contact

COMMENTS: Situated within a roof pendant in the southern Coast Plutonic Complex.

Plutonic Rocks

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE:

INVENTORY

ORE ZONE: LENS

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1956

SAMPLE TYPE: Grab

COMMODITY

GRADE

Dolomite 19.8000 Per cent

COMMENTS: Average of nine 4.5 kilogram samples. Grade given for MgO.

REFERENCE: Bulletin 39, page 17.

CAPSULE GEOLOGY

This occurrence is located 8.3 kilometres northeast of the community of Garden Bay, near the old Cambrian Chieftan Mine (092GNW011), on the Sechelt Peninsula.

A dolomite lens lies in a northwest trending inclusion of Upper Triassic Vancouver Group (Karmutsen and/or Quatsino Formation(?)) volcanics and sediments within diorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex (in this area Late Jurassic). Locally, the inclusion contains lenticular masses of dolomite and limestone with minor chert and argillite intercalated with basaltic flows. These beds strike due north and dip vertical to steeply east. They are cut by few vertical dipping andesitic and dioritic, porphyritic dykes that commonly strike 140 degrees.

The dolomite lens is at least 311 metres long and up to 37 wide on surface, averaging 30 metres in exposed width. The lens is composed of white to grey coloured, mottled, crystalline dolomite

CAPSULE GEOLOGY

containing epidote and calcite veinlets and sparse pyrite grains. Nine 4.5 kilogram samples randomly collected over the dolomite lens assayed 18.8 to 21.1 per cent MgO, with an average MgO content of 19.8 per cent (Bulletin 39, page 17). Six of these samples displayed the following percentage range of values (Bulletin 39, page 39):

CaO:	30.6 - 33.1
MgO:	18.8 - 21.7
SiO2:	2.9 - 5.1
R2O3:	0.4 - 0.9
Fe2O3:	0.4 - 0.6
Ignition loss:	41.9 - 45.1

A mass of thinly bedded, white to grey crystalline limestone outcrops just west of the dolomite lens. The north end hosts magnetite-chalcopyrite skarn zones that were sporadically mined, such as the Cambrian Chieftan deposit (092GNW011).

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DATE CODED: 1989/07/20
DATE REVISED: 1990/01/06

CODED BY: PSF
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW055**

NATIONAL MINERAL INVENTORY:

NAME(S): **TROY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 55 52 N
LONGITUDE: 123 21 54 W
ELEVATION: 440 Metres

NORTHING: 5531035
EASTING: 473804

LOCATION ACCURACY: Within 500M

COMMENTS: Located 400 metres south of Ashlu Creek, from a point 6.5 kilometres from its confluence with Squamish River.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Meta Diorite
Granodiorite

HOSTROCK COMMENTS: Cloudburst pluton dated as Jurassic (Geological Survey of Canada Paper 90-1F, pages 95-107).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core

YEAR: 1985

COMMODITY

GRADE

Gold

0.9300

Grams per tonne

COMMENTS: From a 0.3 metre drill interval.

REFERENCE: Assessment Report 13873.

CAPSULE GEOLOGY

The area of the Troy occurrence is underlain by granodiorite and quartz diorite of the Jurassic Cloudburst pluton of the Coast Plutonic Complex (Geological Survey of Canada Paper 90-1F). A major northwest trending shear zone of Cretaceous age, the Ashlu Creek shear zone, cuts the country rock.

Four diamond-drill holes were drilled to investigate the contact between metadiorite and underlying quartz diorite. The contact was observed on the surface about 40 metres upslope to the southwest of the drill collars, and is marked by closely spaced limonite-coated fractures with minor quartz veins. The zone appears to strike northwest and, as indicated by drill results, is steeply dipping. No significant mineralization was noted within any of the core. One fractured and oxidized zone at 21 metres depth was sampled over 0.3 metres and assayed 0.93 grams per tonne gold (Assessment Report 13873).

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

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DATE CODED: 1987/12/21
DATE REVISED: 1990/06/07

CODED BY: AE
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW056**

NATIONAL MINERAL INVENTORY:

NAME(S): **TRINITY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 33 52 N
LONGITUDE: 123 59 19 W
ELEVATION: 146 Metres

NORTHING: 5490675
EASTING: 428512

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on Trinity claim group.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

At the Trinity showing, pyrite and chalcopyrite mineralization is exposed over a 60 by 60 metre area along a road cut 100 metres east of Highway 101, 5.8 kilometres north-northeast of the head of Pender Harbour on the Sechelt Peninsula. The mineralization is hosted in a roof pendant of basalts and andesites of the Upper Triassic Karmutsen Formation (Vancouver Group) engulfed in diorite and granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

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EMPR ASS RPT 9949
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GSC OF 611
GSC P 90-1F, pp. 95-101
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/04
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW057**

NATIONAL MINERAL INVENTORY:

NAME(S): **CLARE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 09 N
LONGITUDE: 123 17 01 W
ELEVATION: 670 Metres

NORTHING: 5498181
EASTING: 479521

LOCATION ACCURACY: Within 500M

COMMENTS: Sample location on the northeast slopes of Mount Ellesmere, just south of a major unnamed tributary to Foulger Creek. Located on the west side of Howe Sound, 4 kilometres south-southwest from the pulp mill at Woodfibre (Assessment Report 15333).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Gabbro
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY
Copper

YEAR: 1986

GRADE
0.4900 Per cent

REFERENCE: Assessment Report 15333.

CAPSULE GEOLOGY

The Clare occurrence is underlain by quartz diorite of the Cenozoic-Mesozoic Coast Plutonic Complex with gabbro and related ultramafic phases also present.

Sulphides comprised of predominant pyrite and occasional pyrrhotite and chalcopyrite occur sporadically as patches of disseminations or blebs within gabbro. A grab sample assayed 0.49 per cent copper (Assessment Report 15333).

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GSC MAP 42-1963; 1386A
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/05
DATE REVISED: / /

CODED BY: GO
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW058**

NATIONAL MINERAL INVENTORY:

NAME(S): **FOULGER CREEK**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 55 N
LONGITUDE: 123 16 42 W
ELEVATION: 457 Metres

NORTHING: 5499600
EASTING: 479908

LOCATION ACCURACY: Within 500M

COMMENTS: Quartz vein outcrop in creek gully 250 metres south of Foulger Creek.
Located on the west side of Howe Sound, 2.5 kilometres south-southwest
from the pulp mill at Woodfibre (Assessment Report 288).

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION:
COMMENTS: Quartz vein. STRIKE/DIP: 105/45S TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks Gambier
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area is predominantly underlain by quartz diorite of the Cenozoic-Mesozoic Coast Plutonic Complex which contains a small pendant of Lower Cretaceous Gambier Group volcano-sedimentary rocks. The Foulger Creek showing is underlain by quartz diorite of the Coast Plutonic Complex. A small quartz vein occurs close to, and appears to be cut off by a fault. The vein is mineralized with molybdenite and pyrite and strikes 105 degrees with 45 degree dip to the south. Other small quartz veins and aplite dykes are also evident and are cut off by the fault.

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GSC MAP 42-1963; 1386A
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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/05
DATE REVISED: / /

CODED BY: GO
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW059**

NATIONAL MINERAL INVENTORY:

NAME(S): **EDDY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 24 N
LONGITUDE: 123 57 39 W
ELEVATION: 213 Metres

NORTHING: 5504608
EASTING: 430699

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on area of mineralization (Assessment Report 3757, Map 2).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown
DIMENSION: 60 x 60 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Area of mineralization.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Basalt
Andesite
Diorite
Granodiorite

HOSTROCK COMMENTS: Plutonic rocks in the vicinity have been dated as Late Jurassic.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact
COMMENTS: Hosted in a roof pendant in the southern Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The Eddy showing is located along a roadcut 100 metres east of Highway 101, 5.8 kilometres north-northeast of the head of Pender Harbour on the Sechelt Peninsula.

At the Eddy showing, pyrite and chalcopyrite mineralization is exposed over a 60 by 60 metre area. The mineralization is hosted in a roof pendant of basalts and andesites of the Upper Triassic Karmutsen Formation, Vancouver Group. The roof pendant is surrounded by diorite and granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex.

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DATE CODED: 1990/06/05
DATE REVISED: 1997/07/30

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW060**

NATIONAL MINERAL INVENTORY:

NAME(S): **BACON**, RUBY LAKE

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 43 51 N
LONGITUDE: 123 59 26 W
ELEVATION: 52 Metres

NORTHING: 5509175
EASTING: 428615

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on area of mineralization along Highway 101 (Assessment Report 11333).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Pyrrhotite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 0250 Metres

STRIKE/DIP: 040/75W

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Upper Jurassic

GROUP
Vancouver

FORMATION
Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Mafic Flow
Mafic Tuff
Chert
Epidote Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Wrangell

METAMORPHIC TYPE: Contact

COMMENTS: Hosted in a roof pendant in the Coast Plutonic Complex.

Plutonic Rocks

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Grab

COMMODITY

Copper

GRADE

0.5100

Per cent

REFERENCE: Assessment Report 11333.

CAPSULE GEOLOGY

Copper mineralization is exposed for 250 metres along Highway 101, on the east side of Ruby Lake of the Sechelt Peninsula.

The Bacon showing is hosted in a roof pendant of mafic flows, pyroclastics, chert and epidote skarn of the Upper Triassic Karmutsen Formation (Vancouver Group) engulfed in diorite and quartz diorite of Upper Jurassic age within the Jurassic to Tertiary Coast Plutonic Complex. Bedding strikes 040 degrees and dips 75 degrees northwest.

Pyrite, pyrrhotite and chalcopyrite occur as fracture-infillings along conjugate joints and as blebs in the roof pendant rocks. Several grab samples assayed between 0.21 and 0.55 per cent copper (Assessment Report 11333, page 2). A shear zone in the vicinity is reported to contain pyrite and molybdenite.

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EMPR PF (Fleming, D.B. (1983): Geological Assessment and Work

Proposal - Bacon Claims)

GSC MAP 42-1963; 1069A; 1386A

GSC OF 611

GSC P 90-1F, pp. 95-101

Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 195
REPORT: RGEN0100

BIBLIOGRAPHY

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DATE CODED: 1990/06/06
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW061**

NATIONAL MINERAL INVENTORY:

NAME(S): **STEIN, CHALICE, H.D.,
BACON, WALLY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

Underground

MINING DIVISION: Vancouver

LATITUDE: 49 45 02 N
LONGITUDE: 123 59 51 W
ELEVATION: 5 Metres

UTM ZONE: 10 (NAD 83)
NORTHING: 5511374
EASTING: 428143

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on portal of adit (Assessment Report 12641).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Marcasite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

DIMENSION: Metres

STRIKE/DIP: 120/

TREND/PLUNGE:

COMMENTS: Zone trends 120 to 130 degrees.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Rhyodacite Cherty Breccia
Quartz Breccia

HOSTROCK COMMENTS: Plutonic rocks in the vicinity have been dated as Late Jurassic.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Wrangell

Plutonic Rocks

COMMENTS: Hosted in roof pendant in the Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

17.3000

Grams per tonne

Gold

40.1100

Grams per tonne

COMMENTS: Sample across 0.75 metre.

REFERENCE: Assessment Report 11333.

CAPSULE GEOLOGY

The Stein showing is located along the shores of Agamemnon Bay of the Agamemnon Channel, at the northwestern end of the Sechelt Peninsula.

The earliest record of exploration in the Chalice prospect area was in 1913, when R. Durnsford Jr. drove the Stein tunnel. The showing was explored by a 21 metre long adit in 1913. In 1937, work was recorded on the Cambrian Chieftain occurrence (092GNW011). Additional mineralization was discovered at the Skookum (Chalice, 092GNW008), along the shoreline of Agamemnon Channel. Other showings, some containing massive sulphides, are reported along the shores of Agamemnon Channel. In 1982, Chalice Mining Inc. staked the ground covering the Chalice prospect. Since that time, Chalice Mining Inc. has conducted prospecting, geochemical and geophysical surveys, geological mapping, trenching and 572 metres of diamond drilling in 21 holes.

At the Stein showing, an adit at Agamemnon Bay on the north end of Sechelt Peninsula exposes a quartz healed rhyodacitic chert breccia within a roof pendant of volcanics and sediments of the Upper Triassic Karmutsen Formation, Vancouver Group. The roof pendant is hosted in the Jurassic to Cretaceous Coast Plutonic Complex. The

CAPSULE GEOLOGY

breccia zone trends 120 to 130 degrees, similar to the trend of the roof pendant.

The quartz is mineralized with pyrite and marcasite. A grab sample of pyritic material taken two metres from the portal of the adit assayed 40.11 grams per tonne gold and 17.8 grams per tonne silver (Assessment Report 12641, page 25, Sample Ton).

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EMPR ASS RPT 11333, 12641, 17941, 20039, 22286, 24069
EMPR BULL 39
GSC MAP 42-1963; 1069A; 1386A
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Columbia

DATE CODED: 1990/06/06
DATE REVISED: 1997/07/15

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW062**

NATIONAL MINERAL INVENTORY:

NAME(S): **HAWK 8**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 56 21 N
LONGITUDE: 123 24 00 W
ELEVATION: 390 Metres

NORTHING: 5531944
EASTING: 471297

LOCATION ACCURACY: Within 500M

COMMENTS: On the shore of Ashlu Creek (Assessment Report 17889, Map 5). See Ashlu (092GNW013) for further regional details.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION:
COMMENTS: Quartz vein.

STRIKE/DIP: 010/15E

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Jurassic

Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Cloudburst pluton of the Coast Plutonic Complex (GSC Paper 90-1F).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: HAWK 8

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Gold

YEAR: 1988

GRADE
4.1100 Grams per tonne

COMMENTS: Sampled over one metre.
REFERENCE: Assessment Report 17889.

CAPSULE GEOLOGY

The Hawk 8 occurrence consists of a quartz vein that strikes 010 degrees and dips 15 degrees within granodiorite of the Jurassic Cloudburst pluton (Coast Plutonic Complex). A chip sample assayed 4.11 grams per tonne gold over 1 metre (Assessment Report 17889, Map 5).

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EMPR ASS RPT *17889
EMPR FIELDWORK 1980, pp. 165-178
GSC MAP 42-1963; 1386A
GSC MEM 158
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GSC P 89-1E, pp. 177-187; 90-1E, pp. 183-195; 90-1F, pp. 95-107
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DATE CODED: 1990/06/06
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW063**

NATIONAL MINERAL INVENTORY:

NAME(S): **JR, 3V, DF,
CHALICE, HD, BACON,
TY, WINDANCER, TAJ**

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G13W 092G12W

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 49 45 13 N
LONGITUDE: 123 58 42 W
ELEVATION: 105 Metres

NORTHING: 5511696
EASTING: 429529

LOCATION ACCURACY: Within 500M
COMMENTS: Centred on collar of hole 9 in JR zone (Assessment Report 14736,
Figure A1-1).

COMMODITIES: Gold Silver Lead Copper

MINERALS

SIGNIFICANT: Marcasite Pyrite Galena Chalcopyrite Tetrahedrite
Electrum
ASSOCIATED: Quartz Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Stockwork Massive
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 20 x 1 Metres STRIKE/DIP: 065/90 TREND/PLUNGE:
COMMENTS: The orientation and dimensions are for the JR zone.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex
Cretaceous-Tertiary			Unnamed/Unknown Informal

LITHOLOGY: Granodiorite
Andesitic Dike
Hornblende Biotite Quartz Diorite
Gabbro
Diorite
Feldspar Porphyry Rhyodacite Dike
Diorite Dike

HOSTROCK COMMENTS: Plutonic rocks in the vicinity have been dated as Late Jurassic.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1985
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 21.4000 Grams per tonne
Gold 31.3000 Grams per tonne

COMMENTS: Sample over core length of 2.7 metres from drillhole 9 on the JR zone.

REFERENCE: Assessment Report 14736.

CAPSULE GEOLOGY

The JR showing is located at the northern end of the Sechelt Peninsula, between Earls Cove and Egmont, British Columbia. The zone of precious metal-bearing mineralization is exposed 770 metres east of Agamemnon Bay, 500 metres north of the west end of North Lake.

The earliest record of exploration in the area occurred in 1913 when R. Dunsford Jr. drove a tunnel (Stein adit, 092GNW061) near Earls Cove. In 1937, the Cambrian Chieftain (092GNE011) property was discovered 7 kilometres to the south. Additional massive sulphide mineralization was discovered in about 1952 at the Skookum (092GNE008), on the shores of Agamemnon Channel. Chalice Mining Inc. acquired the property in 1982 and since that time has conducted

CAPSULE GEOLOGY

prospecting, geochemical and geophysical surveys, geological mapping, trenching and diamond drilling totalling 572 metres in 21 holes. In 1988, Blue Chip Resources Inc. conducted an exploration program to evaluate showings and outline potential drill targets, under an option agreement. In 1994, most of the claims covering the JR occurrence lapsed and were subsequently restaked as the Windancer claim group by Mr. and Mrs. LaRue.

The showing is regionally hosted in the Jurassic to Cretaceous Coast Plutonic Complex. Intrusions are mainly of quartz diorite, diorite and granodiorite composition. Northwest trending roof pendants of metamorphosed intermediate volcanic and sedimentary rocks have been correlated with the Upper Triassic Karmutsen Formation. The sequence has been intruded by numerous feldspar porphyry, diorite and andesite dikes. Dike swarms are prominent in the JR showing area, along the shoreline west of Earls Cove and at the eastern end of Nelson Island.

Hornblende biotite quartz diorite that locally grades into gabbro, diorite and granodiorite comprises hostrocks of the JR showing. These intrusive rocks have been intruded by younger feldspar porphyry rhyodacite, diorite and andesitic to basaltic dikes. Dike widths vary from a few centimetres to several metres. The dikes are associated with strong northwest trending, moderate northeast and weak west trending fractures. Overall, dikes have a strike of 283 degrees.

The JR showing consists of a number of closely spaced, mineralized zones: the JR zone, 3V zone, DF zone and TY zone. The TY zone has been buried by recent road building.

The JR zone consists of a series of subparallel quartz-marcasite-epidote stringer veins in altered and sheared granodiorite. The zone strikes 065 degrees over an exposed length of 20 metres and dips nearly vertical. Exposed widths vary up to 1.5 metres. The zone is cut by several narrow andesitic dikes.

Surface samples have yielded assays of up to 6.86 grams per tonne gold and 6.72 grams per tonne silver (Assessment Report 14736). Diamond drilling intersected a section of massive marcasite with electrum in quartz averaging 31.3 grams per tonne gold and 21.4 grams per tonne silver over a core length of 2.7 metres in drillhole 9 (Assessment Report 14736).

The 3V zone, consisting of a quartz vein stockwork and outcropping over a 30 by 5 metre area, lies 260 metres northeast of the JR zone. The stockwork consists of a number of subparallel anastomosing quartz-marcasite veins trending 080 to 090 degrees. Individual veins vary from 0.06 to 0.3 metre in width. A northwest trending, andesitic dike swarm offsets and complicates the mineralization trend. Samples from the showing have assayed up to 183.2 grams per tonne gold and 347.6 grams per tonne silver.

A second quartz vein stockwork, the DF zone, is exposed for a length of 25 metres, 300 metres northwest of the JR zone. The showing consists of quartz veins with sporadic to abundant pyrite and marcasite, occasional galena and chalcopyrite, and minor tetrahedrite developed in a faulted andesitic dike and altered granodiorite. A chip sample taken across 2 metres assayed 46.96 grams per tonne gold and 83.0 grams per tonne silver (Assessment Report 14736).

The now buried TY zone has been described as a quartz flooded shear zone, 2.5 metres wide, striking 290 degrees and dipping steeply north. Several 20 to 50 centimetre wide quartz veins are reported in the hangingwall of the shear zone. The quartz veins host up to 10 per cent pyrite, chalcopyrite and other sulphides. A sample collected in 1988 from several pieces of mineralized rubble yielded 32.9 grams per tonne silver, 5.07 grams per tonne gold and 0.09 per cent copper (Assessment Report 20039).

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- EMPR BULL 39
- GSC MAP 42-1963; 1069A; 1386A
- GSC OF 611
- GSC P 90-1F, pp. 95-101
- GCNL #197, 1984; #16, #18, #23, #227, 1985
- IPDM May-June 1985
- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/07
DATE REVISED: 1997/07/15

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW064**

NATIONAL MINERAL INVENTORY:

NAME(S): **ELEPHANT**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 59 32 N
LONGITUDE: 123 28 33 W
ELEVATION: 1340 Metres

NORTHING: 5537874
EASTING: 465893

LOCATION ACCURACY: Within 500M

COMMENTS: Sample location, about 2.5 kilometres up Red Mountain Creek from Ashlu Creek and about 200 metres west (Assessment Report 17937, Map 1).

COMMODITIES: Gold Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz Chlorite Epidote
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION:
COMMENTS: Typical mineralized shear attitude.

STRIKE/DIP: 350/90

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

LITHOLOGY: Diorite
Granodiorite

HOSTROCK COMMENTS: The Cloudburst pluton is Jurassic in age (GSC Paper 90-1F, pages 95-107).

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1988

COMMODITY

GRADE

Gold

1.2300

Grams per tonne

COMMENTS: From Sample 88-5.

REFERENCE: Assessment Report 17937.

CAPSULE GEOLOGY

The area of the Elephant occurrence is underlain by granodiorite of the Jurassic Cloudburst pluton of the Coast Plutonic Complex (Geological Survey of Canada Paper 90-1F). A major regional northwest trending shear zone of Cretaceous age, the Ashlu Creek shear zone, occurs to the immediate west.

Mineralization in the area consists of quartz veins, usually vuggy and sometimes sheared, that contain pyrite, chlorite, epidote and occasionally chalcopyrite. Some of the shears, which have a typical strike of 350 degrees and dip of 90 degrees, also contain copper stains and sulphides. A number of rock samples taken on both sides of Red Mountain Creek consisted of coarse-grained diorite, usually associated with quartz veins or copper stains. One sample assayed 1.23 grams per tonne gold (Assessment Report 17937). A minor silvery sulphide was reported to occur in this sample.

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EMPR FIELDWORK 1980, pp. 165-178
GSC MAP 42-1963; 1386A
GSC MEM 158
GSC OF 611

RUN DATE: 26-Jun-2003
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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 202
REPORT: RGEN0100

BIBLIOGRAPHY

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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/07
DATE REVISED: 1990/06/07

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW065**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOUNT LOUIE**, RED JACKET

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 47 19 N
LONGITUDE: 123 52 11 W
ELEVATION: 1219 Metres

NORTHING: 5515491
EASTING: 437397

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on sample location (Assessment Report 12450).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Jurassic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Volcanic
Meta Sediment/Sedimentary
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

COMMENTS: Hosted in roof pendant in the southern Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Grab

COMMODITY

GRADE

Copper

0.0100

Per cent

Molybdenum

0.2330

Per cent

COMMENTS: Sample of quartz with disseminated molybdenite.

REFERENCE: Assessment Report 12450.

CAPSULE GEOLOGY

A zone of quartz veinlets outcrops 1.5 kilometres southeast of the peak of Mount Louie, 3.4 kilometres southeast of Jervis Inlet.

The Mount Louie zone is hosted in a roof pendant of metavolcanics and metasediments of the Lower Cretaceous Gambier Group, within diorite of Cretaceous age of the Jurassic to Tertiary Coast Plutonic Complex. The veinlets are sparsely mineralized with molybdenite and chalcopyrite. A grab sample of quartz with disseminated molybdenite assayed 0.233 per cent molybdenite and 0.01 per cent copper (Assessment Report 12450, page 3).

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EMPR ASS RPT 12450

EMPR BULL 39

GSC MAP 42-1963; 1069A; 1386A

GSC OF 611

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/06/08
DATE REVISED: / /

CODED BY: PSF
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GNW066**

NATIONAL MINERAL INVENTORY:

NAME(S): **SECHELT GRANITE**

MINING DIVISION: Vancouver

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 30 04 N
LONGITUDE: 123 48 29 W
ELEVATION: 168 Metres

NORTHING: 5483478
EASTING: 441492

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry, 1.25 kilometres southwest of Snake Bay (Z.D. Hora, Personal Communication).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Commodity is granite.
ASSOCIATED: Plagioclase
MINERALIZATION AGE: Jurassic

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Syngenetic Industrial Min.
TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic			Coast Plutonic Complex

ISOTOPIC AGE: 150
DATING METHOD: Uranium/Lead

LITHOLOGY: Fine Grained Equigranular Diorite
Medium Grained Gabbro
Granodiorite

HOSTROCK COMMENTS: Isotopic age date from Geological Survey of Canada Paper 90-1F, p. 99. Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Sechelt Granite prospect is located on the east side of the Sechelt Peninsula, 1.25 kilometres southwest of Snake Bay.

The Sechelt Peninsula is underlain by diorite and granodiorite of Jurassic age within the Jurassic to Tertiary Coast Plutonic Complex.

The stone at the proposed quarry site, on a steep east facing slope, is reported to be comprised of medium grained gabbro that develops a deep black finish on polishing (Z.D. Hora, Personal Communication, 1991). A hand sample of cut and polished material consisted of fine to medium grained equigranular diorite with up to 5 per cent black minerals in a dark grey plagioclase matrix. Preliminary sampling indicates large blocks ranging from 2 to 5 cubic metres can be extracted from the deposit. Some fracturing is present, but this is reported to decrease to acceptable levels farther into the hillside.

This deposit of black granite is being developed by Sechelt Granite Ltd., an affiliate of Tri-Sil Minerals. The company has been sampling the deposit and carrying out market studies since 1989.

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EM EXPL 2002-29-40
EMPR OF 1991-20
GSC MAP 42-1963; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-107

DATE CODED: 1991/06/07
DATE REVISED: 1991/03/07

CODED BY: PSF
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW067**

NATIONAL MINERAL INVENTORY:

NAME(S): **SQUAMISH** LOGGERS LANE QUARRY, GLACIER WHITE
ISLAND WHITE QUARRY, PACIFIC GRANISTONE, GARIBALDI GRANITE

STATUS: Producer Open Pit
REGIONS: British Columbia
NTS MAP: 092G11E

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 49 42 47 N
LONGITUDE: 123 08 24 W

NORTHING: 5506737
EASTING: 489907

ELEVATION: 30 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Producing quarry, 150 metres east of the old Whistler Highway, 1 kilometre northeast of Squamish.

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Commodity is granite.
ASSOCIATED: Feldspar Quartz Biotite
MINERALIZATION AGE: Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Syngenetic Industrial Min.
TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 94 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Medium Grained Equigranular Granite
Biotite Granodiorite

HOSTROCK COMMENTS: Isotopic age date from Geological Survey of Canada Map 1386A.
Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The Island White quarry is located 1 kilometre northeast of Squamish, 150 metres east of the old Whistler Highway. The area, in the vicinity of Squamish at the head of Howe Sound, is underlain by Cretaceous granite and granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The stone from this quarry consists of a medium to coarse grained equigranular granite comprising up to 10 per cent black biotite and 30 to 40 per cent grey quartz in a milky white feldspar matrix. The rock is very similar to the granite at the Marchesi Granite quarry (092JNE144), but is slightly coarser in grain size. Island White Quarry Corporation is producing granite on a seasonal basis from this quarry. A total of 350 tonnes were quarried in 1990, the first year of operation (J. Grinnell, personal communication, 1991). The granite is shipped to the processing plant of Pacific Granistone Corporation in Delta, where it is cut into panels suitable for such uses as building facings and paving stones. The stone is marketed under the name "Island White Granite." A new (1996) plant in Squamish, operated by Garibaldi Granite and Pender Capital Corporation, will process stone from this quarry. The front of the Customs and Immigration Building (1914) on Government Street in Victoria has a base of Island White granite. Garibaldi Granite Inc. currently markets Glacier White from this quarry.

BIBLIOGRAPHY

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1996-1, p.10
EMPR MINERAL MARKET UPDATE July, 1991
EMPR OF 1991-20; 1994-1

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 206
REPORT: RGEN0100

BIBLIOGRAPHY

GSC MAP 42-1963; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-107
N MINER Oct. 19, 1998
WWW <http://www.novoroc.com/garibal.htm>
Focus on Industrial Minerals, Vol. 3, Issue 1

DATE CODED: 1991/06/07
DATE REVISED: 1991/03/07

CODED BY: PSF
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW068**

NATIONAL MINERAL INVENTORY:

NAME(S): **STAWAMUS CHIEF**, OLSEN CREEK, GARIBALDI GRANITE

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 41 06 N
LONGITUDE: 123 07 01 W
ELEVATION: 579 Metres

NORTHING: 5503615
EASTING: 491564

LOCATION ACCURACY: Within 500M

COMMENTS: Test sample site just off a road, 1.75 kilometres east of Stawamus Chief Mountain, 3 kilometres east-southeast of the community of Squamish.

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 94 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Granite

HOSTROCK COMMENTS: Date from Geological Survey of Canada Map 1386A. Coast Plutonic Complex ranges from Jurassic to Tertiary.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The test sample site from the Stawamus Chief occurrence is located about 3 kilometres east-southeast of the community of Squamish, 1.75 kilometres east of Stawamus Chief Mountain, just off a road.

The area, in the vicinity of Squamish at the head of Howe Sound, is underlain by Cretaceous granite and granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

The stone from this site is medium to coarse-grained white granite with black biotite specks, similar to "Island White Granite" quarried near Squamish (see 092HWN067). B.C. Rockworks International tested the site in 1991.

A new (1996) plant in Squamish, operated by Garibaldi Granite and Pender Capital Corporation, will process stone from this quarry.

BIBLIOGRAPHY

EM INF CIRC 1998-1, p. 13
EMPR OF 1991-20
GSC MAP 42-1963; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-107
Focus on Industrial Minerals, Vol. 3, Issue 1

DATE CODED: 1993/02/22
DATE REVISED: 1993/02/25

CODED BY: GO
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW069**

NATIONAL MINERAL INVENTORY:

NAME(S): **J1**, ROAD SHOWING, SAUMAREZ BLUFF

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 52 01 N
LONGITUDE: 123 56 36 W
ELEVATION: 640 Metres

NORTHING: 5524264
EASTING: 432208

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located along a road just east of Freil Lake, on the west side of Jervis Inlet, about 88 kilometres northwest of Vancouver (Assessment Report 23229).

COMMODITIES: Copper Lead Silver

MINERALS

SIGNIFICANT: Pyrite Chalcocite
COMMENTS: Possibly bornite.
ASSOCIATED: Quartz Magnetite Hematite
ALTERATION: Epidote Chlorite Limonite
ALTERATION TYPE: Propylitic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Jurassic-Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Diorite
Quartz Diorite
Feldspar Porphyry Dike
Andesitic Tuff
Felsite
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP:
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1994
SAMPLE TYPE: Grab
COMMODITY GRADE

Silver	11.3000	Grams per tonne
Copper	0.1700	Per cent
Lead	0.1200	Per cent

COMMENTS: Copper from grab sample 54236; lead and silver from grab sample 54253.
REFERENCE: Assessment Report 23896.

CAPSULE GEOLOGY

The J1 showing is located between Saumarez Bluff on the west side of Jervis Inlet and Freil Lake, about 88 kilometres northwest of Vancouver, British Columbia.

The J1 property is underlain by at least two and possibly three narrow northwesterly trending roof pendants of Lower Cretaceous Gambier Group volcanic and sedimentary rocks surrounded by granodiorite to quartz monzonite of the Jurassic to Cretaceous Coast Plutonic Complex. Metamorphic rocks are generally of upper greenschist to amphibolite grade, consisting of gneiss, schist, quartzite and amphibolite. The Gambier Group rocks comprise fine grained andesitic and tuffaceous metavolcanics with interbedded chlorite-altered siltstone and cherty argillite. Bedding generally strikes northwest with steep dips to the northeast and southwest.

CAPSULE GEOLOGY

Stockworks of quartz and quartz-hematite occur locally.

Alteration within this package is a propylitic assemblage comprising epidote and chlorite occurring as narrow veinlets and disseminations. Pyritic diorite and quartz diorite bodies intrude the volcanic-sedimentary rocks. Quartz trachyte, latite, porphyritic andesite, quartz monzonite, feldspar porphyry and pebble dikes intrude both Gambier Group and Coast Plutonic Complex rocks.

Rock units identified at the JI showing include felsite, andesite tuff, a transitional unit between felsite and andesite tuff, diorite, granodiorite and feldspar porphyritic andesite to basalt and felsite dikes.

At the Road showing, mineralization consists of abundant vein-hosted pyrite with local concentrations of chalcocite in a shear in a diorite intrusion adjacent to a 6 metre wide feldspar porphyry dike. The vein can be traced for 4 metres at the Road showing which is also marked by a strong 11-metre wide gossan marking the contact between andesitic tuff and fine-grained diorite.

Initial select prospect grab samples analysed 3.25 per cent copper but could not be duplicated by more representative chip samples (Assessment Report 23229, page 14). Representative samples have not been able to duplicate these results (Assessment Report 23896). However, grab sample 54236 taken in 1994, yielded 0.17 per cent copper. The sample was taken from fine-grained diorite with strong limonite alteration, 10 per cent disseminated and stringer pyrite and 5 per cent magnetite (Assessment Report 23896). Another grab sample (54253) yielded 0.12 per cent lead and 11.3 grams per tonne silver from interbedded, epidote-chlorite altered, argillite and tuff with pyrite, magnetite and hematite. The mineralization appeared fracture controlled.

Property exploration in 1994 has extended soil geochemistry copper anomalies northwest and southeast. These elevated copper values (greater than 300 parts per million) often lie parallel or downslope of andesite tuff-felsite flow contacts. Northwest trending zones of high chargeability are often coincident with or directly upslope of strong soil copper anomalies. Moderate to strong resistivity lows correspond to chargeability highs.

BIBLIOGRAPHY

EMPR ASS RPT *23229, *23896
EMPR BULL 60
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-107
WWW <http://www.infomine.com/>

DATE CODED: 1994/12/05
DATE REVISED: 1997/07/30

CODED BY: GO
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW070**

NATIONAL MINERAL INVENTORY:

NAME(S): **ASHLU RIVER QUARRY**, GARIBALDI GOLDEN, GARIBALDI GREY,
GARIBALDI GRANITE

STATUS: Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G13E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 59 29 N

LONGITUDE: 123 32 05 W

ELEVATION: Metres

NORTHING: 5537810

EASTING: 461671

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry at mile post 25 on the Ashlu River forestry road.

COMMODITIES: Granite

Dimension Stone

Building Stone

MINERALS

SIGNIFICANT: Orthoclase Plagioclase Quartz Biotite Microcline

ASSOCIATED: Magnetite Augite Apatite Sphene Clinozoisite

Pyrite

ALTERATION: Chlorite Sericite

ALTERATION TYPE: Chloritic Sericitic

MINERALIZATION AGE: Cretaceous-Tertiary

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Syngenetic Industrial Min.

TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Cretaceous-Tertiary

Coast Plutonic Complex

LITHOLOGY: Granite
Quartz Diorite
Clay Till

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Ashlu River Quarries can be accessed from Squamish by logging road upstream along the Squamish and Ashlu rivers. The quarries are owned and operated by Garibaldi Group Inc.

The quarries are located in the lower part of the Ashlu River valley. The two properties are in a similar type of granite about 100 metres apart. Because of its distinctive colour, the stone on the west side of the river is called Garibaldi Golden while stone on the east side is called Garibaldi Grey.

Both quarry sites display widely spaced natural fracturing and allows quarrying of 5 to 10 cubic metre blocks with a minimum of waste. In outcrop, the stone has a smooth, slightly pitted surface indicating an absence of microfractures and exfoliation features. The stone has a uniform look without dark knots or inclusions. The granite is part of the Cretaceous-Tertiary Coast Plutonic complex.

The granite (Garibaldi Golden) on the west side is covered by thin patches of clayey till with water seepage along the till/bedrock interface. While the clayey till is dark grey in colour, the seepage is characterized by a rusty yellow layer a few centimetres thick. This yellow, clayey material has soaked into the bedrock along joints and microcracks, resulting in the unusual colour of the stone when it is cut and polished.

Garibaldi Golden is a grey-blond, fine-grained granite. The rock is distinguished by a slight, pervasive yellow staining and some banding of a darker stain. This appears to be related to successive weathering/alteration fronts that introduced the stain from overlying till. The authors and the operator anticipate staining will diminish with depth. Major mineral constituents are orthoclase, quartz, plagioclase and microcline. Minor constituents are magnetite, biotite, clinopyroxene (augite), chlorite, apatite, sphene and clinozoisite. Most crystals are cracked at the microscopic scale and appear to be the conduits through which the surface waters can migrate. The mafic minerals are fairly fresh with minor chloritization and the feldspars are weakly sericitized. The rock

MINFILE NUMBER: **092GNW070**

CAPSULE GEOLOGY

takes a fair polish (7-8/10) with some pitting at biotite grains. There is no fabric or fracturing and the microcracking of grains is not visible macroscopically.

Garibaldi Grey is a fine-grained, grey, salt and pepper granite. Major constituents are white plagioclase and orthoclase, grey quartz and black biotite. Minor constituents are chlorite, pyroxene, magnetite, pyrite and clinozoisite. The texture is uniform with a coarse sugary appearance and no fabric. The rock polishes well (7-8/10) to a bright finish with minor, shallow pitting at the corners of biotite grains. The rock appears quite fresh with minor chlorite after biotite and some sericitization of the feldspars. There is a trace of pyrite present but no visible staining.

Garibaldi Granite Group Inc. began production in August 1996 and has just surpassed \$1 million in sales. One of its major contracts is supplying and installing its 'Glacier White Granite' on the new Mont Blanc hotel project in Whistler (T. Schroeter, personal communication, 1997).

BIBLIOGRAPHY

- EMPR EXPL 1992, pp. 107-116
EMPR FIELDWORK 1994, pp. 365-369; *1996, pp. 301-306
GSC MAP 1836A
WWW <http://www.novoroc.com/garibal.htm>
Streckeisen, A. (1976): To Each Plutonic Rock its Proper Name;
Earth and Science Reviews, Volume 12, pages 1-33.

DATE CODED: 1997/02/05
DATE REVISED: 1998/12/04

CODED BY: DEJ
REVISED BY: ZDH

FIELD CHECK: Y
FIELD CHECK: Y

MINFILE NUMBER: **092GNW072**

NATIONAL MINERAL INVENTORY:

NAME(S): **GARIBALDI SAND**

STATUS: Prospect Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G14E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 57 11 N

NORTHING: 5533423

LONGITUDE: 123 09 36 W

EASTING: 488522

ELEVATION: 325 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Garibaldi Sand Pit is located 2 kilometres south of Garibaldi in south part of Tenure Lease 8930.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE: Quaternary GROUP: Undefined Group FORMATION: Undefined Formation IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Garibaldi Sand Pit product is Select Granular Sub-Base. The pit may have only low volume remaining. It is located within a fan deposit. The pit is on Crown Land located within a Park Reserve.

BIBLIOGRAPHY

ARMS 156
MTH District Pit 1156B
MTH Provincial Pit 168
Air Photo BC7521-131

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/01

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW073**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUBBLE CREEK**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 58 31 N
LONGITUDE: 123 08 07 W
ELEVATION: 150 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5535891
EASTING: 490300

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Rubble Creek Pit produces Granular Borrow from a fan deposit.
This pit is on Crown Land.

BIBLIOGRAPHY

ARMS 166
MTH District Pit 1166E

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW074**

NATIONAL MINERAL INVENTORY:

NAME(S): **RAYONIER**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 43 24 N
LONGITUDE: 123 06 12 W
ELEVATION: 100 Metres

NORTHING: 5507876
EASTING: 492552

LOCATION ACCURACY: Within 500M

COMMENTS: Rayonier Pit is south of the Mamquam River.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Vesicular Volcanic
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Rayonier Pit produces 25 millimetres Well Graded Base. This pit is on Crown Land. Pit run includes 25 per cent red vesicular volcanics.

BIBLIOGRAPHY

ARMS 167
MTH District Pit 1168A
MTH Provincial Pit 171

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW075**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAMQUAM RIVER NORTH**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 44 19 N
LONGITUDE: 123 05 45 W

NORTHING: 5509573
EASTING: 493095

ELEVATION: 150 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Mamquam River North Pit is a little more than 1.6 kilometres east of Highway 99, 0.6 kilometre north of the Mamquam River.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The Mamquam River North Pit produces 25 millimetres Well Graded Base. This pit is on Private Land. The pit is located in a terrace deposit.

BIBLIOGRAPHY

ARMS 168
MTH District Pit 1168B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW076**

NATIONAL MINERAL INVENTORY:

NAME(S): **ALICE LAKE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 46 36 N
LONGITUDE: 123 06 54 W
ELEVATION: 200 Metres

NORTHING: 5513806
EASTING: 491720

LOCATION ACCURACY: Within 500M

COMMENTS: Two pits occur approximately 2 kilometres east of Highway 99, one just east of Alice Lake and a second pit, just to the north, south of Cat

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Porphyry
Vesicular Basalt
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Alice Lake Pits produce Granular Borrow. This pit is on Crown Land. The pit(s)? occur in glacial moraine. The material extracted consists of vesicular basalt and porphyry.

BIBLIOGRAPHY

ARMS 169
MTH District Pit 1168C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW077**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUBY LAKE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 42 01 N
LONGITUDE: 123 57 30 W
ELEVATION: 200 Metres

NORTHING: 5505748
EASTING: 430894

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Ruby Lake Pit is on Reserved Crown Land. The pit is located in a fan deposit overlain by talus. This pit produces 19 millimetres High Fines Surfacing Aggregate.

BIBLIOGRAPHY

ARMS 195
MTH District Pit 1267A
MTH Provincial Pit 194

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW078**

NATIONAL MINERAL INVENTORY:

NAME(S): **GARDEN BAY LAKE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 38 42 N
LONGITUDE: 124 00 06 W
ELEVATION: 125 Metres

NORTHING: 5499643
EASTING: 427687

LOCATION ACCURACY: Within 500M

COMMENTS: Lake. The Garden Bay Lake Pit is located east of Garden Bay Lake, 0.3 kilometre west of Oyster Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE Quaternary GROUP Undefined Group FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Garden Bay Lake Pit is located on Crown Land.

BIBLIOGRAPHY

ARMS 196
MTH District Pit 1267B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW079**

NATIONAL MINERAL INVENTORY:

NAME(S): **HASLEM ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 35 52 N
LONGITUDE: 123 58 52 W
ELEVATION: 120 Metres

NORTHING: 5494374
EASTING: 429102

LOCATION ACCURACY: Within 500M

COMMENTS: The Haslem Road Pit is located east of Highway #101 on Haslem Logging Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Haslem Road Pit is located on Reserved Crown Land. The pit produces Granular Borrow.

BIBLIOGRAPHY

ARMS 197
MTH District Pit 1268A
MTH Provincial Pit 195

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW080**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAST FRANCIS PENNINSULA ROAD**

STATUS: Prospect Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G12W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 36 13 N

NORTHING: 5495046

LONGITUDE: 124 00 22 W

EASTING: 427304

ELEVATION: 200 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located east of Highway #101, opposite Francis Peninsula.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The East Francis Peninsula Road Pit is located on Reserved Crown Land. The pit produces Granular Borrow.

BIBLIOGRAPHY

ARMS 198
MTH District Pit 1268B
MTH Provincial Pit 196

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW081**

NATIONAL MINERAL INVENTORY:

NAME(S): **TROUT LAKE ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 32 10 N
LONGITUDE: 123 53 16 W
ELEVATION: 250 Metres

NORTHING: 5487434
EASTING: 435766

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located 1.6 kilometres north of Honeymoon Bay.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Trout Lake Road Pit is located on Reserved Crown Land. The pit produces Granular Borrow. The pit is located in an area described as rocky and hummocky.

BIBLIOGRAPHY

ARMS 200
MTH District Pit 1279A
MTH Provincial Pit 1279

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW082**

NATIONAL MINERAL INVENTORY:

NAME(S): **HALFMOON BAY**

STATUS: Producer
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 31 27 N
LONGITUDE: 123 55 40 W

NORTHING: 5486141
EASTING: 432855

ELEVATION: 50 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located on Brooks Road 2.4 kilometres northwest of Halfmoon Bay.

COMMODITIES: Aggregate Peat Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel
Peat

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Halfmoon Bay Pit is located on Reserved Crown Land. The pit produces 19 millimetres High Fines Surfacing Aggregate. Overburden at the pit site consists of peat.

BIBLIOGRAPHY

ARMS 201
MTH District Pit 1279B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW083**

NATIONAL MINERAL INVENTORY:

NAME(S): **SECRET COVE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 32 15 N
LONGITUDE: 123 56 00 W
ELEVATION: 150 Metres

NORTHING: 5487628
EASTING: 432472

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located 690 metres along logging road that branches off Highway #101.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Secret Cove Pit is located on Reserved Crown Land. The pit produces Granular Borrow from a terrace deposit.

BIBLIOGRAPHY

ARMS 202
MTH District Pit 1279C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW084**

NATIONAL MINERAL INVENTORY:

NAME(S): **TROUT LAKE NORTH**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 31 17 N
LONGITUDE: 123 52 39 W
ELEVATION: 250 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5485789
EASTING: 436490

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Trout Lake North Pit is located on Reserved Crown Land. The pit extracts material from a fan deposit.

BIBLIOGRAPHY

ARMS 204
MTH District Pit 1279F

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW085**

NATIONAL MINERAL INVENTORY:

NAME(S): **TUWANEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 32 21 N
LONGITUDE: 123 44 11 W
ELEVATION: 200 Metres

NORTHING: 5487656
EASTING: 446723

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located approximately 8 kilometres north of Sechelt.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Tuwanek Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 206
MTH District Pit 1289A
MTH Geotechnical File 5672
MTH Provincial Pit 199

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW086**

NATIONAL MINERAL INVENTORY:

NAME(S): **DAISY LAKE**, DAISEY LK

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 59 38 N
LONGITUDE: 123 08 59 W

NORTHING: 5537962
EASTING: 489268

ELEVATION: 450 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Daisy Lake Pit is west of Daisy Lake, north of adjoining Roe Creek and west of the BCR Railroad, Howe Sound.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Daisy Lake Pit product is 25 millimetres Well Graded Base. The has a high water table. It is located on Crown Land.

BIBLIOGRAPHY

ARMS 155
MTH District Pit 1156A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/01

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW087**

NATIONAL MINERAL INVENTORY:

NAME(S): **CULLITON CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 52 23 N
LONGITUDE: 123 09 20 W

NORTHING: 5524528
EASTING: 488822

ELEVATION: 250 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Culliton Creek is located between LR 32+00 and LR 133+50 of Culliton Creek Project.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE Quaternary GROUP Undefined Group FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Culliton Creek Pit is located in a fan deposit. It produces Granular Borrow. Pit run: 10 per cent sand, 70 per cent small cobbles and 20 per cent ?. The pit is located on Crown Land.

BIBLIOGRAPHY

ARMS 157
MTH District Pit 1157A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/01

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW088**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHEAKAMUS RIVER**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 51 56 N
LONGITUDE: 123 09 55 W
ELEVATION: 250 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5523696
EASTING: 488122

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Cheakamus River Pit is located in a glaciofluvial deposit, on Reserved Crown Land. It produces Granular Borrow.

BIBLIOGRAPHY

ARMS 158
MTH District Pit 1157B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/01

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW089**

NATIONAL MINERAL INVENTORY:

NAME(S): **MISERY CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G12E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 40 59 N
LONGITUDE: 123 34 44 W
ELEVATION: 50 Metres

NORTHING: 5503553
EASTING: 458241

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located 26 kilometres northeast of Sechelt on north side of Salmon Inlet at Misery Creek.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Granodiorite
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Misery Creek Pit is located on Unsurveyed Crown Land. This pit produces 25 millimetres Well Graded Base. Extraction is from a delta deposit containing hard granodiorites.

BIBLIOGRAPHY

ARMS 211
MTH District Pit 1297A
MTH Provincial Pit 202

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW090**

NATIONAL MINERAL INVENTORY:

NAME(S): **PORT MELLON**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 30 37 N
LONGITUDE: 123 29 57 W

NORTHING: 5484303
EASTING: 463864

ELEVATION: 50 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located approximately 10 kilometres north of Langdale via Highway #101.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Alluvium
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Port Mellon Pit is located on private land. This pit produces 25 millimetres Well Graded Base. Extraction is from a delta fan deposit which is overlain by 3.0 metres of alluvial debris.

BIBLIOGRAPHY

ARMS 212
MTH District Pit 1299A
MTH Provincial Pit 203

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW091**

NATIONAL MINERAL INVENTORY:

NAME(S): **STONEY CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 40 37 N
LONGITUDE: 123 09 05 W
ELEVATION: 100 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5502724
EASTING: 489078

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Stoney Creek Pit is located on private land. This pit produces Select Granular Sub-Base. Extraction is from a glaciofluvial deposit.

BIBLIOGRAPHY

ARMS 234
MTH District Pit 1158B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW092**

NATIONAL MINERAL INVENTORY:

NAME(S): **PGE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 46 31 N
LONGITUDE: 123 09 38 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5513658
EASTING: 488440

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located near Indian Reserve #13.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The PGE Pit is located on private land. This pit produces Select Granular Sub-Base. Extraction is from a fan deposit.

BIBLIOGRAPHY

ARMS 235
MTH District Pit 1158C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW093**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHEEKYE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G14W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 47 29 N
LONGITUDE: 123 09 10 W
ELEVATION: 110 Metres

NORTHING: 5515448
EASTING: 489004

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 10 kilometres north of Squamish.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Cheekye Pit is located on Crown Land. This pit produces 25 millimetres High Fines Surfacing Aggregate.

BIBLIOGRAPHY

ARMS 236
MTH District Pit 1158D
MTH Provincial Pit 169

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW094**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRITANNIA BEACH**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G11W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 37 12 N
LONGITUDE: 123 12 22 W
ELEVATION: 5 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5496402
EASTING: 485113

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Britannia Beach Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 237
MTH District Pit 1159A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW095**

NATIONAL MINERAL INVENTORY:

NAME(S): **ADIT CREEK**, ADIT SHOWING, TREAT

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G13W
 BC MAP:

Underground

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 21 N
 LONGITUDE: 123 51 31 W

NORTHING: 5521102
 EASTING: 438261

ELEVATION: 457 Metres
 LOCATION ACCURACY: Within 500M

COMMENTS: The location of the Adit Creek showing (Assessment Report 23238, Map No. 1).

COMMODITIES: Copper Silver Gold Zinc Lead

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite Sphalerite
 ASSOCIATED: Hematite Magnetite Quartz
 ALTERATION: Hematite Epidote Chlorite Silica
 ALTERATION TYPE: Oxidation Propylitic Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Massive
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I06 Cu±Ag quartz veins
 COMMENTS: Massive sulphide lenses are 0.1 to 14 centimetres wide hosted along siltstone-andesite tuff contacts or in shear zones.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE Lower Cretaceous GROUP Gambier FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesite
 Andesite Tuff
 Andesite Flow
 Argillaceous Siltstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 TERRANE: Gambier Plutonic Rocks
 METAMORPHIC TYPE: Regional Contact RELATIONSHIP: Pre-mineralization GRADE: Hornfels
 Syn-mineralization

INVENTORY

ORE ZONE: ADIT REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1993
 SAMPLE TYPE: Chip
 COMMODITY GRADE
 Silver 103.8800 Grams per tonne
 Gold 0.0100 Grams per tonne
 Copper 0.4100 Per cent
 Lead 0.0100 Per cent
 Zinc 0.0400 Per cent

COMMENTS: Chip sample R9 taken across 30 centimetres.
 REFERENCE: Assessment Report 23238.

CAPSULE GEOLOGY

The Adit Creek showing is located on Adit Creek, a tributary of Treat Creek on the southern slopes of Treasure Mountain. This is on the east side of Jervis Inlet, at Prince of Whales Reach.

The Copper Group of claims (092GNW017) were staked in the late 1890s. During the period of 1917 to 1922, a large amount of work was done to develop the showings. Three adits were driven into massive pyrrhotite-magnetite mineralization at 610 metres elevation. Several years later, numerous mineral showings were located between 152 and 762 metres elevation. During the early 1920s, an adit was driven at 305 metres elevation and three trenches excavated. The property then remained idle until 1966, when Gunnex Ltd. conducted mapping and sampling of all the old showings. Between 1971 and 1973, some surface mapping, soil geochemical and geophysical surveys, and diamond drilling was done by El Paso Mining. In 1987, Ashworth

CAPSULE GEOLOGY

Explorations staked, mapped and sampled the adjacent Treat claims. In 1993, Arrowhead Exploration Services was requested by Anthian Resources Corp. to conduct a comprehensive property exploration program on the Treat claims.

Regionally, the Adit Creek showing is underlain by a series of northwest trending volcanic and sedimentary rocks which form a roof pendant of Lower Cretaceous Gambier Group rocks intruded by diorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Adit Creek showing, host strata are a series of fine grained andesitic volcanic tuffs and flows, and agglomerates with included layers of argillaceous siltstone, chert, limestone and basalt flows. The whole package has been extensively altered by a quartz diorite phase of the Coast Plutonic Complex. Andesitic tuffs and flows comprise about 80 volume per cent of all rock types in the area. The argillaceous siltstone occurs as a northwest trending, moderately to steeply dipping lens 5 to 100 metres wide. Bedding dips 40 to 70 degrees to the west or east.

The main structural features are north to northwest trending, moderate to steep dipping faults, shear zones and fractures. Alteration consists of either propylitic alteration composed of epidote and chlorite or silicification as replacement textures that occur in lenses 5 to 200 metres wide along the andesite-siltstone contact.

Mineralization and alteration at the Adit Creek showing are related to the contact between argillaceous siltstone and andesite tuffs and/or flows or shear zones. Two mineralization styles have been observed: 1) pyrrhotite-pyrite-magnetite-hematite-chalcopyrite and/or sphalerite and 2) pyrrhotite-pyrite-chalcopyrite and/or sphalerite. They occur as semimassive to massive sulphide lenses 0.1 to 14.0 centimetres wide in veins and fracture fillings. A 7-metre long adit was driven in 1917 on this mineralization.

In 1993, 10 rock chip samples were taken from the Adit Creek showing. Sample R9 yielded the highest silver and copper values of these samples, yielding 103.88 grams per tonne silver, 0.41 per cent copper, 0.02 gram per tonne gold, 0.04 per cent zinc and 0.01 per cent lead over 30 centimetres (Assessment Report 23238). The sample was taken at the contact between andesite tuff and siltstone containing 2 to 3 per cent massive pyrite and chalcopyrite. A grab sample from one these adits in 1917 was reported to have yielded 1.1 per cent copper, 41.14 grams per tonne silver and 0.68 gram per tonne gold. A 1.2-metre wide face sample from the adit was reported to have yielded 1.0 per cent copper and 27.43 grams per tonne silver.

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EMPR ASS RPT 3613, 18346, *23238
EMPR GEM 1972-278; 1973-242
EMPR OF 1988-28, p. 68
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW096**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROAD**, ROAD SHOWING, TREAT

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 54 N
LONGITUDE: 123 52 13 W
ELEVATION: 229 Metres

NORTHING: 5522131
EASTING: 437434

LOCATION ACCURACY: Within 500M

COMMENTS: The location of the Road showing (Assessment Report 23238, Map No. 1).

COMMODITIES: Copper Silver Zinc

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite Sphalerite
COMMENTS: Chalcopyrite is minor. Sphalerite is inferred from analytical results.

ASSOCIATED: Limonite Hematite
ALTERATION: Limonite Hematite

ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins I05 Polymetallic veins Ag-Pb-Zn±Au
COMMENTS: Mineralization is associated with a gossan zone.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE Lower Cretaceous GROUP Gambier FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesite
Andesite Tuff
Andesite Flow
Gossan

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Gambier
METAMORPHIC TYPE: Regional Contact Plutonic Rocks RELATIONSHIP: Pre-mineralization Syn-mineralization GRADE: Hornfels

INVENTORY

ORE ZONE: ROADCUT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1993
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 3.4000 Grams per tonne
Copper 0.1300 Per cent
Zinc 2.2600 Per cent
COMMENTS: Chip sample R19 taken across 200 centimetres.
REFERENCE: Assessment Report 23238.

CAPSULE GEOLOGY

The Road Showing is located at 229 metres elevation on the southern slopes of Treasure Mountain. This is on the east side of Jervis Inlet, at Prince of Whales Reach. The Copper Group of claims (092GNW017) were staked in the late 1890s. During the period of 1917 to 1922, a large amount of work was done to develop the showings. Three adits were driven into massive pyrrhotite-magnetite mineralization at 610 metres elevation. Several years later, numerous mineral showings were located between 152 and 762 metres elevation. During the early 1920s, an adit was driven at 305 metres elevation and three trenches excavated. The property then remained idle until 1966, when Gunnex Ltd. conducted mapping and sampling of all the old showings. Between 1971 and 1973, some surface mapping, soil geochemical and geophysical surveys, and diamond drilling was done by El Paso Mining. In 1987, Ashworth Explorations staked, mapped and sampled the adjacent Treat claims.

CAPSULE GEOLOGY

The Road showing was discovered during this exploration program. In 1993, Arrowhead Exploration Services was requested by Anthian Resources Corp. to conduct a comprehensive property exploration program on the Treat claims.

Regionally, the Road showing is underlain by a series of northwest trending volcanic and sedimentary rocks which form a roof pendant of Lower Cretaceous Gambier Group rocks intruded by diorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Road showing, host strata are a series of fine grained andesitic volcanic tuffs and flows, and agglomerates with included layers of argillaceous siltstone, chert, limestone and basalt flows. The whole package has been extensively altered by a quartz diorite phase of the Coast Plutonic Complex. Andesitic tuffs and flows comprise about 80 volume per cent of all rock types in the area. The argillaceous siltstone occurs as a northwest trending, moderately to steeply dipping lens 5 to 100 metres wide. Bedding dips 40 to 70 degrees to the west or east.

The main structural features are north to northwest trending, moderate to steep dipping faults, shear zones and fractures. Alteration consists of either propylitic alteration composed of epidote and chlorite or silicification as replacement textures that occur in lenses 5 to 200 metres wide along the andesite-siltstone contact.

Mineralization at the Road showing is hosted in a gossan of altered andesitic tuffs and flows. Pyrite and/or pyrrhotite as 0.5 to 5.0 millimetre blebs and minor chalcopyrite comprise mineralization at the Road showing. Analytical results also indicate the presence of an unidentified zinc mineral. Rusty, light grey and green andesitic tuff with limonite and hematite alteration host this mineralization.

In 1993, 7 rock chip samples were taken across 200 centimetres from the Road showing. Sample R19 yielded 2.3 grams per tonne silver, 0.14 per cent copper, 0.02 gram per tonne gold and 3.76 per cent zinc over 200 centimetres (Assessment Report 23238).

A rock chip sample taken across 2 metres from a well mineralized roadcut at 152 metres elevation in 1987 yielded 0.1 per cent copper, 0.2 per cent lead, 2.8 per cent zinc and 20.7 grams per tonne silver. A 4-metre chip sample near trenches at 427 metres elevation yielded 0.3 per cent copper, 0.2 per cent zinc and 22.0 grams per tonne silver.

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EMPR ASS RPT 3613, 18346, *23238
EMPR GEM 1972-278; 1973-242
EMPR OF 1988-28, p. 68
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW097**

NATIONAL MINERAL INVENTORY:

NAME(S): **TREAT**, T2 DRILL TARGET ZONE

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G13W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 50 39 N
 LONGITUDE: 123 51 48 W
 ELEVATION: 457 Metres

NORTHING: 5521662
 EASTING: 437928

LOCATION ACCURACY: Within 500M

COMMENTS: The location of the T2 Drill Target Showing (Assessment Report 23238, Map No. 1).

COMMODITIES: Copper Silver Zinc Lead Gold

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite Sphalerite
 ASSOCIATED: Quartz Magnetite Hematite
 ALTERATION: Epidote Chlorite Silica
 ALTERATION TYPE: Propylitic Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Massive Disseminated
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE: Lower Cretaceous
 GROUP: Gambier
 FORMATION: Undefined Formation
 IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Andesite
 Andesite Tuff
 Andesite Flow
 Argillaceous Siltstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional Contact
 PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 PLUTONIC ROCKS: Plutonic Rocks
 RELATIONSHIP: Pre-mineralization Syn-mineralization
 GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
 YEAR: 1993
 CATEGORY: Assay/analysis
 SAMPLE TYPE: Chip
 COMMODITY GRADE
 Silver 34.0000 Grams per tonne
 Gold 0.0200 Grams per tonne
 Copper 0.7600 Per cent
 Lead 0.0900 Per cent
 Zinc 0.5500 Per cent

COMMENTS: Chip sample R6 taken across 28 centimetres.
 REFERENCE: Assessment Report 23238.

CAPSULE GEOLOGY

The Treat Showing is located on Adit Creek, a tributary of Treat Creek on the southern slopes of Treasure Mountain. This is on the east side of Jervis Inlet, at Prince of Whales Reach. The Copper Group of claims (092GNW017) were staked in the late 1890s. During the period of 1917 to 1922, a large amount of work was done to develop the showings. Three adits were driven into massive pyrrhotite-magnetite mineralization at 610 metres elevation. Several years later, numerous mineral showings were located between 152 and 762 metres elevation. During the early 1920s, an adit was driven at 305 metres elevation and three trenches excavated. The property then remained idle until 1966, when Gunnex Ltd. conducted mapping and sampling of all the old showings. Between 1971 and 1973, some surface mapping, soil geochemical and geophysical surveys, and diamond drilling was done by El Paso Mining. In 1987, Ashworth Explorations staked, mapped and sampled the adjacent Treat claims. In 1993, Arrowhead Exploration Services was requested by Anthian

CAPSULE GEOLOGY

Resources Corp. to conduct a comprehensive property exploration program on the Treat claims.

Regionally, the Treat showing is underlain by a series of northwest trending volcanic and sedimentary rocks which form a roof pendant of Lower Cretaceous Gambier Group rocks intruded by diorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Treat showing, host strata are a series of fine grained andesitic volcanic tuffs and flows, and agglomerates with included layers of argillaceous siltstone, chert, limestone and basalt flows. The whole package has been extensively altered by a quartz diorite phase of the Coast Plutonic Complex. Andesitic tuffs and flows comprise about 80 volume per cent of all rock types in the area. The argillaceous siltstone occurs as a northwest trending, moderately to steeply dipping lens 5 to 100 metres wide. Bedding dips 40 to 70 degrees to the west or east.

The main structural features are north to northwest trending, moderate to steep dipping faults, shear zones and fractures. Alteration consists of either propylitic alteration composed of epidote and chlorite or silicification as replacement textures that occur in lenses 5 to 200 metres wide along the andesite-siltstone contact.

Mineralization and alteration at the Treat showing are related to the contact between argillaceous siltstone and andesite tuffs and/or flows or shear zones. Two mineralization styles have been observed: 1) pyrrhotite-pyrite-magnetite-hematite-chalcocopyrite and/or sphalerite and 2) pyrrhotite-pyrite-chalcocopyrite and/or sphalerite. They occur as semimassive to massive sulphide lenses 0.1 to 14.0 centimetres wide in veins and fracture fillings.

In 1993, 13 rock chip samples were taken from the Treat showing. Sample R1 yielded 183.08 grams per tonne silver, 2.61 per cent copper, 0.06 gram per tonne gold, 0.05 per cent zinc and 0.01 per cent lead over 8 centimetres (Assessment Report 23238). The sample was taken from silicified andesite tuff containing 8 per cent pyrite, 1 per cent chalcocopyrite and trace sphalerite as disseminated to massive sulphides. Sample R6 yielded 34.0 grams per tonne silver, 0.76 per cent copper, 0.02 gram per tonne gold, 0.55 per cent zinc and 0.09 per cent lead over 28 centimetres. Sample R29 yielded 69.60 grams per tonne silver, 2.03 per cent copper, 0.02 gram per tonne gold, 0.68 per cent zinc and 0.04 per cent lead over 15 centimetres of chlorite altered, andesitic tuff.

BIBLIOGRAPHY

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EMPR OF 1988-28, p. 68
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
WWW <http://www.infomine.com/>
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia
Chevron File

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW098**

NATIONAL MINERAL INVENTORY:

NAME(S): **LONE JACK CREEK**, LONE JACK CREEK SHOWING, TREAT

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092G13W
 BC MAP:
 LATITUDE: 49 50 36 N
 LONGITUDE: 123 52 08 W
 ELEVATION: 183 Metres

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5521574
 EASTING: 437528

LOCATION ACCURACY: Within 500M

COMMENTS: The location of the Lone Jack Creek showing (Assessment Report 23238, Map No. 1).

COMMODITIES: Copper Silver Gold Zinc

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite Sphalerite
 ASSOCIATED: Hematite Magnetite Quartz
 ALTERATION: Hematite Epidote Chlorite Silica
 ALTERATION TYPE: Oxidation Propylitic Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Massive Disseminated
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I06 Cu±Ag quartz veins
 COMMENTS: Massive sulphide lenses are 0.1 to 14 centimetres wide hosted along siltstone-andesite tuff contacts or in shear zones.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Andesite
 Andesite Tuff
 Andesite Flow
 Argillaceous Siltstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)
TERRANE: Gambier	Plutonic Rocks
METAMORPHIC TYPE: Regional Contact	RELATIONSHIP: Pre-mineralization Syn-mineralization
	GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1993
 SAMPLE TYPE: Chip

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	2.7000	Grams per tonne
Gold	0.0100	Grams per tonne
Copper	0.1700	Per cent
Zinc	0.0200	Per cent

 COMMENTS: Chip sample R55 taken across 30 centimetres.
 REFERENCE: Assessment Report 23238.

CAPSULE GEOLOGY

The Lone Jack Creek Showing is located on Lone Jack Creek, on the southern slopes of Treasure Mountain. This is on the east side of Jervis Inlet, at Prince of Whales Reach.
 The Copper Group of claims (092GNW017) were staked in the late 1890s. During the period of 1917 to 1922, a large amount of work was done to develop the showings. Three adits were driven into massive pyrrhotite-magnetite mineralization at 610 metres elevation. Several years later, numerous mineral showings were located between 152 and 762 metres elevation. During the early 1920s, an adit was driven at 305 metres elevation and three trenches excavated. The property then remained idle until 1966, when Gunnex Ltd. conducted mapping and sampling of all the old showings. Between 1971 and 1973, some surface mapping, soil geochemical and geophysical surveys, and diamond drilling was done by El Paso Mining. In 1987, Ashworth Explorations staked, mapped and sampled the adjacent Treat claims.

CAPSULE GEOLOGY

In 1993, Arrowhead Exploration Services was requested by Anthian Resources Corp. to conduct a comprehensive property exploration program on the Treat claims.

Regionally, the Lone Jack Creek showing is underlain by a series of northwest trending volcanic and sedimentary rocks which form a roof pendant of Lower Cretaceous Gambier Group rocks intruded by diorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Lone Jack Creek showing, host strata are a series of fine grained andesitic volcanic tuffs and flows, and agglomerates with included layers of argillaceous siltstone, chert, limestone and basalt flows. The whole package has been extensively altered by a quartz diorite phase of the Coast Plutonic Complex. Andesitic tuffs and flows comprise about 80 volume per cent of all rock types in the area. The argillaceous siltstone occurs as a northwest trending, moderately to steeply dipping lens 5 to 100 metres wide. Bedding dips 40 to 70 degrees to the west or east.

The main structural features are north to northwest trending, moderate to steep dipping faults, shear zones and fractures. Alteration consists of either propylitic alteration composed of epidote and chlorite or silicification as replacement textures that occur in lenses 5 to 200 metres wide along the andesite-siltstone contact.

Mineralization and alteration at the Lone Jack Creek showing are related to the contact between argillaceous siltstone and andesite tuffs and/or flows or shear zones. Two mineralization styles have been observed: 1) pyrrhotite-pyrite-magnetite-hematite-chalcopyrite and/or sphalerite and 2) pyrrhotite-pyrite-chalcopyrite and/or sphalerite. They occur as disseminated to massive sulphide lenses 0.1 to 14.0 centimetres wide in veins, fracture fillings and tension cracks. Mineralization is hosted in an gossan area of 50 square metres on Lone Jack Creek and is fracture controlled.

In 1993, 8 rock chip samples were taken from the Lone Jack Creek showing. Sample R55 yielded 2.7 grams per tonne silver, 0.17 per cent copper, 0.01 gram per tonne gold and 0.02 per cent zinc over 30 centimetres (Assessment Report 23238). The sample was taken from rusty andesite flow containing 5 per cent hematite, 2 per cent pyrite and 2 per cent chalcopyrite.

BIBLIOGRAPHY

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EMPR ASS RPT 3613, 18346, *23238
EMPR GEM 1972-278; 1973-242
EMPR OF 1988-28, p. 68
GSC MAP 42-1963; 1069A; 1386A
GSC OF 611
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: 1997/07/30

CODED BY: KJM
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GNW099**

NATIONAL MINERAL INVENTORY:

NAME(S): **GARIBALDI OBSIDIAN**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G14E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 46 00 N
LONGITUDE: 123 04 00 W

NORTHING: 5512690
EASTING: 495199

ELEVATION: 800 Metres

LOCATION ACCURACY: Within 5 KM

COMMENTS: Samples were taken near the boundary of Garibaldi Park about 15 kilometres northeast of Squamish.

COMMODITIES: Volcanic Glass Pozzolan

MINERALS

SIGNIFICANT: Obsidian
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Volcanogenic Syngenetic Industrial Min.
TYPE: R INDUSTRIAL ROCKS

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Garibaldi	Undefined Formation	

LITHOLOGY: Obsidian
Rhyodacite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

Obsidian from the Mount Garibaldi area is exposed about 15 kilometres northeast of Squamish. The obsidian is part of the Ring Creek lava flow and is dated as Late Wisconsin in age. The rock is pitchy, black in colour, strong and brittle and generally uniform. Microscopic examination indicated that the composition is (CANMET Investigative Report 78-206):

90% glass
8% feldspar
1% muscovite
1% magnetite and hematite

This obsidian is reported to have good potential as a pozzolan for use in the cement industry. It is considered that potential for similar obsidian deposit exists within the recent volcanic flows of the area.

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GSC MAP 42-1963; 1386A
GSC OF 611
GSC P 90-1F, pp. 95-107
CANMET IR MRP/MSL *78-206, p. 5

DATE CODED: 1999/04/30
DATE REVISED: 1999/04/30

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE001**

NATIONAL MINERAL INVENTORY:

NAME(S): **GILLEY QUARRY**, PITT RIVER GRANITE QUARRY, PITT MEADOW

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 19 11 N
LONGITUDE: 122 40 35 W
ELEVATION: 20 Metres

NORTHING: 5463049
EASTING: 523518

LOCATION ACCURACY: Within 500M

COMMENTS: The quarry is on the west bank of the Pitt River, immediately south of its confluence with Munroe Creek.

COMMODITIES: Granite Dimension Stone Building Stone Aggregate

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Quartz diorite quarry.
MINERALIZATION AGE: Jurassic

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite R15 Crushed rock

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: Quartz diorite was quarried. The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fraser Lowland
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The Gilley Quarry provided crushed rock, riprap and amour rock from its operation for over 50 years. Quartz diorite of Jurassic age within the Jurassic to Tertiary Coast Plutonic Complex was mined from the quarry site located on the west side of the Pitt River at the confluence of the Pitt River and Munroe Creek. The quartz diorite is very dark with abundant closely spaced fractures. Concrete aggregate was also produced from this quarry site.

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GSC MEM 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/14

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE002**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUSKIN**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 12 13 N
LONGITUDE: 122 23 58 W
ELEVATION: 91 Metres

NORTHING: 5450264
EASTING: 543747

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the west side of Hayward Lake, about 0.8 kilometres up the Stave River from the Ruskin power plant.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Gold values were reported from a quartz vein which cuts Late Jurassic quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. The old workings are located on the north side of Hayward Lake about 0.8 kilometres up the Stave River from the Ruskin power plant. No other information is available.

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE003**

NATIONAL MINERAL INVENTORY:

NAME(S): **INDIAN ARM GRANITE QUARRY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 31 N
LONGITUDE: 122 54 35 W
ELEVATION: 75 Metres

NORTHING: 5472885
EASTING: 506549

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry is located on Lot 872, near Elsay Creek, on the west shore of Indian Arm.

COMMODITIES: Aggregate Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Granite quarry.
MINERALIZATION AGE: Lower Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R15 Crushed rock R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP:
GRADE: Greenschist

CAPSULE GEOLOGY

The Gilpin-Nash Company Ltd. started quarrying operations in August 1949, on Lot 872, near Elsay Creek, on the west shore of Indian Arm.
Granite of Early to mid-Cretaceous age of the Jurassic to Tertiary Coast Plutonic Complex was quarried to produce jetty-rock and rubble but no production figures are available. The granite is similar to that worked at the Croker Island Quarry (092GSE034). However, the sheeting is thinner and the jointing is irregular and more closely spaced.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/04

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

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GSC MEM 335; 24E, pp. 125-138
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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE005**

NATIONAL MINERAL INVENTORY:

NAME(S): **RICHMIX FIRECLAY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit Underground

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 04 03 N
LONGITUDE: 122 11 39 W
ELEVATION: 180 Metres

NORTHING: 5435272
EASTING: 558861

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned open pit workings, north of Kilgard (Bulletin 30, Fig. 3).

COMMODITIES: Shale Clay

MINERALS

SIGNIFICANT: Shale Clay
MINERALIZATION AGE: Eocene
ISOTOPIC AGE:

DATING METHOD: Fossil

MATERIAL DATED: Palynomorphs

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Sedimentary
TYPE: B06 Fireclay

Unconsolidated
Residual

Industrial Min.

E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Tertiary

GROUP

Unnamed/Unknown Group

FORMATION

Huntingdon

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Shale
Clay

HOSTROCK COMMENTS: Huntingdon Formation is Eocene to Oligocene in age (Geological Survey of Canada Paper 90-1F, pages 103-113).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

Plutonic Rocks

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Richmix Company mined shale from the Fireclay seam on the southeast slope of Sumas Mountain. The property adjoins the Clayburn Company property (092GSE004). The open pit workings and the underground portals are located north and northeast of Kilgard. Until 1950, the room-and-pillar method of underground mining was used. When the seam was worked out to the property boundaries, the company retreated up the slope, pulling pillars. As the surface was reached, underground mining was stopped, the overburden was bulldozed off, and strip mining methods were implemented.

The Fireclay seam and Tertiary shales mined are part of a sedimentary sequence that caps Jurassic to Tertiary granitic rocks of the Coast Plutonic Complex on Sumas Mountain. The shales are thought to be part of the Eocene-Oligocene Huntingdon Formation.

The Fireclay seam was deposited in an arc-shaped basin that averages about 500 metres east and west. The seam consists of dark grey, non-calcareous shale. The material is classed as a moderately dense firing refractory clay.

Some of the fireclay was exported raw to the United States and the rest was made into refractories in local plants. No production figures are available.

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EMPR BULL *30, pp. 8-9, 22-24
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335; 24E, pp. 125-138
GSC P 90-1F, pp. 95-113
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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 250
REPORT: RGEN0100

BIBLIOGRAPHY

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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE006**

NATIONAL MINERAL INVENTORY:

NAME(S): **PORT HANEY CLAY**, HANEY BRICK

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 12 33 N
LONGITUDE: 122 35 49 W
ELEVATION: 10 Metres

NORTHING: 5450786
EASTING: 529357

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Port Haney Brick Company Ltd., in Haney (Bulletin 30, Fig. 1, occurrence # 50).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay

Massive
Sedimentary

Industrial Min.
E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
COMMENTS: Quaternary surface clay.

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Port Haney Brick Company Ltd., in Haney, produced building tile, drain tile and flue-lining from local surface clay but no production figures are available.

The grey, non-calcareous surface clay is fine grained, very plastic and hosts 46.2 per cent water. The average shrinkage for the clay when drying was 11.7 per cent. An analysis of the clay yielded 58.5 per cent SiO₂, 21.1 per cent Al₂O₃, 8.6 per cent Fe₂O₃, 6.5 per cent CaO, 0.5 per cent MgO and ignition loss of 4.8 per cent (Minister of Mines Annual Report 1908, page 186).

BIBLIOGRAPHY

EMPR AR *1908-186; 1947-207; 1948-184; 1949-250; 1950-22; 1951-215;
1952-250; 1953-189; *1961-143; 1967-302; 1968-298
EMPR BULL *30, p. 10
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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE007**

NATIONAL MINERAL INVENTORY:

NAME(S): **PITT RIVER QUARRY**, SHERIDAN HILL QUARRY

STATUS: Past Producer Open Pit

MINING DIVISION: New Westminster

REGIONS: British Columbia

NTS MAP: 092G07E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 17 14 N

NORTHING: 5459441

LONGITUDE: 122 39 45 W

EASTING: 524543

ELEVATION: 30 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: The quarry is located at Sheridan Hill on the east side of the Pitt River.

COMMODITIES: Granite

Dimension Stone

Aggregate

Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Quartz diorite quarry.

MINERALIZATION AGE: Jurassic

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Industrial Min.

TYPE: R03 Dimension stone - granite

R15 Crushed rock

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Mesozoic-Cenozoic

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

Quartz diorite of Jurassic age of the Jurassic to Tertiary Coast Plutonic Complex was quarried for jetties, dykes and concrete aggregate on the east bank of the Pitt River, immediately south of the river's confluence with Munro Creek.

The quarry was in production as early as 1900, and was operated to 1959 by Gilley Brothers Ltd. Evans, Coleman & Evans Ltd. took over the operation in 1960 before being acquired by Ocean Cement Ltd. in 1964.

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EMPR AR 1900-934, 938; 1926-327; 1935-G31; 1939-113; 1941-94;
1942-92; 1943-87; 1946-208; 1949-247; 1950-218; 1951-215;
1952-249; 1953-186; 1954-177; 1955-91; 1956-150; 1957-78; 1958-87;
1961-142; 1962-148; 1963-139; 1964-182; 1967-301; 1968-297
EMPR GEM 1969-385; 1970-493; 1971-457; 1972-581; 1973-541; 1974-376
GSC MAP 1151A; 1153A; 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-101
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of
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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE008**

NATIONAL MINERAL INVENTORY:

NAME(S): **STANDARD**, LINDA, BB

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 20 N
LONGITUDE: 122 35 11 W
ELEVATION: 180 Metres

NORTHING: 5472623
EASTING: 530006

LOCATION ACCURACY: Within 500M

COMMENTS: Main showing on the west shore of Pitt Lake, about 24 kilometres north of the Pitt River bridge (Assessment Report 8873, Figure 2).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Galena Chalcopyrite
ASSOCIATED: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 0076 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: The veins, 0.05 to 0.30 metres wide, are traceable for 76 metres.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Hornblende Diorite
Amphibolite Dike

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: MAIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1980
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 285.2500 Grams per tonne
Gold 45.4000 Grams per tonne
Copper 0.4100 Per cent

COMMENTS: A selected sample from main showing.
REFERENCE: Assessment Report 8873.

CAPSULE GEOLOGY

The Standard workings occur from 120 to 180 metres elevation on the west side of Pitt Lake, about 24 kilometres north of the Pitt River bridge.

Several narrow, parallel quartz-filled fractures were continuously traceable (as of the 1947 work program) for 76 metres in several open cuts, a short crosscut and drift and a shallow shaft. Mineralization occurs in hornblende diorite of the Jurassic to Tertiary Coast Plutonic Complex. Joints are filled by narrow quartz veins or highly sheared amphibolite dykes. The quartz is mineralized with abundant pyrite and minor associated chalcopyrite and galena. The veins range from 5 to 30 centimetres in width.

In 1947, samples of the mineralized quartz veins assayed 4.8 to 51.0 grams per tonne gold and 28.3 to 226.8 grams per tonne silver (Minister of Mines Annual Report 1947, page 179). In 1980, a selected sample from the main showing assayed 45.49 grams per tonne gold, 285.25 grams per tonne silver and 0.41 per cent copper (Assessment Report 8873).

The Standard group of claims were staked in 1934 by E.C. Richardson and associates. This group was still held by Richardson

CAPSULE GEOLOGY

and associates in 1947, when some work was done to extend a shaft and adit that were part of the workings that existed at 120 to 180 metres elevation. In 1950, owners E.C. Richardson and W.A. Thompson drove an adit 62 metres westerly to explore the downward extension of two narrow veins. In 1980, Rodeo Resources conducted work on claims covering the Standard workings and a larger surrounding area. The owners in 1980 were B. Lang, E.C. Richardson and B. Langston. Work consisted of 5 trenches on the "main showing" area of the Linda claim, 135 soil samples and 13 silt samples. See Assessment Report 8873 for further details of the work history of the Standard property.

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EMPR ASS RPT *8873
EMPR EXPL *1980-178
EMPR PF (Claim Location Map)
GSC MAP 8-1956; 1151A; 1153A; 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-107
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DATE CODED: 1985/07/24
DATE REVISED: 1998/12/22

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

The average assay of 900 samples, taken throughout the underground workings on the North vein, was 1.99 grams per tonne gold, 146 grams per tonne silver and 3.9 per cent copper (Minister of Mines Annual Report 1927, page 366).

The Viking Mining Company Ltd., produced 179 tonnes in 1916, with an average grade of 40.3 grams per tonne silver and 2.88 per cent copper. The Pitt Mining Company Ltd. attempted, unsuccessfully, to place the mine back into production between 1927 and 1929.

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1915-301,302; 1916-519; *1923-260; 1924-257; 1925-293; 1926-324;
*1927-366,367; 1928-389,390,522; 1929-398; 1930-313

EMPR ASS RPT 4862, 7881, *18897

EMPR FIELDWORK 1980, pp. 165-184

EMPR PF (2 claim sheet maps, 1926; Carmichael, H. (1926): Summary of Viking Group; Assays of raw ore and concentrates, 1926)

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GSC MAP 8-1956; 1069A; 1151A; 1153A; 1386A

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Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/29

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE010**

NATIONAL MINERAL INVENTORY:

NAME(S): **JUBILEE**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 22 13 N
LONGITUDE: 122 35 51 W
ELEVATION: 15 Metres

NORTHING: 5468697
EASTING: 529221

LOCATION ACCURACY: Within 1 KM

COMMENTS: Old workings located on the west shore of Pitt Lake, near the waterline and the mouth of the lake.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

The Jubilee Group was situated on the west side of Pitt Lake, near the mouth. The showing was prospected and trenched in 1900. The old workings are located along the waterline and consist of an open cut and a 9.0 metre shaft. The showing consists of a quartz vein which cuts granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The vein is sparsely mineralized with pyrite and chalcopyrite.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE011**

NATIONAL MINERAL INVENTORY:

NAME(S): **CLOVER**, CLOVER 1-3, BLACKSMITH

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 18 29 N
LONGITUDE: 122 36 35 W
ELEVATION: 20 Metres

NORTHING: 5461775
EASTING: 528369

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located on the east bank of Pitt River about 10 kilometres north of the railway bridge.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks	
METAMORPHIC TYPE: Regional	RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The four claims (Clover 1-3, Blacksmith) are located a few hundred metres from the east shore of the Pitt River. An outcrop of granodiorite rises abruptly above Pitt Meadows. Prospecting in the area revealed sparse, disseminated mineralization consisting of minor chalcopyrite and molybdenite. The mineralization is hosted within granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. Local, small workings exhibit sporadic malachite staining.

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GSC MEM 335
GSC P 90-1F, pp. 95-107
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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE012**

NATIONAL MINERAL INVENTORY:

NAME(S): **ST. PAUL**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 19 N
LONGITUDE: 122 35 03 W
ELEVATION: 20 Metres

NORTHING: 5472593
EASTING: 530168

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located about 8.0 kilometres from the mouth of Pitt Lake, along the west shore.

COMMODITIES: Copper Gold

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Mesozoic-Cenozoic

Coast Plutonic Complex

LITHOLOGY: Hornblende Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1900

COMMODITY

GRADE

Gold

30.0000

Grams per tonne

Copper

4.0000

Per cent

COMMENTS: Selected sample.

REFERENCE: Minister of Mines Annual Report 1900, page 938.

CAPSULE GEOLOGY

The St. Paul claim was staked early in 1900 to cover a quartz vein, hosting pyrite and chalcopyrite. The vein cuts hornblende diorite of the Jurassic to Tertiary Coast Plutonic Complex. The vein is situated 6 to 8 metres above the waterline on the west shore of Pitt Lake. A selected sample is reported to have assayed about 30 grams per tonne gold and 4 per cent copper (Minister of Mines Annual Report 1900, page 938).

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GSC MAP 8-1956; 1069A; 1151A; 1153A; 1386A
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GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE013**

NATIONAL MINERAL INVENTORY:

NAME(S): **RACCOON ISLAND**, DOT FRACTION

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 20 25 N
LONGITUDE: 122 54 20 W
ELEVATION: 8 Metres

NORTHING: 5465288
EASTING: 506861

LOCATION ACCURACY: Within 500M

COMMENTS: Location of open cut near the centre of Racoon Island, 7.6 metres above tide water in Indian Arm.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Diorite
Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1935
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Gold		1.3700	Grams per tonne

COMMENTS: A selected sample of oxidized quartz.
REFERENCE: Property File - Richmond, M.E. (1935).

CAPSULE GEOLOGY

The Dot Fraction claim is located on Racoon Island in Indian Arm. The island is underlain by granitic rocks of the Jurassic to Tertiary Coast Plutonic Complex. Several open cuts and a 2.4 metre shaft occur near the centre of the island towards the northern shore. The open cut exposes oxidized quartz. A selected sample, in 1935, from a small pile of this material assayed 1.37 grams per tonne gold (Property File - Richmond, M.E. (1935)). The oxidized quartz hosts pyrite mineralization which occurs in fine-grained dioritic rocks near a basic phase of the intruding granodiorite.

BIBLIOGRAPHY

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GSC MAP 8-1958; 1069A; 1151A; 1153A; 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

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RUN TIME: 09:30:14

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BIBLIOGRAPHY

British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/02/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE014**

NATIONAL MINERAL INVENTORY:

NAME(S): **P, JA, X100**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 16 34 N
LONGITUDE: 122 28 47 W
ELEVATION: 240 Metres

NORTHING: 5458281
EASTING: 537844

LOCATION ACCURACY: Within 500M

COMMENTS: Main showing on P 6 claim (Assessment Report 2601, Map 1).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal
SHAPE: Irregular
MODIFIER: Faulted
DIMENSION: 0009 Metres
COMMENTS: Main showing.

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Dioritic Intrusive
Quartz Diorite
Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
COMMENTS: Located at the south end of the Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: MAIN

REPORT ON: N

CATEGORY:	Assay/analysis	YEAR:	1975
SAMPLE TYPE:	Grab		
COMMODITY	GRADE		
Silver	3.7700	Grams per tonne	
Copper	0.1700	Per cent	

COMMENTS: Best of 3 grab samples.

REFERENCE: Stevenson, 1975, page 3, in Prospectus - Rebel Developments Ltd.

CAPSULE GEOLOGY

Sparse sulphide mineralization is exposed, in a 9 metre wide outcrop, 500 metres southeast of the Alouette River, and 1.2 kilo-metres due south of the south end of Alouette Lake.

The showing is underlain by dioritic intrusive rock, comprised of coarse grained pyroxene and feldspar, within the Jurassic to Tertiary Coast Plutonic Complex. Medium grained Late Jurassic quartz diorite and granodiorite outcrop nearby. The dioritic outcrop is cut by a northwest trending zone of fault gauge 0.15 to 0.60 metres in width.

The dioritic intrusive and the fault gouge are mineralized with disseminated pyrrhotite, pyrite and locally chalcopyrite. Three grab samples assayed up to 0.17 per cent copper and 3.77 grams per tonne silver (Propert File - Stevenson, W.G. (1975)).

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EMPR FIELDWORK 1980, pp. 165-184
EMPR GEM 1970-247
EMPR PF (Stevenson, W.G (1975): Geological Report on the X100 Mineral Claim, in Prospectus - Rebel Developments Ltd.)
GSC MAP 8-1956; 1069A; 1151A; 1386A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/29

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE015**

NATIONAL MINERAL INVENTORY:

NAME(S): **ST. JOHN**, WIDGEON CREEK

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 25 38 N
LONGITUDE: 122 38 05 W
ELEVATION: 640 Metres

NORTHING: 5475014
EASTING: 526488

LOCATION ACCURACY: Within 5 KM

COMMENTS: Location uncertain, based on ambiguous description (Minister of Mines Annual Report 1900, page 938).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

DIMENSION:

STRIKE/DIP: 360/90

TREND/PLUNGE:

COMMENTS: The vein is 0.05 to 0.10 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Upper Jurassic

Coast Plutonic Complex

LITHOLOGY: Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex is Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A vein outcrops on a mountainside, 460 metres above the headwaters of Widgeon Creek. The vein is hosted within Late Jurassic diorite of the Jurassic to Tertiary Coast Plutonic Complex.

The vein varies from 0.05 to 0.10 metres in width and strikes north with a near vertical dip. Mineralization consist of abundant chalcopyrite and pyrite in a gangue of quartz.

The showing was prospected and trenched by E.F. Holt in 1900.

BIBLIOGRAPHY

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EMPR FIELDWORK 1980, pp. 165-184

GSC MAP 8-1956; 1069A; 1151A; 1153A; 1386A

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DATE CODED: 1985/07/24

DATE REVISED: 1990/05/29

CODED BY: GSB

REVISED BY: PSF

FIELD CHECK: N

FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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MINFILE NUMBER: **092GSE016**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOW**, WING

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 13 27 N
LONGITUDE: 122 10 58 W
ELEVATION: 861 Metres

NORTHING: 5452697
EASTING: 559505

LOCATION ACCURACY: Within 500M

COMMENTS: Centred on Wing 1 to 8 claim group (Claim Sheet Map 92G/01E).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Pyrite and chalcopyrite mineralization is exposed in the headwaters of Pattison Creek, 4 kilometre north-northeast of Dewdney Peak. The mineralization is hosted within Late Jurassic quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/05/29

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE016**

MINFILE NUMBER: **092GSE017**

NATIONAL MINERAL INVENTORY:

NAME(S): **MILLIE**, APRIL, JUNE

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 25 43 N
LONGITUDE: 122 34 26 W
ELEVATION: 500 Metres

NORTHING: 5475191
EASTING: 530898

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the west side of Pitt Lake, opposite Goose Island (Assessment Report 3907).

COMMODITIES: Copper Nickel

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Magnetite Pyrrhotite

COMMENTS: Possibly pentlandite.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Unknown
TYPE: M02 Tholeiitic intrusion-hosted Ni-Cu
SHAPE: Irregular
MODIFIER: Faulted

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Peridotite
Hornblendite
Hornblende Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1972

SAMPLE TYPE: Grab

COMMODITY

GRADE

Copper

0.1800

Per cent

Nickel

0.1400

Per cent

REFERENCE: Assessment Report 3907.

CAPSULE GEOLOGY

The Millie and April claims are located on the west side of Pitt Lake, opposite Goose Island. The claims are underlain by hornblende diorite of the Jurassic to Tertiary Coast Plutonic Complex. A fault is reported to traverse the property, exposing associated hornblendite and peridotite intrusives. Streaks of chalcopyrite, pyrite, magnetite, pyrrhotite and possibly pentlandite were observed in the ultramafics.

In 1972, a selected sample assayed 0.18 per cent copper and 0.14 per cent nickel (Assessment Report 3907).

According to Assessment Report 3907, a 24-metre adit was driven on a quartz-filled fissure vein from a point on the lakeshore. According to Assessment Report 8873, this adit is only 15 metres long and was thought to have been driven by Jim Baily in 1934. In 1971, some minor trenching was done above and to the northwest of this adit. In 1972, Yukon Gold Placers Limited conducted geological mapping and a magnetometer survey. The area was staked as the BB 1 to 13 claims totalling 182 units and a work program was carried out in 1980 in conjunction with work on the Standard property claims (see MINFILE 092GSE008). The tunnel was sampled in 1980 and a short geochemical line was completed. Results were considered negligible for gold and silver.

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RUN TIME: 09:30:14

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ENERGY AND MINERALS DIVISION

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REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR GEM 1972-273
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DATE CODED: 1985/07/24
DATE REVISED: 1998/12/22

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

hematite occur in the stockwork and to a lesser extent in the enclosing host rock. Various grab samples assayed up to 3.31 per cent copper, 1.39 per cent zinc and 0.03 per cent bismuth (Assessment Report 6366, page 10). One drill hole section assayed 0.53 per cent copper between 29.9 and 34.6 metres depth (Assessment Report 6366, page 10).

The deposit was evaluated by various operators searching for Kuroko-type massive sulphides between 1969 and 1980.

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EMPR ASS RPT 5244, *6366, *8966
EMPR EXPL 1977-118
EMPR FIELDWORK 1980, pp. 165-184
EMPR GEM 1974-189,190
GSC MAP 8-1956; 1069A; 1151A; 1386A
GSC MEM 335, pp. 35, 36
GSC P 86-1B, pp. 715-720; 90-1F, pp. 95-107
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Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia
Chevron File

DATE CODED: 1985/07/24
DATE REVISED: 1990/05/30

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE019**

NATIONAL MINERAL INVENTORY:

NAME(S): **SPANAR**, SKY, NUMBER 1 SHOWING,
CRICKMAR

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:
LATITUDE: 49 18 50 N
LONGITUDE: 122 23 18 W
ELEVATION: 910 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Portal of adit (Assessment Report 6325, Figure 3).

Underground
MINING DIVISION: New Westminster
UTM ZONE: 10 (NAD 83)
NORTHING: 5462530
EASTING: 544457

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1977
SAMPLE TYPE:	Chip		
COMMODITY		GRADE	
Silver		18.3000	Grams per tonne
Gold		13.4000	Grams per tonne

COMMENTS: Taken across 0.5 metre along cliff.
REFERENCE: Assessment Report 6325, page 8.

CAPSULE GEOLOGY

The Spanar showing is located on the east bank of Kearsley Creek, 1.1 kilometres southwest of the peak of Mount Crickmar. In 1938, native gold was mined from the Oro (092GSE041), near the headwaters of Seventynine Creek between Alouette and Stave Lake. Prior to operations closing in 1939, some high-grade shipments were made from the mine. During 1976, the Spanar claims were staked 1500 metres south of Mount Crickmar. An old adit was subsequently relocated and extended about 5 metres. An induced polarization survey was also carried out. Between 1981 and 1987, Skyrocket Exploration and Resources Inc. held a large claim block between Stave and Alouette lakes. Exploration revealed spotty gold soil geochemical values, however, later that year a significant gold value was obtained from a major, northeast trending shear zone. Follow-up sampling and percussion drilling work was done in and around Kearsley Creek in 1984. During 1988 and 1989, soil and rock sampling surveys were carried out on the Oro and Star claims. At the Spanar occurrence, a 5.5-metre long trench (V cut) and a 7.3-metre long adit were excavated earlier this century.

The majority of the region is underlain by granodiorite to diorite intrusions of the Jurassic to Cretaceous Coast Plutonic Complex. Roof pendants of Paleozoic Twin Island Group and Jurassic Harrison Lake Formation occur throughout the area.

In the area, mineralization was noted to occur in three distinct modes: 1) quartz-pyrite (plus/minus chalcopyrite and magnetite) stringers and veins up to 6 centimetres wide in unaltered quartz diorite, 2) quartz-pyrite lenses up to 0.40 metres wide in unaltered

CAPSULE GEOLOGY

quartz diorite and 3) silicified or calcsilicate altered shear zones up to 3 metres wide containing pyrite and trace chalcopyrite.

Several small quartz-filled shear zones are developed in Late Jurassic quartz diorite of the Coast Plutonic Complex. The shear zones and surrounding quartz diorite are mineralized with pyrite.

A sample, from a 10 centimetre wide shear zone exposed in the north wall of an adit, assayed 56 grams per tonne gold (Assessment Report 16604, page 6). A chip sample, taken across 0.5 metre, 2 metres south of the portal of the adit, assayed 13.4 grams per tonne gold and 18.3 grams per tonne silver (Assessment Report 6325, page 8).

BIBLIOGRAPHY

EMPR ASS RPT *6325, 9450, 1040, *10040, 24209
EMPR EXPL 1977-117
EMPR FIELDWORK 1980, pp. 165-184
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GSC MEM 335
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GCNL #207,#231,#245, 1983; #20,#148, 1984; #105,#126, 1985
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DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE020**

NATIONAL MINERAL INVENTORY:

NAME(S): **SAM**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 26 47 N
LONGITUDE: 122 32 46 W
ELEVATION: 320 Metres

NORTHING: 5477180
EASTING: 532901

LOCATION ACCURACY: Within 1 KM

COMMENTS: Location just east of Sam claim group, on the west side of Pitt Lake
(Assessment Report 4834, Map 1).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stockwork
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Hornblende Diorite
Quartz Diorite
Migmatite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP:
GRADE: Greenschist

CAPSULE GEOLOGY

The Sam showing is located on the west side of Pitt Lake, across from Goose Island. The area is underlain by quartz diorite and hornblende diorite of the Jurassic to Tertiary Coast Plutonic Complex. Migmatite occurs in the northeastern part of the property. Pyrite is common and occurs as fine disseminations along joints and fractures. Minor chalcopyrite and malachite were observed in a fault just east of the property.

Kerry Mining Ltd. collected 930 soil samples from the Sam 1 to 16 claims in 1973. The BB claims of Assessment Report 8873 cover much of the same area as the Sam claims but this work centred on the Standard prospect (092GSE008) and the Millie showing (092GSE017). The Sam showings, being "east" of the Sam property, were presumably closer to Pitt Lake and/or Defrauder Creek.

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GSC MAP 8-1956; 1069A; 1151A; 1153A; 1386A
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DATE CODED: 1985/07/24
DATE REVISED: 1998/12/22

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE021**

NATIONAL MINERAL INVENTORY:

NAME(S): **WALDEN**, BLUE MOUNTAIN, KANAKA CREEK

STATUS: Past Producer Open Pit

MINING DIVISION: New Westminster

REGIONS: British Columbia

NTS MAP: 092G08W

BC MAP:

LATITUDE: 49 16 02 N

LONGITUDE: 122 25 34 W

ELEVATION: 740 Metres

LOCATION ACCURACY: Within 5 KM

COMMENTS: Location based on description in Assessment Report 14713, page 4.

UTM ZONE: 10 (NAD 83)

NORTHING: 5457321

EASTING: 541751

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Mesozoic-Cenozoic

Coast Plutonic Complex

LITHOLOGY: Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DUMP

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1925

SAMPLE TYPE: Bulk Sample

COMMODITY

GRADE

Gold

2650.0000 Grams per tonne

COMMENTS: Sorted ore.

REFERENCE: Assessment Report 14713, page 4.

CAPSULE GEOLOGY

Gold is reported to have been mined, up to 1925, from quartz veins located in the headwaters of Kanaka Creek, in the vicinity of Blue Mountain. The area, underlain by Jurassic to Tertiary Coast Plutonic Complex granitic rocks, was initially staked and worked by George and John Walden prior to 1920. The in the 1920's the area was restaked.

Sorted ore is reported, in 1925, to have graded up to 2650 grams per tonne gold (Assessment Report 14713, page 4).

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/05/31

CODED BY: PSF

FIELD CHECK: N

DATE REVISED: / /

REVISED BY:

FIELD CHECK:

MINFILE NUMBER: **092GSE022**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAST NEW WESTMINSTER CLAY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:
LATITUDE: 49 12 59 N
LONGITUDE: 122 55 05 W
ELEVATION: 30 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Coughlan and Sons Co., near Queens Park in East New Westminster
(Bulletin 30, Fig. 1, occurrence #43).

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

NORTHING: 5451514
EASTING: 505968

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay
Massive Sedimentary
Industrial Min. E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Recent

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent surficial glacial clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

Coughlan and Sons Co., located in east New Westminster near Queens Park, produced brick and drain tile from local deposits of surficial glacial clay.

The deposits of clay consist of grey, rather sandy clay which is lency in form. The clay grades laterally into sand in many places. The clay has a relatively short firing range temperature and fires red to reddish-brown in colour making it suitable for structural products.

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DATE CODED: 1990/01/07
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSE023**

NATIONAL MINERAL INVENTORY:

NAME(S): **SURREY BRICK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 07 35 N
LONGITUDE: 122 44 04 W
ELEVATION: 30 Metres

NORTHING: 5441540
EASTING: 519374

LOCATION ACCURACY: Within 500M

COMMENTS: Surrey Brick and Tile Co. open pit, 1.6 kilometres north of Cloverdale (Bulletin 30, Fig. 1, occurrence #49).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay

Massive
Sedimentary

Industrial Min.
E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Surrey Brick and Tile Company is located 1.6 kilometres north of Cloverdale. The company produced common brick and drain tile from local deposits of surface clay.

The top bed of a buff coloured soft clay deposit was found to be suitable for common brick, hollow tile and drain tile. The clay is plastic with 29 per cent water, and an average shrinkage characteristic of 7.6 per cent.

BIBLIOGRAPHY

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GSC MEM 335
GSC P 90-1F, pp. 95-107
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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

basement series. The eastern limit of the fireclay seam occurs at the contact between the sedimentary series and the basement rocks. In this area, the fireclay outcrops at the surface with 10 to 21 metres of kaolinized altered material between it and the basement rock. The shale beds have been mined for use in brick manufacturing and as an additive in cement production.

The fireclay seam was deposited in a basin that averages about 500 metres east and west, and is of unknown length north and south. This basin is arc-shaped, concave to the west. The fireclay is classed as a moderately dense firing refractory fireclay.

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- EMPR BULL *30, pp. 19-25
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- EMPR OF 1992-1; 1992-9; 1994-1
- GSC MAP 8-1956; 1069A; 1151A; 1386A
- GSC MEM 335; 24E, pp. 125-138
- GSC P 90-1F, pp. 95-107
- GAC-MAC Field Trip Guidebook, Trip 1, May 11-13, 1983
- WWW <http://www.clayburngroup.com>
- Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
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DATE CODED: 1985/07/24
DATE REVISED: 1990/02/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE025**

NATIONAL MINERAL INVENTORY:

NAME(S): **BURNABY LAKE DIATOMITE**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 14 37 N
LONGITUDE: 122 56 47 W
ELEVATION: 15 Metres

NORTHING: 5454539
EASTING: 503902

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Burnaby Lake, Burnaby, located north of the Trans Canada Highway 1.

COMMODITIES: Diatomite

MINERALS

SIGNIFICANT: Diatomite
COMMENTS: Siliceous, fresh water diatomaceous mud.
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: F06 Lacustrine diatomite
DIMENSION: 0008 Metres
COMMENTS: The diatomaceous mud is 8 metres thick.

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Diatomite

HOSTROCK COMMENTS: Diatomaceous mud.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

Burnaby Lake, located in central Burnaby, is a crescent shaped lake about 4.0 kilometres long and about 0.8 kilometres wide. The bottom of the lake is covered with up to 7.6 metres of diatomaceous mud. This deposit is similar to the Trout Lake deposit (092GSW016). The calcined material is pink to buff in colour, with appreciable amounts of ash and fine grit. Small cylindrical Melosira diatoms predominate. Careful treatment of the top 1.8 to 2.4 metres of diatomaceous mud should yield an efficient sugar filter aid, once the grit has been removed. In 1932, a few tonnes of mud were excavated from Burnaby Lake by Coast Quarries Limited. About one tonne was shipped to the Mines Branch, Ore Dressing Laboratories, in Ottawa for treatment.

BIBLIOGRAPHY

EMPR AR 1920-219; *1947-211
GSC MAP 1069A; 1151A; 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/01/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE026**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUSKIN CLAY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 36 N
LONGITUDE: 122 25 48 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447252
EASTING: 541543

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Heaps Brick Company Ltd., in Ruskin from Bulletin 30,
Figure 1 (occurrence #52).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay

Massive
Sedimentary

Industrial Min.

E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Heaps Brick Company Ltd., is located in Ruskin on the north side of the Fraser River. The company produced common brick and drain tile from local surface clay. The clay deposit comprised 1.8 to 2.4 metres of grey clay overlying blue clay. The clay was fairly plastic with 31.8 per cent water, rapid drying characteristics and shrinkage of 6.6 per cent.

BIBLIOGRAPHY

EMPR BULL *30, pp. 12,16,49
GSC MAP 1386A
GSC MEM 47, p. 54; 335
GSC P 90-1F, pp. 95-107
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DATE CODED: 1985/07/24
DATE REVISED: 1989/01/10

CODED BY: GSB
REVISED BY: KKD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE027**

NATIONAL MINERAL INVENTORY:

NAME(S): **PORT MOODY**, BURRARD CLAY

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 17 29 N
LONGITUDE: 122 51 14 W
ELEVATION: 10 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5459859
EASTING: 510624

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Port Moody - Burrard Brick and Tile Co., Pleasantside
(Bulletin 30, Fig. 1, occurrence #40).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated Massive
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Unnamed/Unknown Group Undefined Formation

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fraser Lowland
TERRANE: Overlap Assemblage

CAPSULE GEOLOGY

The Pacific Clay Products Ltd. and the Burrard Brick and Tile Co., is located in Pleasantside on the north side of Port Moody Inlet. These companies produced common brick and facebrick from local surface clay. The blue clay was very plastic and non-calcareous. The clays have relatively short firing temperature ranges, fire red to reddish-brown in colour and are suitable for structural products.

BIBLIOGRAPHY

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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE028**

NATIONAL MINERAL INVENTORY:

NAME(S): **BLUE MOUNTAIN SHALE** WHONOCK SHALE, LOT 3210

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 16 30 N
LONGITUDE: 122 26 20 W
ELEVATION: 730 Metres

NORTHING: 5458178
EASTING: 540815

LOCATION ACCURACY: Within 500M

COMMENTS: Red shale deposit, on Lot 3210, on Blue Mountain (Bulletin 30, Figure 8).

COMMODITIES: Shale Clay

MINERALS

SIGNIFICANT: Shale Clay

COMMENTS: Mudstone.

MINERALIZATION AGE: Lower Cretaceous

ISOTOPIC AGE:

DATING METHOD: Fossil

MATERIAL DATED: Spores

DEPOSIT

CHARACTER: Massive Layered
CLASSIFICATION: Sedimentary Syngenetic Industrial Min.
TYPE: R02 Expanding shale
SHAPE: Tabular
DIMENSION: 30 Metres STRIKE/DIP:
COMMENTS: Lower Cretaceous (Albian) age date from Geological Survey of Canada Paper 91-1A, page 238. Mudstone/shale unit is 15 to 30 metres thick.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Lower Cretaceous

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Massive Tuffaceous Mudstone
Shale
Boulder Conglomerate
Pebble Lithic Wacke
Pebble Conglomerate
Lithic Arenite
Sandstone
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

RELATIONSHIP: Post-mineralization GRADE: Greenschist

CAPSULE GEOLOGY

A sedimentary outlier, containing beds of mudstone/shale, outcrops over a 15 square kilometre area on Blue Mountain, 3 kilometres east-southeast of the south end of Alouette Lake and 11.2 kilometres north of the village of Whonock.

The outlier contains up to 150 metres of moderately to poorly indurated conglomerates, sandstones and mudstones/shales of the Lower Cretaceous Gambier Group unconformably overlying Jurassic(?) diorite of the Jurassic to Tertiary Coast Plutonic Complex. The strata dip 5 to 25 degrees south to southwest. The sequence consists of a basal boulder-rich conglomerate, 5 to at least 60 metres thick, overlain by pebbly lithic wacke or by 3 metres of bluish-grey sandy shale that contains abundant biotite flakes. This succession is overlain by a bed of red-brown blocky mudstone/shale, 15 to 30 metres thick. The mudstone is dense, massive and slightly tuffaceous with rare wispy laminae. The unit fines upward from a siltstone rich base to claystone in the upper few metres. The mudstone is overlain by up to 65 metres of interbedded pebble conglomerate, lithic arenite and mudstone within repeated fining upward cycles generally 1 to 2 metres thick.

Ceramic tests carried out on samples of the mudstone\shale indicate that it could be used for manufacturing facebrick, common brick or sewer pipe (Geological Survey of Canada Memoir 65, pages 2 to 15).

Blue Mountain Explorations Inc. drilled nine diamond drill-holes in 1990 to define reserves of shale for open pit mining.

MINFILE NUMBER: **092GSE028**

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 282
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR BULL *30, pp. 26-29
GSC MEM * 65, pp. 2-15; 335, pp. 69-70
GSC P 90-1F, pp. 95-107; * 91-1A, pp. 229-240
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of
Canada (Cordilleran Section)

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/20

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE029**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILVERDALE CLAY**

MINING DIVISION: New Westminster

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 08 53 N
LONGITUDE: 122 23 58 W
ELEVATION: 10 Metres

NORTHING: 5444088
EASTING: 543796

LOCATION ACCURACY: Within 500M

COMMENTS: Located opposite Silverdale on the south side of the Fraser River along the CNR railway tracks (Bulletin 30, Figure 1, occurrence #53).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated Massive
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

A deposit of laminated grey clay is located on the south side of the Fraser River along the CNR railway track, opposite Silverdale. The clay is very plastic with an average shrinkage characteristic of 7.0 per cent. Testing in 1914, found this clay to be suitable for dry press brick and drain tile (Geological Survey of Canada, Memoir 47, page 54).

BIBLIOGRAPHY

EMPR BULL *30, p. 49
GSC MAP 1386A
GSC MEM *47, p. 54; 335
GSC P 90-1F, pp. 95-107
GSC SUM RPT 1913, p. 232
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
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DATE CODED: 1990/01/10
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSE030**

NATIONAL MINERAL INVENTORY:

NAME(S): **BARNET BRICK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 17 19 N
LONGITUDE: 122 56 30 W
ELEVATION: 45 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5459542
EASTING: 504242

LOCATION ACCURACY: Within 500M

COMMENTS: Location for the shale and clay of Mainland Clay Products in Barnet at Kask's Corner (Bulletin 30, Figure 1, occurrence #39).

COMMODITIES: Shale Clay

MINERALS

SIGNIFICANT: Shale Clay
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Layered Unconsolidated
CLASSIFICATION: Sedimentary Residual Industrial Min.
TYPE: R02 Expanding shale

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Tertiary Unnamed/Unknown Group Undefined Formation

LITHOLOGY: Shale
Clay

HOSTROCK COMMENTS: Tertiary Kilgard shale.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A shale quarry, located in Barnet at Kask's Corner, was mined by Mainland Clay Products which produced common brick. The Tertiary Kilgard shale is greenish sandy shale which averaged about 1.8 metres in thickness. Overlying the shale is a non-calcareous, yellowish-grey clay. Combining the clay and crushed shale produced common brick, hollow tile and face brick.

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EMPR AR *1947-207; 1951-216; 1952-250; 1953-189
EMPR BULL *30, pp. 10,58
GSC MAP 1153A; 1386A
GSC MEM 335
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Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
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DATE CODED: 1990/01/10
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSE031**

NATIONAL MINERAL INVENTORY:

NAME(S): **CLAYBURN CLAY**, HAZEL BRAE - CLAYBURN

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

MINING DIVISION: New Westminster

LATITUDE: 49 04 58 N
LONGITUDE: 122 16 56 W
ELEVATION: 15 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5436906
EASTING: 552413

LOCATION ACCURACY: Within 500M

COMMENTS: Clay deposit in Clayburn (Bulletin 30, Figure 1, occurrence #54 and #55).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated Massive
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Unnamed/Unknown Group Undefined Formation

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fraser Lowland
TERRANE: Overlap Assemblage

CAPSULE GEOLOGY

In Clayburn and at Hazel Brae in Clayburn, a localized deposit of surface blue-grey clay was used to manufacture common brick. The clay was very plastic, with about 30.0 per cent water. It dried well with an average shrinkage characteristic of 6.0 per cent.

BIBLIOGRAPHY

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GSC MAP 1386A
GSC MEM 24E, pp. 125-138,141; *25, p. 98; 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1990/01/10

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE032**

NATIONAL MINERAL INVENTORY:

NAME(S): **SULLIVAN BRICK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 07 12 N
LONGITUDE: 122 48 40 W
ELEVATION: 15 Metres

NORTHING: 5440813
EASTING: 513783

LOCATION ACCURACY: Within 500M

COMMENTS: Located in Sullivan (Bulletin 30, Figure 1, occurrence #48).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay

Massive
Sedimentary

Industrial Min.
E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Vancouver Brick and Tile Company produced common brick from surface clay deposits in Sullivan. The clay was soft, grey to buff in colour, worked well and had good plasticity. The clay was comprised of 29 per cent water and possessed an average shrinkage characteristic of 8.1 per cent. The clay was considered suitable for common brick, hollow tile and drain tile.

BIBLIOGRAPHY

EMPR BULL *30, pp. 12,49
GSC MAP 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/01/10
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSE033**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRIGHTEN QUARRY**, BURRARD INLET

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 21 39 N
LONGITUDE: 122 53 38 W
ELEVATION: 45 Metres

NORTHING: 5467575
EASTING: 507705

LOCATION ACCURACY: Within 500M

COMMENTS: Located in the vicinity of Brighten Beach, on the west side of Indian Arm, opposite the power house.

COMMODITIES: Granite Aggregate Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Granodiorite quarry.
MINERALIZATION AGE: Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R15 Crushed rock R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

Granodiorite was quarried on the west side of Indian Arm, opposite the power house. No production figures are available. The granodiorite is Early to mid-Cretaceous in age within the Jurassic to Tertiary Coast Plutonic Complex and was generally used for jetty rock, rip rap and rubble. The outcrop is highly variable in colour and grain size and is severely shattered with abundant closely spaced fractures.

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DATE CODED: 1985/07/24
DATE REVISED: 1990/01/04

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE035**

NATIONAL MINERAL INVENTORY:

NAME(S): **DEEP COVE QUARRY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 19 59 N
LONGITUDE: 122 56 15 W
ELEVATION: 30 Metres

NORTHING: 5464483
EASTING: 504541

LOCATION ACCURACY: Within 500M

COMMENTS: The quarry is located on the northeast side of Deep Cove in Indian Arm (Industrial Mineral File - Hora, Z.D., 1979).

COMMODITIES: Granite Dimension Stone Aggregate

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Granodiorite quarry.
MINERALIZATION AGE: Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite

R15 Crushed rock

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

An abundant amount of grey coloured, medium-grained granodiorite was quarried from a site along the northeast side of Deep Cove. No production figures are available.

The granodiorite is Early to mid-Cretaceous in age within the Jurassic to Tertiary Coast Plutonic Complex and was quarried extensively for local use as jetty rock and riprap. The grey granodiorite hosts irregular and discontinuous sheet jointing.

BIBLIOGRAPHY

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/04

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE036**

NATIONAL MINERAL INVENTORY:

NAME(S): **GRANITE FALLS QUARRY**, INDIAN RIVER QUARRIES

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 26 57 N
LONGITUDE: 122 51 46 W
ELEVATION: 30 Metres

NORTHING: 5477399
EASTING: 509946

LOCATION ACCURACY: Within 500M

COMMENTS: The quarry is located at the northeast end of Indian Arm at Granite Falls.

COMMODITIES: Granite Dimension Stone Aggregate

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Granodiorite quarry.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite

R15 Crushed rock

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

Jetty rock, riprap and rubble were produced from the Granite Falls quarry. Materials comprise granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The granodiorite is characteristically medium to coarse-grained and is cut by numerous dioritic dykes with closely spaced fractures.

BIBLIOGRAPHY

EMPR AR 1938-F70; 1939-113; 1940-99; 1941-94; 1942-92; 1946-208; 1947-212,213; 1948-184; 1949-247; 1950-218; 1951-215; 1952-249; 1953-185; 1954-176; 1955-91; 1956-150; 1958-87; 1959-153; 1960-137; 1961-142; 1962-148; 1964-182
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GSC MEM 335
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/30

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE037**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUMAS MOUNTAIN**, SUMAS SODASPAR, SUMAS MOUNTAIN FELDSPAR,
SUMAS SODA FELDSPAR

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

MINING DIVISION: New Westminster

LATITUDE: 49 06 09 N
LONGITUDE: 122 10 22 W
ELEVATION: 472 Metres

UTM ZONE: 10 (NAD 83)

LOCATION ACCURACY: Within 500M

NORTHING: 5439180
EASTING: 560381

COMMENTS: Centre of orebody near the headwaters of Wades Creek, between the Fraser and Sumas rivers, 2.25 kilometres west of Taggart Peak and about 10 kilometres north-northeast of the community of Abbotsford (Property File - Stage 1 report by Quality Industrial Minerals & Supply Inc.).

COMMODITIES: Feldspar

MINERALS

SIGNIFICANT: Feldspar
ASSOCIATED: Actinolite Hornblende Chlorite
ALTERATION: Limonite Hematite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Epigenetic Industrial Min.
TYPE: O04 Feldspar-quartz pegmatite
SHAPE: Tabular
MODIFIER: Fractured
DIMENSION: 2000 x 200 x 50 Metres STRIKE/DIP: 360/ TREND/PLUNGE:
COMMENTS: The dike has been traced in outcrop for several kilometres and is up to 200 metres wide. The depth is estimated at 200 metres but a conservative estimate of 50 metres was used to determine reserves.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic	Undefined Group	Harrison Lake	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Feldspar Dike
Dacite
Dacite Porphyry
Andesite
Andesite Porphyry
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Harrison Overlap Assemblage PHYSIOGRAPHIC AREA: Fraser Lowland

INVENTORY

ORE ZONE: MAIN REPORT ON: Y
CATEGORY: Measured YEAR: 1991
QUANTITY: 36000000 Tonnes
COMMODITY: Feldspar GRADE: 0.3500 Per cent
COMMENTS: The grade stated is the Fe (iron) content of the sodic feldspar.
REFERENCE: Property File - Stage 1 report, 1991.

CAPSULE GEOLOGY

The Sumas Sodaspar deposit is located about 9 kilometres northeast of Abbotsford, near Sumas Mountain. The central part of Sumas Mountain is underlain by porphyritic meta-andesite and metadacite with minor breccia and arkose, of the Jurassic Harrison Lake Formation. Granodiorite to quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex is present on the east side of the mountain. A valuable series of shales occurs in sedimentary rocks that cap the southwestern end of Sumas Mountain, just north of Kilgard (see Sumas Mountain Fireclay, 092GSE024).

CAPSULE GEOLOGY

Clayburn Fireclay, 092GSE004; and Richmix Fireclay, 092GSE005). This sedimentary sequence consists of more than 366 metres of interbedded shales, sandstones and conglomerates.

The Sumas Sodaspar occurrence consists of a feldspar (sodic feldspar) dike outcropping in a north-south direction for a few kilometres and is up to 200 metres wide and a few hundred metres in depth. The dike is surrounded by grey to pink, medium grained granodiorite and massive andesite and dacite porphyries. The dike contains at least two major phases. Most of the dike is porphyritic dacite with phenocrysts of plagioclase and quartz in an aphanitic green groundmass. The second phase is very fine to fine grained leucocratic dacite with fine grained phenocrysts of plagioclase and quartz in a groundmass of potassium feldspar. To the west, the dike grades sharply into andesite. The feldspar dikes are generally well jointed and fractured, breaking readily into resistant angular fragments which are now used locally for road construction. Limonite is common on joint and fracture surfaces. Quarrying has been done in the northeast part of the property to provide sub-base aggregate for nearby subdivisions.

Sodic feldspar (sodaspar), an industrial mineral, is the major source of alumina (Al₂O₃) which acts as a flux in the manufacture of glass, fibreglass and in ceramic products such as kitchen sinks, toilets or floor tiles. It also acts as a filler for paint and asphalt tile. Quality Industrial Mineral & Supply Inc. is interested in developing the sodic feldspar deposit to supply existing market needs.

The critical factor in an economic evaluation of feldspar is the iron (Fe) content of the raw material. The Fe content of the rocks below the zone of weathering is lower than that of samples from near the surface. Thus, drilling has indicated that large tonnages of rock with iron contents of less than 0.35 per cent exist below surface. For most users of feldspars, allowable Fe varies with the intended use from:

- a) 0.25 - 0.35 per cent for fibreglass
- b) less than 0.05 per cent for high quality glass and porcelain
- c) 0.30 per cent for low quality glass

Chemical analyses on two samples, collected by Z.D. Hora, are as follows:

OXIDES	WEIGHT %
Al ₂ O ₃	15 to 18
Na ₂ O	about 8
Fe ₂ O ₃	0.15 to 0.40

The results of iron analysis on 27 samples taken by J. Payne in 1990, indicate the iron content ranges between 0.19 and 2.33 per cent Fe₂O₃ with an average of 0.99 per cent Fe₂O₃ (Assessment Report 21633). Petrographic analysis of samples indicated that most of the iron was contained in minerals such as chlorite, hornblende and actinolite and to a lesser extent in pyrite and hematite. The intergrowth of these mafic silicates with feldspar, however, could make their separation difficult. The results of whole rock analysis on 8 samples were as

SiO ₂	77.34	-81.72
Al ₂ O ₃	10.88	-12.81
Fe ₂ O ₃	0.52	- 2.33
CaO	0.28	- 0.78
Na ₂ O	4.20	- 6.30
K ₂ O	0.10	- 2.65
TiO ₂	0.10	- 0.24
P ₂ O ₅	0.01	- 0.06
MnO	0.01	- 0.02
Cr ₂ O ₃	0.01	
Ba (ppm)	141	- 2041
LOI	0.3	- 1.0

In an effort to evaluate Fe content with depth as well as geology it was decided to rotary hammer drill 10 widely-spaced boreholes for a total of 96 metres. Although the actual thickness of the dikes is considered to be a few hundred metres, a minimum depth of 50 metres was used. Geological mapping, drilling and measuring of exposed sections has revealed that 36 million tonnes of sodic feldspar material exists near the surface (Property File - Stage 1 report). Recent analytical analyses suggests that sufficient iron can be removed using a weak acid wash to produce a product suitable for high quality glass or porcelain marketing (Assessment Report 21633).

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GSC MAP 8-1956; 44-1959; 39-1960; 40-1960; 1069A; 1151A; 1386A
GSC MEM 24E; 38; 335
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Armstrong, J.E. (1990): Vancouver Geology, Geological Association of
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DATE CODED: 1993/02/25
DATE REVISED: 1997/07/30

CODED BY: GO
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE038**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRASER RIVER CLAY**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 13 00 N
LONGITUDE: 122 51 38 W
ELEVATION: 5 Metres

NORTHING: 5451551
EASTING: 510155

LOCATION ACCURACY: Within 500M

COMMENTS: Located in North Surrey, along the south shore of the Fraser River (Bulletin 30).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated Massive
CLASSIFICATION: Residual Sedimentary
TYPE: B06 Fireclay
DIMENSION: 3 Metres
COMMENTS: The clay deposit is 1.8 to 3 metres thick.

Industrial Min.

E07

Sedimentary kaolin

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary

Unnamed/Unknown Group

Undefined Formation

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
COMMENTS: Quaternary surficial clay.

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

In North Surrey, along the south side of the Fraser River, is a deposit of surface clay that was prospected and tested for use in ceramics or common brick making. The clay deposit consists of 1.8 to 3.0 metres of stratified clay overlain by gravel.

BIBLIOGRAPHY

EMPR BULL *30, p. 49
GSC MAP 1386A
GSC MEM *135, p. 38; 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/02/10
DATE REVISED: 1990/06/14

CODED BY: LLD
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE039**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRASER RIVER BRICK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 10 51 N
LONGITUDE: 122 54 16 W
ELEVATION: 10 Metres

NORTHING: 5447563
EASTING: 506964

LOCATION ACCURACY: Within 500M

COMMENTS: The Fraser River Brick and Tile Co., is located on the south side of the Fraser River near Brownsville (Bulletin 30, Fig.1, occurrence #45).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated Massive
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Fraser River Brick and Tile Co. Ltd., is located on the south side of the Fraser River near Brownsville. The company produced common brick from a local deposit of surface clay. The deposit, described as stiff mud, comprised 4.6 metres of grey clay that pinched out in an eastward direction. The clay fired red to reddish-brown.

BIBLIOGRAPHY

EMPR BULL *30, pp. 11,49
GSC MAP 1386A
GSC MEM 24E, p. 140; *135, p. 38; 335
GSC P 90-1F, pp. 95-107
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/02/10
DATE REVISED: 1990/06/14

CODED BY: LLD
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE040**

NATIONAL MINERAL INVENTORY:

NAME(S): **BEAR CREEK BRICK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 09 27 N
LONGITUDE: 122 50 40 W
ELEVATION: 10 Metres

NORTHING: 5444976
EASTING: 511342

LOCATION ACCURACY: Within 500M

COMMENTS: The Bear Creek Brick Co., is located in Surrey (Bulletin 30, Fig. 1, occurrence #47).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual
TYPE: B06 Fireclay

Massive
Sedimentary

Industrial Min.
E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Clay

HOSTROCK COMMENTS: Surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Bear Creek Brick Co., located in Surrey, produced common brick from local surface clay. The yellow-grey, non-calcareous clay worked well, had good plasticity, and averaged 28 per cent water. The clay had a long firing temperature range with an average shrinkage characteristic of 9.3 per cent. The plant produced red to reddish-brown brick that was used locally.

BIBLIOGRAPHY

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EMPR BULL *30, pp. 10,49
GSC MAP 1386A
GSC MEM 335
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Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/02/10
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSE041**

NATIONAL MINERAL INVENTORY:

NAME(S): **ORO, K.D., 79 HILL,
BLUE DEVIL, EDD, CRICKMAR,
ALOUETTE LAKE**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:
LATITUDE: 49 17 53 N
LONGITUDE: 122 23 43 W
ELEVATION: 920 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Oro shear zone (Assessment Report 16404, Figure 5).

Underground
MINING DIVISION: New Westminster
UTM ZONE: 10 (NAD 83)
NORTHING: 5460766
EASTING: 543966

COMMODITIES: Gold Silver Copper Lead

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Chalcopyrite Galena
ASSOCIATED: Quartz Magnetite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Massive
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 300 Metres STRIKE/DIP: 130/75W TREND/PLUNGE:
COMMENTS: Extensive vein between the shear zone and smaller quartz veins.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Jurassic Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Greenstone
Calc-silicate

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SHEAR REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 22.4000 Grams per tonne
Gold 2.3200 Grams per tonne
Copper 0.2097 Per cent
COMMENTS: Sample of massive sulphide.
REFERENCE: Assessment Report 16404.

CAPSULE GEOLOGY

The Oro occurrence is a shear zone exposed in a roadcut 300 metres east of Seventynine Creek, 2.8 kilometres southwest of the peak of Mount Crickmar.

In 1938 and 1939, native gold was mined from the 79 Hill and Blue Devil workings, near the headwaters of Seventynine Creek between Alouette and Stave lakes. Prior to operations closing in 1939, some high-grade shipments were made from the mine. During 1976, the Spanar claims were staked 1500 metres south of Mount Crickmar. An old adit was subsequently relocated and extended about 5 metres. An induced polarization survey was also carried out. Between 1981 and 1987, Skyrocket Exploration and Resources Inc. held a large claim block between Stave and Alouette lakes. Exploration revealed spotty gold soil geochemical values, however, later that year a significant gold value was obtained from a major, northeast trending shear zone. Follow-up sampling and percussion drilling work was done in and around Kearsley Creek in 1984. During 1988 and 1989, soil and rock sampling surveys were carried out on the Oro and Star claims.

The majority of the region is underlain by granodiorite to diorite intrusions of the Jurassic to Cretaceous Coast Plutonic Complex. Roof pendants of Paleozoic Twin Island Group and Jurassic

CAPSULE GEOLOGY

Harrison Lake Formation occur throughout the area.

In the area, mineralization was noted to occur in three distinct modes: 1) quartz-pyrite (plus/minus chalcopyrite and magnetite) stringers and veins up to 6 centimetres wide in unaltered quartz diorite, 2) quartz-pyrite lenses up to 0.40 metre wide in unaltered quartz diorite and 3) silicified or calcsilicate altered shear zones up to 3 metres wide containing pyrite and trace chalcopyrite.

The shear zone strikes 160 degrees and dips 80 degrees east and hosts sulphidic vuggy quartz veins up to 0.3 metre in width. A grab sample of massive sulphide from the shear zone assayed 2.32 grams per tonne gold, 22.4 gram per tonne silver and 0.2097 per cent copper (Assessment Report 16404, page 9).

Several sulphidic quartz veins, 0.10 to 0.50 metre in width, outcrop in Seventynine Creek. The veins are 480 to 560 metres south-west of the shear zone. A grab sample from a 0.10 to 0.20 metre wide quartz vein assayed 15.9 grams per tonne silver and 3.1809 per cent copper (Assessment Report 18145, page 4, Sample SZ10).

A third showing, consisting of an extensive quartz vein of uncertain location, likely lies between the shear zone and the previous quartz veins. The vein strikes 125 to 135 degrees for 300 metres and dips 75 degrees southwest. The vein is bounded by a hangingwall of calcium-magnesium silicates and a footwall of slickensided greenstone. Mineralization consists of arsenopyrite, pyrite and chalcopyrite in a gangue of locally vuggy, fine grained, banded grey and white quartz.

In 1995, two samples taken in the vicinity of the Oro occurrence yielded significant results. Sample BDR01, a chip sample across a 4-centimetre wide quartz vein, yielded 0.038 per cent tungsten, 0.0195 per cent molybdenum and 0.045 gram per tonne gold (Assessment Report 24209). Sample BDR08, a chip sample across a 2 to 6 centimetre wide quartz-pyrite stringer, yielded 1.26 grams per tonne gold, 21.4 grams per tonne silver and greater than 1 per cent copper (Assessment Report 24209).

An unknown amount of high grade, gold and silver production is reported for the 79 Hill and Blue Devil workings in 1938 and 1939. In 1939, a 612-kilogram bulk sample returned 62 grams of gold, 93 grams of silver, 2 kilograms of copper and 7 kilograms of lead. The workings lie in the vicinity of the above showings.

BIBLIOGRAPHY

- EMPR AR 1939-41
- EMPR ASS RPT *9412, *16404, *18145, *24209
- EMPR BC METAL MM00214
- EMPR INDEX 3-190
- EMPR PF (Lorimer, M.K. (1971): Report on the Aloutte Lake Property, in Prospectus - Skat Resources Ltd.)
- GSC MAP 8-1956; 1069A; 1151A; 1386A
- GSC MEM 335
- GSC P 90-1F, pp. 95-107
- GCNL #193, 1983
- Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/05/30
DATE REVISED: 1997/07/30

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE042**

NATIONAL MINERAL INVENTORY:

NAME(S): **SKY**, NUMBER 4 SHOWING, CRICKMER

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 18 15 N
LONGITUDE: 122 23 16 W
ELEVATION: 1090 Metres

NORTHING: 5461450
EASTING: 544506

LOCATION ACCURACY: Within 1 KM

COMMENTS: Roadcut exposure, location is somewhat uncertain (Assessment Report 10040, Part 2, page 9).

COMMODITIES: Copper Silver Gold

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Arsenopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Mesozoic-Cenozoic

Coast Plutonic Complex

LITHOLOGY: Feldspar Porphyry
Quartz Diorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1981

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver	4.5000	Grams per tonne
Gold	0.2000	Grams per tonne
Copper	0.9800	Per cent

COMMENTS: Across 0.3 metre.

REFERENCE: Assessment Report 10040, Part 2, page 10, Sample 031.

CAPSULE GEOLOGY

The Sky showing is located 500 metres southwest of Kearsley Creek and 3.5 kilometres southeast of Alouette Lake.

In 1938, native gold was mined from the Oro (092GSE041), near the headwaters of Seventynine Creek between Alouette and Stave lakes. Prior to operations closing in 1939, some high-grade shipments were made from the mine. During 1976, the Spanar claims were staked 1500 metres south of Mount Crickmer. An old adit was subsequently relocated and extended about 5 metres. An induced polarization survey was also carried out. Between 1981 and 1987, Skyrocket Exploration and Resources Inc. held a large claim block between Stave and Alouette lakes. Exploration revealed spotty gold soil geochemical values, however, later that year a significant gold value was obtained from a major, northeast trending shear zone. Follow-up sampling and percussion drilling work was done in and around Kearsley Creek in 1984. During 1988 and 1989, soil and rock sampling surveys were carried out on the Oro and Star claims.

The majority of the region is underlain by granodiorite to diorite intrusions of the Jurassic to Cretaceous Coast Plutonic Complex. Roof pendants of Paleozoic Twin Island Group and Jurassic Harrison Lake Formation occur throughout the area.

A roadcut exposes a strong shear zone, cutting feldspar porphyry. The porphyry is enclosed in medium to coarse grained, altered Late Jurassic quartz diorite of the Coast Plutonic Complex.

CAPSULE GEOLOGY

In the area, mineralization was noted to occur in three distinct modes: 1) quartz-pyrite (plus/minus chalcopyrite and magnetite) stringers and veins up to 6 centimetres wide in unaltered quartz diorite, 2) quartz-pyrite lenses up to 0.40 metre wide in unaltered quartz diorite and 3) silicified or calcsilicate altered shear zones up to 3 metres wide containing pyrite and trace chalcopyrite.

At the Sky showing, mineralization consists of chalcopyrite, pyrite and arsenopyrite in a gangue of banded quartz.

A sample taken across a width of 0.30 metre assayed 0.20 gram per tonne gold, 4.5 grams per tonne silver and 0.98 per cent copper (Assessment Report 10040, Part 2, page 10, Sample 031).

BIBLIOGRAPHY

- EMPR ASS RPT *10040, 24209
EMPR FIELDWORK 1980, pp. 165-184
GSC MAP 8-1956; 1069A; 1151A; 1386A
GSC MEM 335
GSC P 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1990/05/30
DATE REVISED: 1997/07/30

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE043**

NATIONAL MINERAL INVENTORY:

NAME(S): **JOHNSTON-COLEBROOK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 01 N
LONGITUDE: 122 48 05 W
ELEVATION: 3 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438622
EASTING: 514498

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Johnston-Colebrook Pit is private. It is considered depleted.

BIBLIOGRAPHY

ARMS 71
MTH District Pit 1487C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE044**

NATIONAL MINERAL INVENTORY:

NAME(S): **DEROCHE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 12 11 N
LONGITUDE: 122 02 44 W
ELEVATION: 10 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5450467
EASTING: 569526

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Deroche Pit is located on Reserved Crown Land. It produces Select Granular Sub-Base.

BIBLIOGRAPHY

ARMS 79
MTH District Pit 1508A
MTH Provincial Pit 225

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE045**

NATIONAL MINERAL INVENTORY:

NAME(S): **EVANS**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 07 10 N
LONGITUDE: 122 06 31 W
ELEVATION: 10 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5441117
EASTING: 565042

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Evans Pit is located on Reserved Crown Land. It is located in a fan deposit and produces 75 millimetres Well Graded Base.

BIBLIOGRAPHY

ARMS 81
MTH District Pit 1509B
MTH Provincial Pit 228

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE046**

NATIONAL MINERAL INVENTORY:

NAME(S): **PIPELINE ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 18 54 N
LONGITUDE: 122 46 28 W
ELEVATION: 140 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5462498
EASTING: 516393

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

This Pipeline Road Pit is located on (?Reserved) Crown Land.

BIBLIOGRAPHY

ARMS 86
MTH District Pit 1527A
MTH Provincial Pit 2484

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE047**

NATIONAL MINERAL INVENTORY:

NAME(S): **UNITED #1**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 01 12 N
LONGITUDE: 122 40 19 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5429731
EASTING: 523985

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

This Pit is located on private land.

BIBLIOGRAPHY

ARMS 87
MTH District Pit 1530A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE048**

NATIONAL MINERAL INVENTORY:

NAME(S): **KLAMMER**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 04 11 N
LONGITUDE: 122 39 49 W
ELEVATION: 45 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5435261
EASTING: 524570

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

Klammer Pit is located on Reserved Crown Land. This pit is considered depleted.

BIBLIOGRAPHY

ARMS 88
MTH District Pit 1530C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE049**

NATIONAL MINERAL INVENTORY:

NAME(S): **BORDER S&G**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 00 19 N
LONGITUDE: 122 39 51 W
ELEVATION: 105 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5428097
EASTING: 524561

LOCATION ACCURACY: Within 500M

COMMENTS: Border S&G is located beside the B.C./Wash. border.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

Border S&G Pit is located on private land. Product from this pit is 25 millimetres Well Graded Base. Extraction is derived from outwash material.

BIBLIOGRAPHY

ARMS 90
MTH District Pit 1530G

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE050**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONSTRUCTION AGGREGATES**

STATUS: Prospect Open Pit

MINING DIVISION: New Westminster

REGIONS: British Columbia

NTS MAP: 092G02E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 03 28 N

NORTHING: 5433938

LONGITUDE: 122 38 58 W

EASTING: 525611

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located east of 200 Street, south of 32 Avenue, on the east side of 204 Street.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

This Construction Aggregates Pit is located on private land. Product from this pit is 25 millimetres Well Graded Base. Extraction is derived from outwash material.

BIBLIOGRAPHY

ARMS 92
MTH District Pit 1530J

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE051**

NATIONAL MINERAL INVENTORY:

NAME(S): **LANGLEY MUNICIPALITY**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 04 07 N
LONGITUDE: 122 39 14 W

NORTHING: 5435141
EASTING: 525281

ELEVATION: 100 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located north of 32 Avenue, south of 36 Avenue, east of 200 Street and west of 20? Street.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

This Langley Municipality Pit is located on private land. Product from this pit is 25 millimetres Well Graded Base. Extraction is derived from outwash material, and is considered close to depletion.

BIBLIOGRAPHY

ARMS 93
MTH District Pit 1530K

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE052**

NATIONAL MINERAL INVENTORY:

NAME(S): **CRAIG**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 05 01 N
LONGITUDE: 122 34 36 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5436837
EASTING: 530912

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Craig Pit is located on Crown Land.

BIBLIOGRAPHY

ARMS 100
MTH District Pit 1540B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE053**

NATIONAL MINERAL INVENTORY:

NAME(S): **HANEY EDUCATION**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 11 22 N
LONGITUDE: 122 31 56 W
ELEVATION: 130 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5448621
EASTING: 534084

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Haney Education Pit is located on private land. It produces Select Granular Sub-Base. Extraction derives from an outwash deposit. Technical data: Pit run; 4 per cent fines, 66 per cent sand, 30 per cent fine gravel.

BIBLIOGRAPHY

ARMS 102
MTH District Pit 1558A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE054**

NATIONAL MINERAL INVENTORY:

NAME(S): **BROWN ROAD**, POPKUM

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 07 31 N
LONGITUDE: 122 33 18 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5441478
EASTING: 532467

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Brown Road Pit is located on Reserved Crown Land. It produces Granular Borrow which it derives from an outwash deposit. Deposit is considered depleted at this site.

BIBLIOGRAPHY

ARMS 103
MTH District Pit 1559A
MTH Provincial Pit 253

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE055**

NATIONAL MINERAL INVENTORY:

NAME(S): **SEIFERD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 07 10 N
LONGITUDE: 122 31 54 W
ELEVATION: 60 Metres

NORTHING: 5440840
EASTING: 534173

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated on north side of Trans-Canada Highway (#1); 5 kilometres east of Otter Road and approximately 3 kilometres west of Bradner.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Seiferd Pit is located on Reserved Crown Land. It produces 25 millimetres Well Graded Base.

BIBLIOGRAPHY

ARMS 104
MTH District Pit 1559B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE056**

NATIONAL MINERAL INVENTORY:

NAME(S): **MATSQUI**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 02 28 N
LONGITUDE: 122 24 24 W
ELEVATION: 90 Metres

NORTHING: 5432195
EASTING: 543362

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated between Huntingdon and King Road, approximately 5 kilometres south of Trans-Canada Highway (#1).

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sediment/Sedimentary
Granite
Volcanic
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Matsqui Pit is located on private land. It produces 25 millimetres Well Graded Base from an outwash deposit. The pit contains a high water table. Petrography of the aggregate from the pit is 55 per cent volcanics and 45 per cent granitic and sedimentary rocks.

BIBLIOGRAPHY

ARMS 105
MTH District Pit 1560C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE057**

NATIONAL MINERAL INVENTORY:

NAME(S): **STRONG**, POST CREEK

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 01 34 N
LONGITUDE: 122 25 42 W
ELEVATION: 80 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5430516
EASTING: 541791

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated 6 kilometres southwest of Abbotsford, west of, and adjoining Bradner.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Diorite
Meta Sediment/Sedimentary
Quartzite
Vesicular Volcanic
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Strong Pit is located on Reserved Crown Land. It produces 25 millimetres Well Graded Base from a glaciofluvial outwash deposit. Technical data: Pit run; 5 per cent fines, 15 per cent sand and 80 per cent fine gravel. Petrography of the aggregate from the pit is 58 per cent vesicular volcanics, 17 per cent quartzite, 13 per cent meta-sediments, and 12 per cent diorite.

This pit is adjacent to or part of Prokoptz, 092GSE096.

BIBLIOGRAPHY

ARMS 106
MTH District Pit 1506A
MTH Provincial Pit 223

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE058**

NATIONAL MINERAL INVENTORY:

NAME(S): **TRETHEWEY**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 03 41 N
LONGITUDE: 122 19 27 W

NORTHING: 5434500
EASTING: 549371

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated north of, and adjoining, MacLure Road at Trethewey Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Volcanic
Feldspar Porphyry
Granodiorite
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Trethewey Pit is located on private land. It produces 25 millimetres Well Graded Base from an outwash deposit. Technical data: Pit run; 3 per cent fines, 12 per cent sand, 10 per cent fine gravel, 7 per cent coarse gravel. Petrography of the aggregate from the pit is derived from 43 per cent igneous and volcanics, 30 per cent granodiorite, 27 per cent feldspar porphyry.

BIBLIOGRAPHY

ARMS 107
MTH District Pit 1570C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE059**

NATIONAL MINERAL INVENTORY:

NAME(S): **KETTLE GRAVEL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 02 05 N
LONGITUDE: 122 20 21 W
ELEVATION: 60 Metres

NORTHING: 5431526
EASTING: 548301

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated 0.5 kilometre south of Clearbrook, west of Clearbrook Road at Marshall Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Kettle Gravel Pit is located on Reserved Crown Land. The pit is depleted to water table.

BIBLIOGRAPHY

ARMS 108
MTH District Pit 1570F
MTH Provincial Pit 2414

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE060**

NATIONAL MINERAL INVENTORY:

NAME(S): **PARKER**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 00 39 N
LONGITUDE: 122 20 01 W
ELEVATION: 60 Metres

NORTHING: 5428874
EASTING: 548731

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated south of Clearbrook, 3.5 kilometres south of
Trans-Canada Highway (#1), east and adjoining Clearbrook Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Parker Pit is located on Reserved Crown Land. The pit produces 25 millimetres Well Graded Base. Extraction occurs in an outwash deposit with 0.6 metre of topsoil and silt overburden.

BIBLIOGRAPHY

ARMS 109
MTH District Pit 1570E
MTH Provincial Pit 256

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE061**

NATIONAL MINERAL INVENTORY:

NAME(S): **MATSQUI MUNICIPALITY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 04 04 N
LONGITUDE: 122 20 02 W
ELEVATION: 50 Metres

NORTHING: 5435204
EASTING: 548655

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated at the end of, and adjoining, Clearbrook Road;
approximately 2 kilometres north of South Fraser.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Matsqui Municipal Pit is located on private land. The pit produces 25 millimetres Well Graded Base. Extraction occurs in an outwash deposit with 0.6 metre of organic soil overburden. Technical data: Pit run; 5 per cent fines, 75 per cent sands, and 20 per cent coarse gravel.

BIBLIOGRAPHY

ARMS 110
MTH District Pit 1570G

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE062**

NATIONAL MINERAL INVENTORY:

NAME(S): **LOWEN**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 03 00 N
LONGITUDE: 122 15 56 W
ELEVATION: 50 Metres

NORTHING: 5433274
EASTING: 553665

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated 0.5 kilometre east of Abbotsford on Beck Road; 0.5

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Lowen Pit is located on Reserved Crown Land. The pit produces 25 millimetres Well Graded Base. Extraction occurs in a glacio-fluvial outwash deposit. Technical data: Pit run; 30 per cent fines (<sand). Material from this pit is the source of filter bed material for sewage effluent.

BIBLIOGRAPHY

ARMS 112
MTH District Pit 1580B
MTH Provincial Pit 226

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/06

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE063**

NATIONAL MINERAL INVENTORY:

NAME(S): **HUNTINGTON**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 00 14 N
LONGITUDE: 122 16 14 W
ELEVATION: 40 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5428144
EASTING: 553349

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated adjacent to B.C./Washington border.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Huntington Pit is located on Reserved Crown Land. The pit is considered depleted.

BIBLIOGRAPHY

ARMS 113
MTH District Pit 1580C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE064**

NATIONAL MINERAL INVENTORY:

NAME(S): **SNASS CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 10 59 N
LONGITUDE: 122 16 14 W
ELEVATION: 125 Metres

NORTHING: 5448062
EASTING: 553157

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated on east side of Snass Creek, north of Hope-Princeton Highway.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Snass Creek Pit is located on Reserved Crown Land. The pit produces 25 millimetres Well Graded Base from a terrace deposit. Technical data: Pit run; 2 per cent fines, 14 per cent sand, 39 per cent coarse gravel, 28 per cent small cobbles, 11 per cent large cobbles and 6 per cent boulders.

BIBLIOGRAPHY

ARMS 115
MTH District Pit 1589B
MTH Provincial Pit 263

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE065**

NATIONAL MINERAL INVENTORY:

NAME(S): **HENDERSON BAR**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 09 02 N
LONGITUDE: 122 03 00 W

NORTHING: 5444627

ELEVATION: 2 Metres

EASTING: 569275

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is situated on a Fraser River Bar northwest of Chilliwack Mountain.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Henderson Bar Pit is located on Crown Land. A river bar along southern bank of Fraser River.

BIBLIOGRAPHY

ARMS 116
MTH District Pit 1639A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE066**

NATIONAL MINERAL INVENTORY:

NAME(S): **FROST CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 01 48 N
LONGITUDE: 122 01 48 W
ELEVATION: 140 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5431244
EASTING: 570905

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Frost Creek Pit is located on Reserved Crown Land. The pit produces 25 millimetres Well Graded Base from a fan deposit.

BIBLIOGRAPHY

ARMS 117
MTH District Pit 1640A
MTH Provincial Pit 240

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE067**

NATIONAL MINERAL INVENTORY:

NAME(S): **FURRY CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 34 29 N
LONGITUDE: 123 13 28 W
ELEVATION: 75 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5491372
EASTING: 483773

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Furry Creek Pit is located on private land. The pit produces granular borrow.

BIBLIOGRAPHY

ARMS 163
MTH District Pit 1159C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE068**

NATIONAL MINERAL INVENTORY:

NAME(S): **LAFARGE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 01 31 N
LONGITUDE: 122 40 47 W
ELEVATION: 45 Metres

NORTHING: 5430315
EASTING: 523414

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located north of 8 Avenue, 4 kilometres east of 176 Street.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Lafarge Pit is located on private land. The pit produces 25 millimetres Well Graded Base from an outwash deposit.

BIBLIOGRAPHY

ARMS 213
MTH District Pit 1400A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE069**

NATIONAL MINERAL INVENTORY:

NAME(S): **TELEGRAPH ROAD**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 50 N
LONGITUDE: 122 41 15 W
ELEVATION: 3 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447575
EASTING: 522774

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Telegraph Road Pit is located on private land. The pit may be depleted.

BIBLIOGRAPHY

ARMS 214
MTH District Pit 1405A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE070**

NATIONAL MINERAL INVENTORY:

NAME(S): **RICHMOND-PORT KELLS**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 48 N
LONGITUDE: 122 42 01 W
ELEVATION: 3 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447509
EASTING: 521843

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Richmond-Port Kells Pit is located on private land.

BIBLIOGRAPHY

ARMS 215
MTH District Pit 1405B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE071**

NATIONAL MINERAL INVENTORY:

NAME(S): **BROADWAY RD**, BROADWAY RS

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 49 N
LONGITUDE: 122 41 46 W
ELEVATION: 3 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447541
EASTING: 522147

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Broadway Road Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 216
MTH District Pit 1405C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE072**

NATIONAL MINERAL INVENTORY:

NAME(S): **LATIMER ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 50 N
LONGITUDE: 122 41 31 W
ELEVATION: 3 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447573
EASTING: 522450

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Latimer Road Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 217
MTH District Pit 1405D

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE073**

NATIONAL MINERAL INVENTORY:

NAME(S): **SURREY MUNICIPAL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 02 54 N
LONGITUDE: 122 40 59 W
ELEVATION: 40 Metres

NORTHING: 5432877
EASTING: 523160

LOCATION ACCURACY: Within 500M

COMMENTS: The Surrey Municipal Pit is located east of 192 Street, north of 20 Avenue, south of 32 Avenue and west of Surrey-Langley Border.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Surrey Municipal Pit is located on Reserved Crown Land. The pit produces 25 millimetres Well Graded Base from an outwash deposit.

BIBLIOGRAPHY

ARMS 218
MTH District Pit 1409A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE074**

NATIONAL MINERAL INVENTORY:

NAME(S): **WARNER, GOERTZ**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 00 52 N
LONGITUDE: 122 28 33 W
ELEVATION: 70 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5429194
EASTING: 538328

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Warner Pit is located on Reserved Crown Land. The pit is considered depleted.

BIBLIOGRAPHY

ARMS 219
MTH District Pit 1550A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE075**

NATIONAL MINERAL INVENTORY:

NAME(S): **OTTER**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 04 04 N
LONGITUDE: 122 32 19 W
ELEVATION: 105 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5435093
EASTING: 533701

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Otter Pit is located on Reserved Crown Land. The pit is considered depleted.

BIBLIOGRAPHY

ARMS 220
MTH District Pit 1550C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE076**

NATIONAL MINERAL INVENTORY:

NAME(S): **BAOIL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 17 18 N
LONGITUDE: 122 56 31 W
ELEVATION: 50 Metres

NORTHING: 5459511
EASTING: 504222

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located south of Reed Point in Port Moody.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Till
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Baoil Pit is located on private land. A product of the pit is Bridge End Fill. Ministry of Transportation and Highways has developed the pit in conjunction with the city due to high costs. Extraction in from a till deposit.

BIBLIOGRAPHY

ARMS 222
MTH District Pit 1461A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE077**

NATIONAL MINERAL INVENTORY:

NAME(S): **SEVENTY-SECOND AVENUE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 07 36 N
LONGITUDE: 122 55 03 W
ELEVATION: 5 Metres

NORTHING: 5441540
EASTING: 506019

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located south of the west end of 72 Avenue, Cougar Canyon Estates.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE Quaternary GROUP Undefined Group FORMATION Undefined Formation IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Seventy-Second Avenue Pit is located on private land.

BIBLIOGRAPHY

ARMS 223
MTH District Pit 1477A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE078**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRAY ROAD**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 59 N
LONGITUDE: 122 53 12 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5440400
EASTING: 508270

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located east of Scott Road and south of Newton Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Bray Road Pit is located on private land. May possibly have residential development.

BIBLIOGRAPHY

ARMS 224
MTH District Pit 1477B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE079**

NATIONAL MINERAL INVENTORY:

NAME(S): **COLEBROOK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 06 N
LONGITUDE: 122 52 47 W
ELEVATION: 45 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438765
EASTING: 508780

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Colebrook Pit is located on private land. Product from this pit was Select Granular Sub-Base. Pit is now considered depleted.

BIBLIOGRAPHY

ARMS 225
MTH District Pit 1477C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE080**

NATIONAL MINERAL INVENTORY:

NAME(S): **STANDARD-GENERAL**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 07 13 N
LONGITUDE: 122 53 30 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5440832
EASTING: 507905

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located west of 120 Street at 68 Avenue.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Standard-General Pit is located on private land. Pit may be the site of residential development?

BIBLIOGRAPHY

ARMS 226
MTH District Pit 1477D

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE081**

NATIONAL MINERAL INVENTORY:

NAME(S): **NUMBER 10 HWY**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 42 N
LONGITUDE: 122 54 23 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439874
EASTING: 506832

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located north of Highway #10 and west of Scott Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Number 10 Highway Pit was located on private land. Pit has now been abandoned.

BIBLIOGRAPHY

ARMS 227
MTH District Pit 1477E

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE082**

NATIONAL MINERAL INVENTORY:

NAME(S): **PENFOLD**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 20 N
LONGITUDE: 122 48 13 W
ELEVATION: 55 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439209
EASTING: 514334

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Penfold Pit was located on private land. The pit produced Select Granular Sub-Base. The pit has now been depleted, however, more material may exist to the south.

BIBLIOGRAPHY

ARMS 228
MTH District Pit 1487A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE083**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCLELLAN**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 09 N
LONGITUDE: 122 48 28 W
ELEVATION: 40 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438868
EASTING: 514031

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located south of Highway #10 between 148 Avenue and 152 Avenue.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The McLellan Pit is located on Reserved Private Land. The pit has now been virtually depleted, and is not active. The site is used as a storage site by Ministry of Transportation and Highways.

BIBLIOGRAPHY

ARMS 229
MTH District Pit 1487B
MTH Provincial Pit 215

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/08

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE084**

NATIONAL MINERAL INVENTORY:

NAME(S): **CURRIE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 04 48 N
LONGITUDE: 122 41 08 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5436397
EASTING: 522962

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Currie Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 256
MTH District Pit 1408A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE085**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRIGHTON ROAD**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 15 08 N
LONGITUDE: 122 54 50 W
ELEVATION: 40 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5455498
EASTING: 506267

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Brighton Road Pit is located on Reserved Crown Land. It is considered depleted.

BIBLIOGRAPHY

ARMS 258
MTH District Pit 1473A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE086**

NATIONAL MINERAL INVENTORY:

NAME(S): **ANT HILL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 12 22 N
LONGITUDE: 122 02 13 W
ELEVATION: 50 Metres

NORTHING: 5450815
EASTING: 570149

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located on Sumas Indian Reserve #8.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Ant Hill Pit is located on Indian Reserve land. Product from this pit is 75 millimetres Well Graded Base. Extraction is from a kame deposit.

BIBLIOGRAPHY

ARMS 259
MTH District Pit 1508B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE087**

NATIONAL MINERAL INVENTORY:

NAME(S): **COQUITLAM RIVER**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G07W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 16 26 N
LONGITUDE: 122 46 23 W
ELEVATION: 40 Metres

NORTHING: 5457928
EASTING: 516508

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located on a bar in the Coquitlam River.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Coquitlam River Pit is located on Crown Land.

BIBLIOGRAPHY

ARMS 262
MTH District Pit 1528A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE088**

NATIONAL MINERAL INVENTORY:

NAME(S): **MEERKIRK**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 03 47 N
LONGITUDE: 122 39 22 W
ELEVATION: 52 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5434522
EASTING: 525121

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Meerkirk Pit is located on Reserved Crown Land. The pit is considered depleted. Extraction was from an outwash deposit.

BIBLIOGRAPHY

ARMS 263
MTH District Pit 1530D

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE089**

NATIONAL MINERAL INVENTORY:

NAME(S): **LARSON ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 03 01 N
LONGITUDE: 122 39 35 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5433101
EASTING: 524864

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Larson Road Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 264
MTH District Pit 1530F

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE090**

NATIONAL MINERAL INVENTORY:

NAME(S): **MUNICIPAL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 46 N
LONGITUDE: 122 39 27 W
ELEVATION: 20 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5447461
EASTING: 524961

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is owned by Abbotsford Municipality.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Municipal Pit is located on private land.

BIBLIOGRAPHY

ARMS 266
MTH District Pit 1539A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE091**

NATIONAL MINERAL INVENTORY:

NAME(S): **CLARKE ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 10 21 N
LONGITUDE: 122 36 02 W
ELEVATION: 20 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5446709
EASTING: 529115

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Clarke Road Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 267
MTH District Pit 1549A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE092**

NATIONAL MINERAL INVENTORY:

NAME(S): **HALL**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 01 09 N
LONGITUDE: 122 28 33 W
ELEVATION: 90 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5429719
EASTING: 538324

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Hall Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 268
MTH District Pit 1550B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE093**

NATIONAL MINERAL INVENTORY:

NAME(S): **ALOUETTE LAKE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G08W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 16 43 N
LONGITUDE: 122 29 36 W
ELEVATION: 100 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5458552
EASTING: 536852

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Alouette Lake Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 269
MTH District Pit 1557A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE094**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCLEOD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 05 53 N
LONGITUDE: 122 31 26 W
ELEVATION: 70 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438465
EASTING: 534756

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The McLeod Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 270
MTH District Pit 1559C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE095**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROBERTS ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G02E
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 06 22 N
LONGITUDE: 122 31 32 W
ELEVATION: 70 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439360
EASTING: 534628

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Roberts Road Pit is located on private land.

BIBLIOGRAPHY

ARMS 271
MTH District Pit 1559D

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE096**

NATIONAL MINERAL INVENTORY:

NAME(S): **PROKOPTZ**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 01 33 N
LONGITUDE: 122 25 42 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5430485
EASTING: 541791

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Prokoptz Pit is located on private land. This pit is adjacent to or part of MTH District Pit 1506A (Strong, 092GSE057).

BIBLIOGRAPHY

ARMS 272
MTH District Pit 1560B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE097**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUSKIN DRIVE-IN**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 11 08 N
LONGITUDE: 122 25 29 W
ELEVATION: 20 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5448243
EASTING: 541921

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Ruskin Drive-in Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 274
MTH District Pit 1568A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE098**

NATIONAL MINERAL INVENTORY:

NAME(S): **DONNATELLY**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 09 55 N
LONGITUDE: 122 24 17 W
ELEVATION: 5 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5446000
EASTING: 543396

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Donnatelly Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 275
MTH District Pit 1569A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE099**

NATIONAL MINERAL INVENTORY:

NAME(S): **NORTH LEFEUVRE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G01W
BC MAP:

Open Pit

MINING DIVISION: New Westminster

LATITUDE: 49 08 27 N
LONGITUDE: 122 26 44 W
ELEVATION: 10 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5443260
EASTING: 540439

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The North Lefevre Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 276
MTH District Pit 1569B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/13

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSE100**

NATIONAL MINERAL INVENTORY:

NAME(S): EEL

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 04 16 N
LONGITUDE: 122 10 59 W
ELEVATION: 245 Metres

NORTHING: 5435682
EASTING: 559668

LOCATION ACCURACY: Within 500M

COMMENTS: The centre of the EEL claim group (Assessment Report 23449).

COMMODITIES: Aggregate Copper Feldspar

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Feldspar
ALTERATION: Chlorite Silica
ALTERATION TYPE: Chloritic Silicific'n
MINERALIZATION AGE: Jurassic

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Syngenetic Industrial Min.
TYPE: R15 Crushed rock
COMMENTS: The massive meta-andesites and metadacites are jointed subvertically, striking 160 degrees. The rock is being evaluated for quarrying road base, not precious or base metal mineralization.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic	Undefined Group	Harrison Lake	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Meta Andesite
Meta Dacite
Plagioclase Porphyry Flow
Felsic Flow
Granite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Harrison

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Eel feldspar showing is located about 6.5 kilometres northeast of Abbotsford, between McKee Peak and Taggart Peak on the north side of Sumas Creek. The claims were staked in 1994 on behalf of J.D. Lee, president of Quality Industrial Minerals Ltd. The property is about 1 kilometre south of the Sumas Mountain 'Feldspar' prospect (092GSE037).

Regionally, the Eel showing is underlain by porphyritic biotite and hornblende-bearing granite to diorite of the Coast Plutonic Complex. These have intruded meta-andesite and metadacite with minor breccia and arkose, of the Jurassic Harrison Lake Formation. A valuable series of shales occurs in sedimentary rocks that cap the southwestern end of Sumas Mountain, just north of Kilgard (see Sumas Mountain Fireclay, 092GSE024; Clayburn Fireclay, 092GSE004; and Richmix Fireclay, 092GSE005). This sedimentary sequence consists of more than 366 metres of interbedded shales, sandstones and conglomerates. The major structural trend is northeast-southwest.

The Eel showing is underlain by volcanics of the Jurassic Harrison Lake Formation. Felsic flows, and massive meta-andesite and metadacite, plagioclase porphyry flows comprise volcanics. Outcrop exposures are typically fine to medium grained, dark green and chlorite-altered. Jointing is predominantly subvertical, strike 160 degrees and commonly iron hydroxide stained. Other orientations are common but not regular. Fine grained pyrite, chalcopyrite, possibly other sulphides and quartz veinlets are locally present in joints.

The results of whole rock analysis on 3 samples were as follows:

OXIDES WEIGHT %

CAPSULE GEOLOGY

SiO2	55.02	-64.90
Al2O3	16.67	-17.18
Fe2O3	5.62	-10.17
MgO	1.26	- 3.21
CaO	2.24	- 5.15
Na2O	3.67	- 7.09
K2O	0.39	- 2.80
TiO2	0.72	- 0.99
P2O5	0.11	- 0.32
MnO	0.04	- 0.16
Cr2O3	0.002	- 0.007
Ba (ppm)	99	- 1003
LOI	1.9	- 2.8

Intermediate and mafic volcanic rocks differed mainly in their iron, calcium, sodium and potassium content (Assessment Report 23449). The rock is intended to be quarried and used as crushed rock for road base.

BIBLIOGRAPHY

EMPR ASS RPT 18793, 21633, 23450, *23449
EMPR FIELDWORK 1988, pp. 484,485
EMPR OF 1994-1
GSC MAP 8-1956; 44-1959; 39-1960; 40-1960; 1069A; 1151A; 1386A
GSC MEM 24E; 38; 335
GSC P 59-9; 60-29; 90-1F, pp. 95-107
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada (Cordilleran Section)
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1997/07/30
DATE REVISED: / /

CODED BY: KJM
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW001**

NATIONAL MINERAL INVENTORY: 092G6 Cu4

NAME(S): **COPPER DUKE (L.2467)**, MOUNTAIN LION, SWAYNE COPPER

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 19 N
LONGITUDE: 123 02 13 W
ELEVATION: 686 Metres

NORTHING: 5472511
EASTING: 497320

LOCATION ACCURACY: Within 500M

COMMENTS: The Copper Duke Crown-granted claim, Lot 2467, is located about 1.5 kilometres east of Lynn Creek and 11.5 kilometres north of Burrard Inlet.

COMMODITIES: Copper Iron Magnetite Silver Gold

MINERALS

SIGNIFICANT: Magnetite Pyrrhotite Chalcopyrite
ALTERATION: Epidote Garnet Hornblende
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated
CLASSIFICATION: Skarn Replacement Hydrothermal Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Mesozoic-Cenozoic

GROUP

Twin Island

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Gneiss
Schist
Diabase Dike

HOSTROCK COMMENTS: An undivided metamorphic assemblage of pre-Jurassic rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact Regional

Gambier
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Hornfels
Granulite

INVENTORY

ORE ZONE: DUMP

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1918

COMMODITY

COMMODITY	GRADE	Units
Silver	68.6000	Grams per tonne
Copper	3.8000	Per cent

COMMENTS: Grab sample from ore dump, assayed up to 16.4 per cent copper with trace gold.

REFERENCE: Minister of Mines Annual Report 1918, page 293.

CAPSULE GEOLOGY

The Copper Duke occurrence is underlain by the pre-Jurassic Twin Island Group which is comprised of medium to high grade metamorphic rocks whose contacts with the surrounding Jurassic to Tertiary Coast Plutonic rocks are commonly either complex migmatite zones or faults. The occurrence consists of magnetite and copper showings which were explored by several open cuts and four adits around 1908.

The host rocks are described as gneiss and schist which are cut by numerous diabase dykes. Mineralization consists mainly of magnetite, pyrrhotite and chalcopyrite in a gangue of epidote, garnet and hornblende. Grab samples from ore dumps in 1918 assayed from 3.8 to 16.4 per cent copper with traces of gold and about 68.6 grams per tonne silver (Minister of Mines Annual Report 1918, page 293).

In 1957, drilling in the magnetite-rich ore indicated that it was relatively free from impurities except for an appreciable amount of sulphur in the form of pyrrhotite (Minister of Mines Annual Report 1957, page 127).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 361
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR AR *1908-167; *1918-293; *1959-127
EMPR PF (Roddick, J.A. (c. 1956): Geology of Vancouver and Coquitlam
Map Area - in 092GSW General File)
GSC MAP *42-1963; 1069A; 1152A; 1386A
GSC MEM 335, p. 190
GSC OF 611
GSC P 53-28, p. 7
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of
Canada, Cordilleran Section
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/12

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW002**

NATIONAL MINERAL INVENTORY:

NAME(S): **SECHELT QUARRY**, COLUMBIA MARBLE LTD.

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G05W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 28 43 N

NORTHING: 5480981

LONGITUDE: 123 48 50 W

EASTING: 441043

ELEVATION: 113 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: The quarry is located on Nor'West Bay Road, 0.8 kilometres west of Wakefield Creek and 4 kilometres west of Sechelt (Minister of Mines Annual Report 1966, p. 262).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Diorite.

MINERALIZATION AGE: Jurassic

ISOTOPIC AGE: 150 Ma

DATING METHOD: Uranium/Lead

MATERIAL DATED:

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Industrial Min.

TYPE: R03 Dimension stone - granite

COMMENTS: Isotopic age date from Geological Survey of Canada Paper 90-1F, p. 99.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Black Diorite

HOSTROCK COMMENTS: Coast Plutonic Complex ranges from Jurassic to Tertiary in age. The complex is of Jurassic age on the Sechelt Peninsula.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

The Sechelt Quarry is situated on the Nor'west Bay Road, west of Sechelt, and was opened in diorite of the Jurassic to Tertiary Coast Plutonic Complex. About 18 tonnes of diorite were removed from near the west end of Nor'west Bay road in 1963 and shipped by Inland Quarries Ltd. to a Vancouver plant (Minister of Mines Annual Report 1963, p. 139). After being cut and polished, this material was found to contain too many flaws to be satisfactory for dimension stone.

In 1966 Columbia Marble Ltd. produced 270 tonnes of black diorite for dimension stone from an outcrop on the road in the vicinity of Inland's quarry, 0.8 kilometres west of Wakefield Creek (Minister of Mines Annual Report 1966, p. 262).

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GSC MAP *42-1963; 1069A; 1386A
GSC OF 611

Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/25

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW003**

NATIONAL MINERAL INVENTORY: 092G6 Zn1

NAME(S): **LYNN CREEK**, KEMPTVILLE EXT. (L.1609), KEMPTVILLE (L.1608),
EVENING STAR (L.1633A)

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)

LATITUDE: 49 25 15 N
LONGITUDE: 123 03 45 W
ELEVATION: 700 Metres

NORTHING: 5474241
EASTING: 495467

LOCATION ACCURACY: Within 500M

COMMENTS: Location is centre of Kemptville Extension (Lot 1609), located on the north side of Hayes Creek about 6.4 kilometres from North Vancouver.

COMMODITIES: Zinc Silver Lead

MINERALS

SIGNIFICANT: Sphalerite Pyrrhotite Galena Chalcopyrite Pyrite
Cubanite Marcasite Hematite

ASSOCIATED: Quartz
ALTERATION: Garnet Silica Hematite

COMMENTS: Skarn minerals.

ALTERATION TYPE: Skarn Silicific'n Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated
CLASSIFICATION: Skarn Epigenetic Replacement
TYPE: K02 Pb-Zn skarn G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
I01 Au-quartz veins
SHAPE: Irregular
MODIFIER: Sheared Faulted

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic-Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Limestone
Calcareous Sediment/Sedimentary
Meta Sediment/Sedimentary
Meta Volcanic
Diorite

HOSTROCK COMMENTS: Metamorphic rocks are mapped as a pendant of Gambier Group rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

Gambier

METAMORPHIC TYPE: Contact Regional

RELATIONSHIP:

GRADE: Hornfels
Granulite

INVENTORY

ORE ZONE: LYNN CREEK REPORT ON: Y
CATEGORY: Inferred YEAR: 1963
QUANTITY: 272155 Tonnes
COMMODITY: Zinc GRADE: 20.0000 Per cent

COMMENTS: Feasibility study by Chapman, Wood & Griswold Ltd. Grade reported in Northern Miner November 31, 1963.

REFERENCE: Western Miner & Oil Review, November 1963, page 32.

CAPSULE GEOLOGY

The area of the Lynn Creek zinc property is underlain by diorite of the Jurassic to Tertiary Coast Plutonic Complex which hosts a metamorphic pendant of Jurassic to Cretaceous volcanic and sedimentary rocks of the Gambier Group (Geological Survey of Canada, Map 1152A). Mineralization occurs in two areas, about 500 metres apart and 365 metres vertically, on Crown-granted lots 1609 (Kemptville Extension) and 1633A (Evening Star). Access is subject to regulations of the North Vancouver Water District. In both places, the mineralization consists mainly of massive dark sphalerite, with smaller amounts of pyrrhotite, galena, chalcopyrite, pyrite, cubanite, marcasite and

CAPSULE GEOLOGY

hematite. Gangue minerals include vuggy, coarse quartz, garnet and other skarn minerals.

The mineralization is classed as contact metamorphic, and is mainly restricted to limestone and calcareous sediments. The mineralized zones are located along favourable bedding planes and a series of shear zones and fissures. The strongest shears associated with the mineralization trend northwest. Local cross-faulting is intense, making it difficult to trace some of the mineralized zones.

Silver values are reported to vary from trace to 68.6 grams per tonne. Zinc values average about 9.0 per cent with higher grade ore averaging 20.0 per cent. In 1963, a feasibility study was carried out by Chapman, Wood and Griswold Ltd. and inferred ore reserves were estimated at 272,155 tonnes (Western Miner and Oil Review, November 1963, page 32). The grade is reported to be in the order of 20.0 per cent zinc (Northern Miner, November 31, 1963).

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- EMPR PF (Galloway, J.D. (1914): Memo on Lynn Creek Zinc Mines; Option Agreements, 1950, 1951, 1952 and Letters regarding agreements; Campbell, C.M. (1944): Summary Report on Lynn Creek Zinc Mines Ltd., 4 p.; Lee, H.G.A. (1911): Report on Zinc Deposits on the Kemptville Extension and Evening Star Claims, 3 p.; Emmens, N.W. (1912): Report on the Lynn Creek Zinc Mines, 8 p.; Galloway, J.D. (1914): Report on Lynn Creek Zinc Mines (Minister of Mines Report, 4 p.); Billingsley, P. (1919): Report on Lynn Creek Zinc Mines Limited, 10 p.; Billingsley, P. (1929): Prospectus Possibilities of the Lynn Creek Property, 3 p.; Starr, C.C. (1926): Report on the Property of the Lynn Creek Zinc Mines 14 p.; Maps of the Property to accompany 1926 Starr Report; Map of Workings by Billingsley; Roddick, J.A. (c. 1956): Geology of Vancouver and Coquitlam Map Area - in 092GSW General File)
- EMR MIN BULL MR 223 B.C. 102
- EMR MP CORPFILE (Lynn Creek Zinc Mines Ltd.; Palisades Zinc Mines Ltd.; Alscope Consolidated Ltd.)
- GSC MAP 42-1963; 1069A; *1152A; 1386A
- GSC MEM 335, p. 189
- GSC OF 611
- GSC P 53-28, p. 7
- GSC RPT 996, p. 31
- CANMET REPORT 1295
- N MINER Nov. 31, 1963
- W MINER *Nov. 1963, p. 32
- Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia Falconbridge File

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/17

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

In 1913, two main mineralized zones were developed on the Emerald group. Mineralization consisted primarily of pyrite and chalcopyrite with minor associated malachite and azurite. At the Adit zone, an adit was driven for about 70 metres following the strike of a shear zone, which hosted copper mineralization, averaging between 2.4 to 3.0 metres in width. About 30 metres to the southwest, a 9.2 metre shaft was sunk on another similar mineralized zone.

In 1917, a trial shipment of about 9 tonnes of sorted ore assayed 3.38 per cent copper, 39.77 grams per tonne silver and 4.11 grams per tonne gold (Minister of Mines Annual Report 1917, page 297). In 1918, a 100 tonne mill was erected but other than trial runs, no production was recorded.

Production recorded for the Bowena (Emerald and Snug Cove groups), amounts to 54 tonnes of ore shipped in 1907 which produced 5,754 grams of silver and 2,268 kilograms of copper.

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EMPR ASS RPT 1175
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GSC OF 611
GSC P *53-28
Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada, Cordilleran Section
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW005**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAST LYNN CREEK**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 25 08 N
LONGITUDE: 123 02 11 W
ELEVATION: 565 Metres

NORTHING: 5474024
EASTING: 497361

LOCATION ACCURACY: Within 1 KM

COMMENTS: Several copper showings are located on the ridge east of Lynn Creek (Geological Survey of Canada Map 42-1963).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ALTERATION: Silica
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Twin Island	Undefined Formation	

LITHOLOGY: Siliceous Limestone
Calcareous Schist

HOSTROCK COMMENTS: An undivided metamorphic assemblage of pre-Jurassic rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Contact Regional
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP:
GRADE: Hornfels
Granulite

CAPSULE GEOLOGY

Several small copper occurrences are reported on the ridge east of Lynn Creek and south of the Needles, including the Swayne Copper and Mountain Lion groups (refer to 092GSW001).

The mineralization located on the ridge east of Lynn Creek consists of chalcopyrite and pyrite disseminated along northeast trending shear zones in narrow bands of silicified limestone of the pre-Jurassic Twin Island Group. The zones are exposed over a few metres with a maximum width of less than 2.4 metres. Host rock includes calcareous schist.

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GSC OF 611
GSC P *53-28, p. 7
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1989/12/17
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSW006**

NATIONAL MINERAL INVENTORY: 092G6 Cu3

NAME(S): **BOWEN ISLAND**, GARDNER BAY, ISLANDER (L. 3370)

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 04 N
LONGITUDE: 123 23 04 W
ELEVATION: 35 Metres

NORTHING: 5472118
EASTING: 472107

LOCATION ACCURACY: Within 500M

COMMENTS: Location of shaft, near Gardner Bay on the west side of Bowen Island
(Geological Survey of Canada Paper 53-28).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Bornite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bowen Island	Undefined Formation	

LITHOLOGY: Meta Volcanic

HOSTROCK COMMENTS: Pre-Jurassic Bowen Island Group rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Wrangell	
METAMORPHIC TYPE: Contact Regional	RELATIONSHIP: Syn-mineralization Post-mineralization
	GRADE: Greenschist

CAPSULE GEOLOGY

Two shafts were sunk on a small copper prospect in Gardner Bay, on the west side of Bowen Island. The main shaft is reported to have intersected a thin seam of bornite along a shear zone in metavolcanic rocks of the pre-Jurassic Bowen Island Group. The shaft was reported to be about 23 metres deep and is now flooded. The reported mineralized showing has not been verified.

A limited amount of ore was taken, and shipped, from a stope 9 metres long (Property File - Brewer, M. 1907).

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GSC MAP 42-1963; 1069A; 1152A; 1386A
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Armstrong, J.E. (1990): Vancouver Geology, Geological Association of Canada, Cordilleran Section
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW007**

NATIONAL MINERAL INVENTORY: 092G6 Cu2

NAME(S): **NEWMAN CREEK**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 26 17 N
LONGITUDE: 123 14 04 W
ELEVATION: 50 Metres

NORTHING: 5476181
EASTING: 483003

LOCATION ACCURACY: Within 500M

COMMENTS: Located north of Newman Creek on the east side of Howe Sound above the Squamish Highway.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Malachite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Porphyritic Andesite
Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

The old propsect adit is located north of Newman Creek below the Squamish Highway. The prospect adit was driven on a sparsely mineralized, easterly striking shear zone in greenish, porphyritic andesite and breccia of the Jurassic to Cretaceous Gambier Group. The shear zone is mineralized with disseminated chalcopyrite which is partly altered to malachite (Armstrong, 1954, page 6).

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/07

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW008**

NATIONAL MINERAL INVENTORY:

NAME(S): **SWANSON GRANITE** L & H QUARRY, LOT 1331

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G05W

BC MAP:

LATITUDE: 49 28 37 N

LONGITUDE: 123 45 55 W

ELEVATION: 61 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry, about 1 kilometre west of Sechelt, near the centre of Lot 1331 and about 0.6 metre southwest of the Porpoise Bay Wharf (Geology, Exploration and Mining, 1970, page 492).

UTM ZONE: 10 (NAD 83)

NORTHING: 5480759

EASTING: 444562

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Commodity is granodiorite.

ASSOCIATED: Quartz Oligoclase Andesine Orthoclase Biotite

Hornblende

MINERALIZATION AGE: Jurassic

ISOTOPIC AGE: 150 Ma

DATING METHOD: Uranium/Lead

MATERIAL DATED:

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Industrial Min.

TYPE: R03 Dimension stone - granite

SHAPE: Regular

MODIFIER: Fractured

DIMENSION: 37 x 3 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Isotopic age date from Geological Survey of Canada Paper 90-1F, p. 99. Dimensions of working face in quarry.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

ISOTOPIC AGE: 150 Ma

DATING METHOD: Uranium/Lead

LITHOLOGY: Granodiorite

HOSTROCK COMMENTS: Age of Coast Plutonic Complex ranges from Jurassic to Tertiary. On the Sechelt Peninsula the Complex is Jurassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Swanson Quarry is a small granite quarry located about 1 kilometre west of Sechelt.

The quarry was developed in Jurassic granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

A small granite quarry was located on the top of a rounded knoll, about 0.64 kilometres southwest of the Porpoise Bay wharf at Sechelt. A similar granite quarry, the Trail Bay (092GNW051), lies 1.4 kilometres to the southwest.

The granodiorite is medium to coarse-grained and light grey in colour. Thin sections show the rock to be comprised of quartz and oligoclase-andesine, with lesser amounts of orthoclase, biotite and hornblende. The granodiorite is cut by many vertical joints spaced 0.3 to 1.8 metres apart. Blocks with dimensions of up to 0.9 by 0.9 by 0.9 metres have been removed from the quarry.

The quarry was opened in 1970 by L. and H. Swanson of Sechelt. Some time after its opening the quarry was observed to be 37 metres wide with a 2.4 to 3 metre high face. No production figures are available.

BIBLIOGRAPHY

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EMPR GEM *1970-492
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GSC MAP 42-1963; 1069A; 1386A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 371
REPORT: RGEN0100

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GSC OF 611
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DATE CODED: 1985/07/24
DATE REVISED: 1991/03/11

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092GSW009**

NATIONAL MINERAL INVENTORY:

NAME(S): **LULU ISLAND CLAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 09 59 N
LONGITUDE: 123 06 05 W
ELEVATION: 10 Metres

NORTHING: 5445958
EASTING: 492609

LOCATION ACCURACY: Within 500M

COMMENTS: Located on central Lulu Island, near Richmond (Bulletin 30, Fig. 1, occurrence #42).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Clay

HOSTROCK COMMENTS: Quaternary surface clay.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
COMMENTS: Quaternary sediments.

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The Lulu Island surface clay deposits are non-calcareous, grey, silty clays which are somewhat lensey in form, changing laterally into sand in many places within a short distance. They are safe, fast drying, low shrinkage clays. The clays were used for bricks but were found to be too soft and porous. However, pottery companies have successfully made porous water jugs (Geological Survey of Canada, Memoir 135, 1923, page 74).

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EMPR BULL *30, p. 48
GSC MAP 42-1963; 1069A; 1386A
GSC MEM *135, p. 74
GSC OF 611
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1989/12/06
DATE REVISED: / /

CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSW010**

NATIONAL MINERAL INVENTORY:

NAME(S): **THORMANBY ISLANDS CLAY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G05W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 29 19 N
LONGITUDE: 123 58 55 W
ELEVATION: 1 Metres

NORTHING: 5482238
EASTING: 428884

LOCATION ACCURACY: Within 500M

COMMENTS: Glacial clays occur at the heads of the bays on the Thormanby Islands.

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent stratified clay deposits related to the Puyallup Interglacial deposits.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage Wrangell
PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

Stratified clay deposits, probably related to the Puyallup Interglacial deposits, occur at the heads of the bays on the Thormanby Islands. The clay in these deposits is sandy and yellowish to bluish in colour. In most places it contains fairly abundant pebbles.

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW011**

NATIONAL MINERAL INVENTORY:

NAME(S): **MILLSTONE RIVER CLAY**, NANAIMO CLAY

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 07 35 N
LONGITUDE: 123 56 05 W
ELEVATION: 50 Metres

NORTHING: 5441927
EASTING: 431806

LOCATION ACCURACY: Within 1 KM

COMMENTS: Recent glacial clay located along the Millstone River, west of Nanaimo (Bulletin 30, fig. 1, occurrence #15).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent surficial glacial clay.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage Wrangell
PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

Near the turn of the century, it was reported that a surficial deposit of glacial clay along the Millstone River was producing red brick from soft mud puddled by horse-power and moulded by hand.

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW012**

NATIONAL MINERAL INVENTORY:

NAME(S): **BLUE FLAME** TIMBERLANDS, WELLINGTON

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 03 23 N
LONGITUDE: 123 57 30 W
ELEVATION: 198 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5434167
EASTING: 429985

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned workings on L.194, south of the old No. 8 mine (092GSW042).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted
COMMENTS: Coal bearing formation dips 45 degrees northeast.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale
Shaly Coal
Conglomerate
Mudstone

HOSTROCK COMMENTS: The coal is part of the Wellington seam of the Early Campanian Northfield Member.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Blue Flame mine is located on Lot 194, south of the Extension No. 8 mine (092GSW042). Prospecting by the Timberlands Colliery workers, resulted in the discovery of an outcrop of the Wellington seam south of the No. 8 mine. The seam ranges from 0.6 to 0.9 metres in thickness and is overlain by a bed of mudstone ranging from 25 to 76 centimetres in thickness. In places as much as 25 centimetres of excellent quality coal lies above the mudstone. The main roof comprises massive conglomerate. The coal-bearing formation dips 45 degrees to the northeast.

The coal is part of the Wellington seam of the Early Campanian Northfield Member which is part of the Upper Cretaceous Nanaimo Group, Extension Formation. Refer to the Bebens mine (092GSW026) for clarification on the Wellington seam in the Nanaimo Coalfield. About 1583 tonnes of high volatile bituminous rank coal was mined between 1952 and 1956. The mine was abandoned in January, 1958 due to persistent shaly coal.

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GSC P 47-22; 69-25; 70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 376
REPORT: RGEN0100

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DATE CODED: 1989/12/15
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CODED BY: LLD
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092GSW013**

NATIONAL MINERAL INVENTORY:

NAME(S): **GAMBIER ISLAND CLAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 28 47 N
LONGITUDE: 123 22 35 W
ELEVATION: 1 Metres

NORTHING: 5480855
EASTING: 472735

LOCATION ACCURACY: Within 500M

COMMENTS: Glacial clays occur at the heads of the bays on the south shore of Gambier Island (Bulletin 30, occurrence #30).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent stratified clay deposits related to the Puyallup Interglacial deposits.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Stratified clay deposits, probably related to the Puyallup Interglacial deposits, occur at the heads of the bays along the south shore of Gambier Island. The clay in these deposits is sandy and yellowish to bluish grey in colour. In most places it contains abundant pebbles. The clay on Gambier Island is described as a rather pure and compact boulder clay (Bulletin 30, page 48).

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Falconbridge File

DATE CODED: 1985/07/24
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CODED BY: GSB
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW014**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAPILANO VALLEY CLAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 21 24 N
LONGITUDE: 123 06 52 W
ELEVATION: 50 Metres

NORTHING: 5467112
EASTING: 491689

LOCATION ACCURACY: Within 500M

COMMENTS: Glacial Lake clay located in the Capilano Valley, 2.4 kilometres north of the Capilano suspension bridge.

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent glacial lake clay deposit.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

A well stratified, glacial lake deposit of very fine-grained highly plastic blue clay occurs about 2.4 kilometres north of the Capilano suspension bridge in the Capilano Valley.

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DATE CODED: 1985/07/24
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MINFILE NUMBER: **092GSW015**

NATIONAL MINERAL INVENTORY:

NAME(S): **LYNN VALLEY CLAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 23 29 N
LONGITUDE: 123 02 33 W
ELEVATION: 300 Metres

NORTHING: 5470967
EASTING: 496916

LOCATION ACCURACY: Within 500M

COMMENTS: Glacial clay occurs along Lynn Creek, about 8.0 kilometres north of North Vancouver (Bulletin 30, Figure 1, occurrence #34).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent glacial lake clay deposit.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

The Lynn Valley clays comprise a well stratified, light grey, non-calcareous glacial lake deposit. It is a fairly plastic clay with some pebbles. It contains about 25 per cent water, dries safely at 85 degrees centigrade with an average shrinkage of 4.9 per cent. The Lynn Valley clays are suitable for common brick and tile.

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FIELD CHECK: N

MINFILE NUMBER: **092GSW016**

NATIONAL MINERAL INVENTORY:

NAME(S): **TROUT LAKE DIATOMITE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 15 19 N
LONGITUDE: 123 03 43 W
ELEVATION: 15 Metres

NORTHING: 5455836
EASTING: 495492

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Trout Lake, Vancouver, near the corner of Nanaimo Street and East 12th Avenue.

COMMODITIES: Diatomite

MINERALS

SIGNIFICANT: Diatomite
COMMENTS: Siliceous, fresh water diatomaceous mud.
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: F06 Lacustrine diatomite

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Diatomite

HOSTROCK COMMENTS: Diatomaceous mud.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
COMMENTS: Quaternary, fresh water diatomaceous mud.

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

The bottom of Trout Lake, in Vancouver, hosts diatomaceous mud, consisting of the siliceous remains of fresh water Melosira diatoms. In 1933, the City of Vancouver granted Coast Quarries Ltd. the right to remove several hundred kilograms of diatomaceous mud. Several samples were shipped to Germany and to American equipment manufacturers for testing. The material was classed as gritty with potential for use in sugar filtration.

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REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW017**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOUTH SECHELT SHORES**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G05W 092G05E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 28 14 N
LONGITUDE: 123 45 05 W
ELEVATION: 1 Metres

NORTHING: 5480039
EASTING: 445561

LOCATION ACCURACY: Within 5 KM

COMMENTS: Stratified clay deposits occur at the heads of the bays along the south shores of Sechelt peninsula from Gibsons Landing to Sechelt along the main coast to Welcome Point.

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Recent

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Recent	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Glacial Clay

HOSTROCK COMMENTS: Recent stratified glacial clay deposits.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Stratified clay deposits, probably related to the Puyallup Inter-glacial deposits, occur at the heads of the bays along the south shores of Sechelt peninsula, extending from Gibsons Landing to Sechelt to Welcome Point. The clay in most of these deposits is somewhat sandy, yellowish to bluish grey in colour and in most places contains fairly abundant pebbles.

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW018**

NATIONAL MINERAL INVENTORY:

NAME(S): **BURRARD INLET SHALE**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 17 19 N
LONGITUDE: 123 02 05 W
ELEVATION: 1 Metres

NORTHING: 5459541
EASTING: 497475

LOCATION ACCURACY: Within 500M

COMMENTS: Tertiary shale occurs on the south side of Burrard Inlet, near the Second Narrows Bridge (Bulletin 30, Figure 1, occurrence #38).

COMMODITIES: Shale

MINERALS

SIGNIFICANT: Shale
MINERALIZATION AGE: Tertiary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R02 Expanding shale

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Tertiary

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Shale

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Fraser Lowland

CAPSULE GEOLOGY

A Tertiary shale occurs along the south side of Burrard Inlet near the Second Narrows Bridge. The top 1.8 to 3.0 metres consists of grey to white clay shale which has a crumbly texture and high shrinkage ratio. Studies indicate that the fire shrinkage is excessive to be of ceramic value.

Below this unit, is a blue-grey shale which has good plasticity. It is semi-refractory but also undergoes excessive shrinkage for use in ceramics.

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DATE CODED: 1985/07/24
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CODED BY: GSB
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW019**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAST WELLINGTON SHALE**

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W 092F01E
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 11 29 N
LONGITUDE: 124 00 05 W
ELEVATION: 50 Metres

NORTHING: 5449215
EASTING: 427037

LOCATION ACCURACY: Within 500M

COMMENTS: The East Wellington quarry was located about 6.4 kilometres west of Nanaimo (Bulletin 30, Fig. 1, occurrence #17).

COMMODITIES: Shale

MINERALS

SIGNIFICANT: Shale
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R02 Expanding shale

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Haslam	

LITHOLOGY: Shale

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

Wrangell
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Georgia Depression

GRADE:

CAPSULE GEOLOGY

The East Wellington shale quarry is located about 6.4 kilometres west of Nanaimo near the East Wellington Coal Shaft #1 and the East Wellington Colliery. The shale mined belongs to the upper section of the Haslam Formation which is part of the Upper Cretaceous Nanaimo Group. The shales have been used successfully for pressed-brick manufacturing. They are hard shales with an average shrinkage of 4.6 per cent and a tensile strength of 70 p.s.i. (Bulletin 30, page 57).

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DATE CODED: 1989/12/06
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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW020**

NATIONAL MINERAL INVENTORY: 092G4 Cu1

NAME(S): **THISTLE** DUFF, GOOD,
STRIKE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)

LATITUDE: 49 00 59 N
LONGITUDE: 123 53 05 W
ELEVATION: 60 Metres

NORTHING: 5429655
EASTING: 435311

LOCATION ACCURACY: Within 500M

COMMENTS: The Thistle claim is located about 1.6 kilometres northeast of the summit of Mt. Hayes.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Molybdenite
ASSOCIATED: Quartz Feldspar Mica
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal
DIMENSION: 0031 x 0003 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Vein.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous Mesozoic-Cenozoic	Nanaimo	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Granodiorite
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: Saanich granodiorite of the Jurassic to Tertiary Coast Plutonic Complex intrudes Nanaimo Group sedimentary rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Insular PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The old Thistle adit is located at the base of a line of cliffs about 1.6 kilometres northeast of the summit of Mt. Hayes. The adit lies within Saanich granodiorite of the Jurassic to Tertiary Coast Plutonic Complex which intrudes Upper Cretaceous Nanaimo Group sediments comprised of shale, sandstone and conglomerate.

The showing consists of a mineralized vein, traceable over 31 metres and from 5 to 305 centimetres wide hosted in granodiorite. The vein is coarsely crystalline, composed mainly of quartz irregularly intergrown with feldspar and minor mica. This vein is reported to host up to 10 per cent chalcopyrite, bornite and molybdenite. Development consists of two short adits connected by a short inclined level and a stope.

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FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW021**

NATIONAL MINERAL INVENTORY:

NAME(S): **GABRIOLA ISLAND QUARRY**

STATUS: Past Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 10 29 N

LONGITUDE: 123 51 55 W

ELEVATION: 30 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the west coast of Gabriola Island, just south of Descanso Bay.

UTM ZONE: 10 (NAD 83)

NORTHING: 5447239

EASTING: 436933

COMMODITIES: Sandstone Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Quartz Orthoclase Plagioclase Biotite

COMMENTS: Sandstone.

ALTERATION: Sericite

COMMENTS: Feldspar is altered to sericite.

ALTERATION TYPE: Sericitic

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Sedimentary Industrial Min.

TYPE: R06 Dimension stone - sandstone

SHAPE: Regular

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous

GROUP

Nanaimo

FORMATION

Gabriola

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sandstone

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

Building stone from this sandstone quarry, located on the west coast of Gabriola Island just south of Descanso Bay, was used to construct the main Post Office in Victoria, the Federal Life Building (Williams Building) and the Holy Rosary Cathedral in Vancouver. Blocks 1.4 metres across by 1.5 metres deep, were quarried for use as grindstones in pulp mills in the coast area. No production figures are available.

The area is underlain by the Upper Cretaceous Nanaimo Group, Gabriola Formation. The sandstone is medium-grained (0.6 to 2.0 millimetres), displays an even texture and has a light to medium brown tone. Small angular quartz crystals and blades of biotite (up to 3.0 millimetres) speckle the rock. Occasional pebbles (up to 4.0 centimetres) and coarse sand concretions disrupt the continuity of the bedding.

In thin section, the quartz grains range from 0.25 to 1.5 millimetres and comprise 70 per cent of the rock. Other minerals include orthoclase, plagioclase and biotite. Alteration of feldspar to sericite is pronounced.

The quarry has a length of 45 metres, with worked faces between 2 to 15 metres high, developed parallel to northeast striking joints. Vertical and horizontal joints are widely spaced with 90 per cent spaced more than 100 centimetres apart. Beds dip 10 to 15 degrees northeast and strike northwest.

Potential reserves of stone extend 20 metres southeast of the worked face and beyond this the area is covered by overburden.

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GEOLOGICAL SURVEY BRANCH
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CANMET RPT 452, Vol. V
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British Columbia, M.Sc. Thesis, University of British Columbia
Victoria Times Colonist, June 22, 1997, p. C8

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/12

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW023**

NATIONAL MINERAL INVENTORY:

NAME(S): **GABRIOLA ISLAND SHALE** GABRIOLA SHALE, GABRIOLA CLAY

STATUS: Past Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 08 29 N

NORTHING: 5443470

LONGITUDE: 123 47 05 W

EASTING: 442766

ELEVATION: 50 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the northeasterly shore of False Narrows, near the southwest end of Gabriola Island.

COMMODITIES: Shale Clay

MINERALS

SIGNIFICANT: Shale Clay

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Residual Sedimentary Industrial Min.

TYPE: R02 Expanding shale

DIMENSION: 0005 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Shale averages 4.6 metres in thickness.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous

GROUP

Nanaimo

FORMATION

Northumberland

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Shale
Clay

HOSTROCK COMMENTS: Surface shale deposit which is part of the lower Northumberland Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

A shale deposit was worked by the Gabriola Island Shale Product Company on the northeast shore of False Narrows, near the southwest end of Gabriola Island. No production figures are available.

Shale on Gabriola Island is part of the Upper Cretaceous Nanaimo Group, Northumberland Formation. The Northumberland Formation consists of shales, sandstones and conglomerates with shales occurring at the top and bottom of the formation. The quarried shale belongs to the bottom portion of the Northumberland Formation.

The quarry is located within the weathered part of the lower shale and averages about 4.6 metres in thickness. The shale ranges from blue to brown in colour and shows good to moderate plasticity. Good-quality dry-press brick was made from this surface shale. Analyses of samples of the shale used in the brick-making machines in 1918 were reported to average about 55.6 per cent silica, 10.1 per cent ferric oxide, 20.0 per cent alumina, trace lime, 0.3 per cent magnesia, 0.1 per cent sulphur, 4.9 per cent alkalis and 9.0 per cent ignition for the blue shale (Minister of Mines Annual Report 1918, page 280).

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GSC MAP *42-1963; 1069A; 1386A

GSC MEM *47, p. 57; *51; *65, p. 17

GSC OF 611

GSC P 47-22

Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/07

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW023**

MINFILE NUMBER: **092GSW025**

NATIONAL MINERAL INVENTORY:

NAME(S): **ALEXANDRIA**, SOUTH WELLINGTON, CANADIAN COLLIERIES,
NO. 5, WELLINGTON EXTENSION, ALEXANDRA

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 05 58 N
LONGITUDE: 123 54 05 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438902
EASTING: 434202

LOCATION ACCURACY: Within 500M

COMMENTS: Located along the E & N Railway, west of South Wellington (occurrence #62, Geological Survey of Canada Paper 47-22). See South Wellington No. 5 (092GSW038) for production from 1931 to 1935.

COMMODITIES: Coal Fireclay

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary Industrial Min.
TYPE: A04 Bituminous coal R02 Expanding shale
SHAPE: Irregular
MODIFIER: Folded
DIMENSION: 9 Metres STRIKE/DIP: TREND/PLUNGE:

COMMENTS: Strata strike north-northwest and dip shallowly towards the northeast. A northwest trending fault runs to the west and northwest of the mines. The coal is up to 9.1 metres thick.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Clay
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian Newcastle Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Georgia Depression
RELATIONSHIP: Regional
GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Alexandria Mine is located along the E&N Railway, west of South Wellington. The mine produced high volatile, bituminous rank coal between 1884 to 1902. The coal is part of the Douglas Seam which occurs within the Upper Cretaceous Nanaimo Group, Pender Formation (Newcastle Member). The seam varies in thickness from 0.1 to 9.1 metres and is underlain by undulating shales. Overlying the coal seam, which tends to be sheared with abundant slickensides, are sandy shales and minor conglomerate of the Protection Formation, Nanaimo Group.

The Alexandria Colliery, which processed the volatile coals, also manufactured coke, as well as fire brick and ordinary brick. See South Wellington No. 5 (092GSW038) for production from 1931 to 1935.

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EMPR AR 1884-428; 1885-506; 1886-240,245; 1891-585; 1892-555; 1893-1100; 1894-765; 1895-719; 1896-589; 1897-625,633; 1898-1165,1180; 1899-828,835; 1900-964,968; 1901-1210; 1902-270; 1930-396; 1931-217; 1932-263; 1933-326; 1934-G2,G24; 1935-G2,G21
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EMPR COAL ASS RPT *92
EMPR FIELDWORK 1987, pp. 441-450; 1988, pp. 553-558
GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51, pp. 110-117; 69

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 392
REPORT: RGEN0100

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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW026**

NATIONAL MINERAL INVENTORY:

NAME(S): **BEBAN'S** BEBAN, EXTENSION NO. 1,
LAKE ROAD

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 06 04 N
LONGITUDE: 123 59 55 W
ELEVATION: 275 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Abandoned mine located north of Berkley Creek (Geological Survey of
Canada Paper 47-22, occurrence #31).

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5439176
EASTING: 427108

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Carbonaceous Shale
Shale
Sandstone

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian
Northfield Member.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

Coal was first reported in the Nanaimo area in 1849. The Nanaimo Coalfield was developed and more or less depleted between 1852 and 1953, during which time a total of 49 megatonnes of coal was produced.

Production in the Nanaimo Coalfield was from three major seams: the Wellington, the Newcastle and the Douglas. The Wellington seam was worked in the Wellington field (Wellington/Northfield 092GSW048), the East Wellington field (Chandler/East Wellington 092GSW030 and Wakesiah 092GSW040), the Harewood mine (092GSW033), and further to the south, the Extension field (Extension No.1 thru 3 092GSW028, Extension No.4 092GSW053, Extension No. 8 092GSW042, Beban's 092GSW 026, Old No. 1 Slope/Vancouver 092GSW027, Extension Prospect 092GSW 036, White Rapids 092GSW043). The mines are separated by faulted strata or areas where the seam thins to unprofitable thicknesses. The total workable area was 19.3 kilometres long and averaged 1.6 kilometres in width.

The main Wellington seam (No. 1) occurs in the Northfield Member at the base of the Early Campanian Extension Formation of the Upper Cretaceous Nanaimo Group. The coal is commonly underlain by sandstone and overlain by conglomerate of the Millstream Member. Shale partings are common in the main seam and thickness is extremely variable, ranging from 1.2 to 2.13 metres, due to minor folds, faults or bands usually in the roof (the base of the overlying Millstream Member is often a scour surface). The average thickness is 1.9 metres inclusive of minor dirt bands. The floor is marked by a distinctive rooty bed. The main seam, consisting of highly volatile bituminous rank coal, was the main source of production.

Minor workings were established on three upper seams designated the Wellington No.2 or Little Wellington, Wellington No.3 and Wellington No.4. These rarely exceed 0.60 metres in thickness and

MINFILE NUMBER: **092GSW026**

CAPSULE GEOLOGY

lie above the Wellington at intervals of 10.67 metres, 18.29 metres and 22.9 metres, floor to floor.

The strata strike northwest and dip towards the northeast (approximately 10 degrees). To the south and west, the beds are cut off by a northwest-southeast trending normal(?) fault and a number of broad northwest trending folds occur in the coal bearing formation to the north and east.

Beban's Mine was brought into production in 1936 and operated until 1941. The mine is situated on the same site as the Old No.1 Slope or Chambers' Mine (092GSW027), and was developed to mine part of the coal that was left by the former operators. Operations commenced in July, 1936 and in 140 working days, 2,174 tonnes of highly volatile, bituminous rank coal was produced. The mine produced about 75,962 tonnes of coal over a period of about six years. The property was abandoned in July, 1941 when the Main slope pillars were mined almost to the portal.

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1944-A86,A116; 1945-A137,A156; 1946-A216,A235
EMPR BULL *14, p. 18
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EMPR FIELDWORK 1987, pp. 441-450; 1988, pp. 553-558
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GSC MEM 51; 69
GSC OF 611
GSC P *47-22; *70-53; *89-4
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British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/22

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW027**

NATIONAL MINERAL INVENTORY:

NAME(S): **OLD NO. 1 SLOPE**, VANCOUVER, CHAMBERS,
CHAMBERS NO. 4, CHAMBERS STRIP EXTENSION, CHAMBERS NO. 5 EXTENSION,
MIDAN EXTENSION, NO. 1,
NO. 3

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 06 16 N
LONGITUDE: 123 59 39 W
ELEVATION: 215 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439542
EASTING: 427437

LOCATION ACCURACY: Within 500M

COMMENTS: Location of abandoned mine (Chambers and Vancouver) (Geological
Survey of Canada Paper 70-53, Figure 12).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Carbonaceous Shale
Shale

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian
Northfield Member.

GEOLOGICAL SETTING

TECTONIC BELT: Insular

PHYSIOGRAPHIC AREA: Georgia Depression

TERRANE: Overlap Assemblage

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Old No. 1 Slope and Vancouver workings of Canadian Collieries (Dunsmuir) Ltd. are located in the Extension field in the vicinity of the more recent Chambers mine. Historical production records for these operations during the turn of the century are not available. The coal is part of the Wellington seam which is part of the Upper Cretaceous Nanaimo Group, Extension Formation (Early Campanian Northfield Member). Refer to the Bebens mine (092GSW026) for further clarification of the Wellington Seam in the Nanaimo Coalfield.

The Chambers mine commenced operations in 1933 and underground mining consisted mainly of recovering pillars left by the former owners. Between 1933 and 1952, the mine produced over 50,000 tonnes of highly volatile, bituminous rank coal. In the latter part of 1952, a small strip pit was opened up within a section of the Wellington seam lying close to the surface in the vicinity of the old Vancouver Slope workings. The seam dipped gently and the thickness of the overburden varied between 2.4 to 4.6 metres. The typical seam section on the property includes: 1.34 metres of top coal (partially eroded); 0.45 metre of carbonaceous shale; 0.43 metre of coal; 0.1 metres of rock; and 0.5 metre of coal. By the end of 1954, all available surface coal was depleted, and early in 1955 testing was started to determine the continuity of the seam underground. At the end of 1955, the slope reached a point about 122 metres from the portal where the coal varied from 1.8 to 2.4 metres in thickness. The coal was mined by picking out the middle band of carbonaceous shale with hand-picks. In 1961, this mine, formerly known as Chambers No. 5 mine, was operated by the Midan brothers. The Midan mine continued operations until the end of 1965.

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1935-G2,G22; 1936-G4,6,38; 1937-G9,28; 1938-G4,21,31;
1939-115,135; 1940-101,121; 1941-96,115; 1942-94,96,97,112;
1943-89,109; 1944-86,88,89,93,117; 1945-137,156;
1946-216,235; 1947-236,252; 1948-202,219; 1949-276,293;
1950-242,259; 1951-247,272; 1952-284,303; 1953-224,241;
1954-212,229; 1955-130,146; 1956-196,211; 1957-120,132;
1958-134,144; 1959-252,263; 1960-217,227; 1961-252,263;
1962-257,267; 1963-238,255; 1964-307,316; 1965-390,400;
1966-385
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GSC MAP 42-1963; 1069A; 1386A
GSC MEM 51; 69
GSC OF 611
GSC P *47-22; 69-25; *70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/03

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

The mines were worked chiefly by pillar and stall method, almost continuously from about 1895 to 1937. The whole of the Extension Colliery was shut down and abandoned in 1937. In 1941, the No. 1 and No. 2 mines were reopened as the Deer Home Mine which produced high volatile bituminous rank coal between 1942 and 1947. In 1947, all openings to the mine were securely closed or filled by caving.

Coal was recovered from these old workings from 1947 to 1952. In 1957 the old No. 2 Mine Extension mine was reopened and coal was mined until the reserves were depleted in 1959.

J. Unsworth and A. Dunn worked the mine as the Undun No. 1 to 4 to 1967.

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- EMPR AR 1895-719; 1896-587,589; 1897-623,626,632; 1898-1181; 1899-828; 1900-962,969; 1901-1211-1213; 1902-271; 1903-223; 1904-278; 1905-229; 1906-205,227; 1907-181; 1908-207; 1909-188,235; 1910-190; 1911-232-234; 1912-261; 1913-349; 1914-447; 1915-391; 1916-474; 1917-407-410; 1918-428; 1919-321-324; 1920-265,287-291; 1921-277,298-300; 1922-284,308-311; 1923-311,332-336; 1924-301,321-325; 1925-336,386-389; 1926-341,388-393; 1927-370,422-425; 1928-392,456-459; 1929-404,462; 1930-318,395; 1931-178,217; 1936-G38; 1937-G29; 1938-G4,G32; 1941-96,116; 1942-94,96,112; 1943-89,109; 1944-86,88,117; 1945-137,157; 1946-216,235; 1947-236,252; 1948-202,212; 1949-276,293; 1950-242,259; 1951-247,272; 1952-303; 1954-212,231; 1955-130,147; 1956-196;212; 1957-120,133; 1958-134,145; 1959-252,263-264; 1960-217,227,228; 1961-252,264; 1962-257,268; 1963-238,256; 1964-307,317; 1965-390,401; 1966-375,385; 1967-A47,450
- EMPR COAL ASS RPT *92
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/19

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW029**

NATIONAL MINERAL INVENTORY:

NAME(S): **DOUGLAS SEAM MINES**, DOUGLAS SLOPE, DOUGLAS SHAFT,
NEW DOUGLAS SLOPE, NEW DOUGLAS, SOUTHFIELD 1,2,4 SLOPES,
SOUTHFIELD 3,5, NO. 5, SOUTH FIELD,
CHASE RIVER, NANAIMO COLLIERY, VANCOUVER COAL

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 08 59 N
LONGITUDE: 123 56 11 W
ELEVATION: 40 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5444522
EASTING: 431716

LOCATION ACCURACY: Within 500M

COMMENTS: Location of the Douglas mine. The remaining Douglas Seam mines are located along strike northwest and southeast of the above (Geological Survey of Canada Paper 47-22). See No. 1 (092GSW041) for Southfield, Douglas and Chase River production after 1882. Production for Fitzwilliam (092GSW045) is included here.

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted

COMMENTS: The seam generally strikes northwest and dips northeast. Two sets of faults are common; northwest trending and east to east-northeast trending.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Newcastle Member of the Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Douglas Seam occurs within the Newcastle Member of the Upper Cretaceous Pender Formation (Nanaimo Group) approximately 18 metres above the Newcastle Seam. The seam area extends from Newcastle Island to just south of the Nanaimo River in a north-northwest trending zone. The Douglas Seam has been mined extensively from a workable area of 15.3 kilometres by 2.8 kilometres. The most important mine was the No. 1 mine (092GSW041) which was in operation for 55 years (1883 to 1938) and produced approximately 16,329,000 tonnes. Along strike from the No. 1 mine, and the Douglas Slope and shaft in the north, are the New Douglas Slope, New Douglas mine, 1911 (New Douglas Slope), Southfield No. 1, No. 2, and No. 4 Slopes, Southfield No. 3 and No. 5 mines, Reserve mine (092GSW037), Fiddick and Richardson Slopes (092GSW034) and the Morden mine (092GSW032). To the south of these are the Alexandria (092GSW025) and Granby mines (092GSW051).

The seam is high volatile bituminous in rank and has similar chemical characteristics to the Wellington seam. Other similarities include the rapid and frequent thickness variations and the structural features. Seam thickness averages 1.5 to 1.8 metres and is up to 9.1 metres. Variations in thickness are commonly caused by undulations in the floor which is predominantly shale. The seam is overlain by conglomerate to shale and sandy shale. Rock partings within the seam

MINFILE NUMBER: **092GSW029**

CAPSULE GEOLOGY

are common. Structures include pinches, swells, small faults, shears and rolls.

The Douglas seam strikes northwest and generally dips shallowly northeast. Northwest trending faults are common, bounding the area to the west for example, and an east-west to east-northeast set of faults also cut the coal bearing strata. The seam tends to be strongly sheared with abundant slickensides.

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371; 1883-415; 1884-427; 1885-504; 1886-243; 1887-284; 1888-331;
1889-296; 1890-384; 1891-581; 1892-551; 1893-1096; 1894-726;
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1901-1206; 1911-230; *1912-257-258
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EMPR FIELDWORK 1987, pp. 441-450; 1988, pp. 553-558
GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51; 69
GSC OF 611
GSC P *47-22; 69-25; *70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1986/05/14

CODED BY: GSB
REVISED BY: EVFK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW030**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAST WELLINGTON**, EAST WELLINGTON SHAFT 1-2, CHANDLER,
JINGLE POT 1, LEWIS, LITTLE JINGLE POT,
NEW EAST WELLINGTON

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 10 53 N
LONGITUDE: 123 59 53 W
ELEVATION: 70 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: These mines are located in a roughly northwest-southeast trending area west of Nanaimo and north of the Reservoir Lakes. Location of the East Wellington mine (Geological Survey of Canada Paper 47-22).

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5448100
EASTING: 427266

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted
COMMENTS: The strata strike northwest and dip approximately 10 degrees northeast (with steeper dips to the west).

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Carbonaceous Shale
Shale
Sandstone

HOSTROCK COMMENTS: The coal is part of the Wellington seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression
RELATIONSHIP:
GRADE: HVol Bituminous

CAPSULE GEOLOGY

The main (or No. 1) Wellington Seam was mined at the East Wellington Colliery No. 2 Shaft, No. 1 Shaft, the East Wellington mine, and the Jingle Pot (No. 1 East Wellington mine) in order from northwest to southeast along the strike of the coal seam. The mines are separated by faulted strata or areas where the seam thins to unprofitable thicknesses. The seam occurs within the Early Campanian Northfield Member of the Upper Cretaceous Extension Formation (Nanaimo Group). Thicknesses of the seam are extremely variable within the mines mainly due to faults, folds, and other roof undulations. Quality of the seam is variable, ranging from clean coal with few shale partings to carbonaceous shale. The coal is high volatile bituminous in rank. The floor of the seam is sandstone while the roof ranges from sandstone to shale and shaly sandstone. Refer to the Bebens mine (092GSW026) for a detailed description of the Wellington Seam and the Nanaimo Coalfield operations.

The strata strike northwest and dip towards the northeast (approximately 10 degrees). To the south and west the beds are cut off by a northwest-southeast trending normal(?) fault and a number of gentle broad northwest trending folds occur in the coal bearing formation to the north and east.

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1886-240,245,249; 1887-281,287,292; 1888-329,335,341;
1889-294,299,305; 1890-381,387,393; 1891-578,585,592;

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1896-589; 1907-190; 1908-215-216; 1909-244-245; 1909-244,
245; 1910-195-196; 1911-238-239; 1912-269-270; 1913-357,
358; 1914-455-456; 1915-397-398; 1916-462-463; 1917-394-396;
1918-416-417; 1919-312; 1920-265,294; 1921-295; 1922-284,305;
1923-311,329-330; 1924-301,318-319; 1925-336,395; 1926-341,
397-398; 1927-370,432-433; 1928-392,467; 1930-318,398;
1931-178,219; 1932-228,264; 1933-277,328; 1934-G2,G25;
1935-G2,G22; 1936-G4,G38; 1937-G5,G27,G29; 1938-G4,G32;
1939-A115,A135; 1940-A101,122
EMPR COAL ASS RPT *92
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GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51; 69
GSC OF 611
GSC P *47-22; 69-25; *70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1986/05/13

CODED BY: GSB
REVISED BY: EVFK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW031**

NATIONAL MINERAL INVENTORY:

NAME(S): **EXTENSION NO. 4, WELLINGTON**

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 05 24 N
LONGITUDE: 123 56 03 W
ELEVATION: 91 Metres

NORTHING: 5437881
EASTING: 431796

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned Extension No. 4 mine south of Harewood Lake and east of Stark Lakes (Geological Survey of Canada Paper 70-53, Fig. 12).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular

PHYSIOGRAPHIC AREA: Georgia Depression

TERRANE: Overlap Assemblage

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Extension No. 4 mine, owned by Canadian Collieries (Dunsmuir) Ltd., opened up in 1910, closed in 1913 then reopened that same year and operated until 1917. The mine is part of the Extension Colliery which consists of four mines, all on the Wellington seam within the Extension basin. The Extension No. 1, No. 2 and No. 3 mines (092GSW028), are situated on the southwest limb of the Extension anticline and the Extension No. 4 in the northeast limb.

The seam worked in the No. 4 mine is of high volatile bituminous rank and occurs toward the base (Early Campanian Northfield Member) of the Upper Cretaceous Nanaimo Group, Extension Formation. The seam is interbedded with sandstone, shale and conglomerate. The floor is generally sandstone and the roof varies from shale to conglomerate. Refer to the Bebens mine (092GSW026) for a description of the Wellington Seam in the Nanaimo Coalfield.

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EMPR AR 1910-191; 1912-262; 1913-350; 1914-448; 1915-392; 1916-475; 1917-409
EMPR COAL ASS RPT *92
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DATE CODED: 1986/05/14
DATE REVISED: 1989/12/07

CODED BY: EVFK
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW032**

NATIONAL MINERAL INVENTORY:

NAME(S): **MORDEN**, MORDEN COLLIERY, PACIFIC COAST

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 05 53 N
LONGITUDE: 123 51 59 W
ELEVATION: 45 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438718
EASTING: 436755

LOCATION ACCURACY: Within 500M

COMMENTS: Part of the South Wellington coal seams, located east of the Nanaimo River about 3.2 kilometres from South Wellington (Geological Survey of Canada Paper 47-22, occurrence #67). Production for 1917 is included with the Fiddick (092GSW032).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded
COMMENTS: Seam strikes northwest and dips shallowly northeast.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: The coal seam is part of the Douglas Seam in the Early Campanian Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression
RELATIONSHIP: Regional
GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Morden mine operated on part of the Douglas Seam which occurs in the Early Campanian Newcastle Member within the Upper Cretaceous Pender Formation, Nanaimo Group. The seam strikes northwest and generally dips shallowly to the northeast. The Douglas Seam is highly volatile, bituminous rank coal and varies in thickness from 0.1 to 9.1 metres and averages between 1.5 to 1.8 metres. The seam is underlain by undulating shales and is overlain by conglomerate to shale and sandy shale.

The Morden mine opened in 1912 and operated between 1913 to 1921, then was shut down and re-opened for one year in 1930. The Morden mine was owned by Pacific Coast Coal Mines Ltd., which consisted of the Morden, Fiddick (092GSW034) and Suquash (092L 067) mines. Production for the Morden mine in 1917 is combined with the Fiddick. The mine was closed between 1921 and 1930. The shaft was re-opened briefly, in 1930, by Canadian Coal and Company, Ltd.; it produced a little over 3000 tonnes.

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EMPR AR 1912-267; 1913-353; 1914-450,452; 1915-396; 1916-464,466;
1917-397-398; 1918-418-419; 1919-313; *1920-265,279; 1921-277;
1922-284,306; 1923-311; 1924-313; 1930-318,399; 1931-219
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EMPR FIELDWORK 1987, pp. 441-450; 1988, pp. 553-558
GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51, pp. 110-117; 69
GSC OF 611
GSC P *47-22; 69-25; *70-53; 89-4

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 405
REPORT: RGEN0100

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Times Colonist Islander, Mar.21, 1999, pp. 8-9

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW033**

NATIONAL MINERAL INVENTORY:

NAME(S): **HAREWOOD COLLIERY**, HAREWOOD, FURNACE PORTAL,
 LEWIS NO. 2, LEWIS NO. 3, BIGGS

STATUS: Past Producer
 REGIONS: British Columbia, Vancouver Island
 NTS MAP: 092G04W
 BC MAP:
 LATITUDE: 49 07 58 N
 LONGITUDE: 123 57 35 W
 ELEVATION: 137 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: Abandoned Harewood mine (Geological Survey of Canada Paper 70-53, Fig. 12). See No. 1 (092GSW041) for early production.

Underground
 MINING DIVISION: Nanaimo
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5442660
 EASTING: 429991

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
 MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
 CLASSIFICATION: Fossil Fuel Sedimentary
 TYPE: A04 Bituminous coal
 SHAPE: Irregular
 MODIFIER: Folded Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
 Carbonaceous Shale

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
 TERRANE: Overlap Assemblage
 METAMORPHIC TYPE: Regional
 PHYSIOGRAPHIC AREA: Georgia Depression
 RELATIONSHIP:
 GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Harewood mine first opened in 1875, on the coal outcropping at the surface of Harewood Ridge. A small surface area was worked until 1894 when operations were suspended. The mine was again opened in 1902, when a shaft was sunk to the dip of the old workings. Operations were suspended in 1904.

In August of 1917, the tunnel driven by early operators was cleared and extended. About 300 metres from the original workings coal averaging 0.6 to 3.7 metres in thickness was encountered. The coal is part of the Wellington seam in the Early Campanian Northfield Member within the Upper Cretaceous Nanaimo Group, Extension Formation. The coal is of high volatile bituminous rank and occurs within a series of faulted carbonaceous shales.

A proximate analysis of coal from the Harewood mine is as follows (*Geological Survey of Canada, Memoir 51, page 99):

Moisture	Volatile Combustible	Fixed Carbon	Ash	Sulphur	Fuel Ratio	B.T.U.
1.58	33.84	52.17	11.85	0.56	1.53	12238

Between 1917 and 1923, the Harewood Colliery produced 769,500 tonnes of coal. Operations were abandoned in January of 1923. No production records are available prior to 1917.

The Furnace Portal mine, situated on Harewood Ridge, was developed in 1945 to recover some coal left in the immediate vicinity of the old Furnace Portal airway to the Harewood mine. The area was originally worked in 1864 but no records or plans are available. The mine operated between 1945 and 1951 producing about 4700 tonnes of coal. The Furnace Portal mine was mined out and production ceased in March, 1951. The area was mined as the Biggs in 1951.

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1894-763; 1900-960; 1901-1206; 1902-262,270; 1903-222; 1904-278;
1909-187; 1917-392; *1918-414-415; *1919-308,310; 1920-265,276;
1921-277,288; 1922-284,297; 1923-311,322; 1941-A96,A115;
1942-A94,A113; 1943-A89,A110; 1944-A89,A117; 1945-137,157;
1946-216,235; 1947-A236,252; 1948-202,220; 1949-276,293;
1950-242,259; 1951-247,272
EMPR COAL ASS RPT 92
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GSC MAP *42-1963; 1069A; 1386A
GSC MEM *51, pp. 99-108; 69, p. 75
GSC OF 611
GSC P *47-22; 69-25; *70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,
British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1989/12/06

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW034**

NATIONAL MINERAL INVENTORY:

NAME(S): **FIDDICK COLLIERY**, SOUTH WELLINGTON COLLIERY, FIDDICK,
RICHARDSON, IDA CLARA, CLIFFORD,
BIG FLAME, SUNSHINE, ROWBURN,
PACIFIC COAST

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 06 19 N
LONGITUDE: 123 54 20 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439554
EASTING: 433905

LOCATION ACCURACY: Within 500M

COMMENTS: Old mine workings are located along the E & N Railway west of South Wellington (Geological Survey of Canada Paper 47-22, occurrence #59). Production in 1913 and 1917 from the Morden (092GSW032) is included with the Fiddick.

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Fiddick Colliery, or what was known as the Fiddick and Richardson slopes of the South Wellington Colliery, operated between 1907 and 1912. In 1913, the Fiddick Colliery was owned and operated by Pacific Coast Coal Mines Ltd., which continued the coal mining operations up to 1917. The Fiddick mine reopened and resumed coal production in 1927 and operated until 1939. Operations consisted mainly of recovering pillars that were left by the former owners. Similarly, the Richardson mine or Ida Clara Colliery, (formally the Richardson Slope), reopened in 1931 and operations until 1940 consisted of recovering pillars of coal left by the former owners.

The coal seam worked was known as the old "South Wellington coal", a continuation of the Douglas Seam. The coal occurs in the Early Campanian Newcastle Member within the Upper Cretaceous Pender Formation, Nanaimo Group. The seam strikes northwest and generally dips shallowly northeast. The seam tends to be strongly sheared with abundant slickensides and ranges between 1.8 to 6.6 metres in thickness. The coal is underlain by undulating shales and overlain by sandy shales and minor conglomerate.

The average production between 1908 and 1917, was about 182 tonnes per day of highly volatile bituminous rank coal.

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1909-240; 1910-193; 1911-236; 1912-264; 1913-352-354; 1914-450-452;
1915-395; 1916-464-467; 1917-396,398; 1927-370,429;
1928-392,463,470; 1929-404,464,467; 1930-318,397,398; 1931-178,

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218,219; 1932-228,264; 1933-277,328; 1934-G2,G26; 1935-G2,G22;
1936-G4,6,38; 1937-G5,G28; 1938-G4,G32; 1939-A115,A136;
1940-A101,A122; 1941-A96,A115; 1944-A118; 1956-196,212;
1957-120,133; 1958-134,145; 1959-252,264
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GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51, pp. 110-117; 69, p. 89
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DATE CODED: 1985/07/24
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REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW035**

NATIONAL MINERAL INVENTORY:

NAME(S): **HASLAM CREEK**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 01 59 N
LONGITUDE: 123 54 35 W
ELEVATION: Metres

NORTHING: 5431529
EASTING: 433505

LOCATION ACCURACY: Within 500M
COMMENTS: Drill hole (Coal Assessment Report 172).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
SHAPE: Irregular
MODIFIER: Folded Faulted
COMMENTS: Strata trend northwest and dips northeast.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Sandstone
Shale

HOSTROCK COMMENTS: The coal may be of either the Extension or the Pender formations.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

Five thin coal seams, and a number of coaly horizons less than 45 centimetres thick were intersected in a drill hole in this area. The coal is interbedded with sandstone and shale and occurs predominantly in the upper part of the Upper Cretaceous Nanaimo Group in either the Extension or Pender formations. In a number of samples taken from the drill core the associated rock partings/chips consist of sandstone and grey shale.

The structure in the south of the area consists of a north-west trending, northeast dipping series of strata with the facies from southwest to northeast grading from nearshore marine, fluvial deltaic to nearshore marine. The area is divided by a southwest trending fault, northwest of which there are a series of northwest trending anticlines and synclines.

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EMPR COAL ASS RPT 92, *172
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GSC MEM 51; 69
GSC OF 611
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DATE CODED: 1986/05/09
DATE REVISED: 1989/12/07

CODED BY: EVFK
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW036**

NATIONAL MINERAL INVENTORY:

NAME(S): **EXTENSION PROSPECT**, PROSPECT, PROSPECT MINE EXTENSION

STATUS: Past Producer

Underground

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 06 22 N

LONGITUDE: 123 57 28 W

ELEVATION: 137 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Location of abandoned Extension Prospect mine (Geological Survey of Canada Paper 70-53, Fig. 12).

UTM ZONE: 10 (NAD 83)

NORTHING: 5439693

EASTING: 430095

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Fossil Fuel Sedimentary

TYPE: A04 Bituminous coal

SHAPE: Irregular

MODIFIER: Folded Faulted

COMMENTS: Beds strike northwest-southeast and dip towards the northeast. A number of northwest-southeast trending faults are present.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular

PHYSIOGRAPHIC AREA: Georgia Depression

TERRANE: Overlap Assemblage

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Extension Prospect mine is situated at Extension on the south end of Harewood Ridge. The mine operated along a faulted section of the Wellington seam which occurs within the Early Campanian Northfield Member of the Upper Cretaceous Extension Formation, Nanaimo Group. Refer to the Bebens mine (092GSW026) for a description of the Wellington Seam and the Nanaimo Coalfield operations.

The slope was originally opened by the old Vancouver Coal Company in 1899 and driven for a distance of about 198 metres from the surface. A counter-slope was also driven a distance of 46 metres and connected to the main slope by a small shaft for ventilating purposes. In August of 1940, Canadian Collieries (Dunsmuir), Limited, dewatered the slope to a depth of 168 metres and turned off levels to the right and left to prove the seam. Two new levels were started at a point 46 metres from the portal and advanced in coal varying in thickness from 1.2 to 2.1 metres.

Highly volatile, bituminous rank coal was mined from 1941 to 1947 and approximately 17,433 tonnes of coal were produced before the mine was abandoned on July 18, 1947.

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1944-A86,A116; 1945-A137,A156; 1946-A216,A235; 1947-A236,A252
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GSC OF 611
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Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area,

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RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 412
REPORT: RGEN0100

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CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW037**

NATIONAL MINERAL INVENTORY:

NAME(S): **RESERVE** RESERVE COLLIERY, WESTERN FUEL,
CANADIAN WESTERN FUEL

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 07 39 N
LONGITUDE: 123 52 51 W
ELEVATION: 20 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5442003
EASTING: 435739

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned mine located east of South Wellington (Geological Survey of
Canada Paper 70-53, Fig. 12.)

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Carbonaceous Shale

HOSTROCK COMMENTS: The coal is part of the Douglas Seam within the Early Campanian
Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Reserve mine is located southwest of Harmac, just east of South Wellington. The first sod was turned and sinking of the Reserve shafts began in July, 1910. The Douglas coal seam was intersected at a depth of 323 metres in May 1913, when labour troubles caused a suspension of operations. In 1914, operations resumed and the mine operated continuously until 1930. In February of 1934, the mine was dewatered and efforts concentrated on retreating with the pillars and recovering all available coal. The Reserve mine produced a substantial amount of coal between 1936 and 1939 before being exhausted.

The coal is part of the Douglas seam in the Early Campanian Newcastle Member which is part of the Upper Cretaceous Pender Formation, Nanaimo Group. The Douglas seam in the Reserve mine was reported to range between 0.3 to 6.1 metres in thickness and was described as lenticular in formation, or full of pinches and swells with abundant slickensides. The roof of the mine is friable and consists of carbonaceous shales. The coal produced is of high volatile bituminous rank.

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1916-458-461; 1917-390-391; 1918-412-413; 1919-307; 1920-265,273;
1921-277,284; 1922-284,293; 1923-311,318; 1924-301,309;
1925-336,378; 1926-341,380; 1927-370,414; 1928-392,448;
1929-404,458; 1930-318,390; 1931-214; 1932-262; 1934-G21;
1935-G19; 1936-G4,G35; 1937-G5,G23; 1938-G4,G26; 1939-115,*132
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GSC MAP *42-1963; 1069A; 1386A
GSC MEM 51; 69

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/07

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW038**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOUTH WELLINGTON NO. 5**, CANADIAN COLLIERIES NO. 5, WELLINGTON EXTENSION NO. 5,
NO. 5, ALEXANDRA, ALEXANDRIA

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 05 44 N
LONGITUDE: 123 53 55 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438467
EASTING: 434400

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned shaft located at the northeast end of Beck Lake, west of
South Wellington (Geological Survey of Canada Paper 47-22,
occurrence #63). Adjacent to Alexandria (092GSW025).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Sandstone

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian
Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The South Wellington No. 5 Mine of Canadian Collieries (Dunsmuir) Ltd., opened in 1917 and was worked until 1935. The coal seam is part of the Douglas Seam in the Early Campanian Newcastle Member which occurs within the Upper Cretaceous Pender Formation, Nanaimo Group. It is high volatile bituminous in rank and varies in thickness from 0.1 to 9.1 metres. The coal seam strikes northwest and dips to the northeast. The coal is overlain by sandy shale and rock partings within the seam are common. The seam is underlain by undulating shales. The weak sandy shale floor showed more frequent irregularities than the roof which was described as either a sandy shale or a coarse grit. In 1928, the Main slope was abandoned. Steps were taken to reopen the old Alexandria Mine (092GSW025) which adjoins the Main slope of the No. 5 mine. The dewatering of the Alexandria mine that commenced in 1929 was successfully completed near the end of 1930 and coal was produced from the connected No. 5 and Alexandria mines from 1932 to 1935 at an average daily output of about 694 tonnes. Both mines were abandoned in late 1935.

BIBLIOGRAPHY

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1926-340,394; 1927-370,425; *1928-392,459,460;
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GSC MAP 42-1963; 1069A; 1386A
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GSC OF 611

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW039**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOUTH WELLINGTON NO. 10**, CANADIAN COLLIERIES NO. 10, NO. 10

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 05 24 N
LONGITUDE: 123 53 39 W
ELEVATION: 30 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5437846
EASTING: 434717

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned shaft located at the south end of Beck Lake, west of South Wellington (Geological Survey of Canada Paper 47-22, occurrence #64).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous

GROUP

Nanaimo

FORMATION

Pender

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Coal
Shale
Sandstone

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The South Wellington No. 10 mine of Canadian Collieries (Dunsmuir) Ltd., was in operation for about 13 years and produced about 2.5 million tonnes of highly volatile, bituminous rank coal. This mine is the largest coal producer in the South Wellington District, opening in 1938 and closing permanently in 1952. The extraction of the pillars was very high, due to the efficient organization of the work.

The coal that was worked is part of the Douglas Seam in the Early Campanian Newcastle Member which occurs within the Upper Cretaceous Pender Formation, Nanaimo Group. The seam strikes northwest and dips shallowly northeast, varying in thickness from 0.1 to 9.1 metres. Variations in thickness are commonly caused by undulations in the floor which is predominantly shale. The coal is overlain by sandy shale and rock partings within the seam are common.

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RUN TIME: 09:30:14

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW040**

NATIONAL MINERAL INVENTORY:

NAME(S): **WAKESIAH**, WAKESIAH COLLIERY

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 09 36 N
LONGITUDE: 123 57 44 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5445688
EASTING: 429847

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned mine (Geological Survey of Canada Paper 70-53, Fig. 12).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale
Carbonaceous Shale

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Wakesiah mine was owned and operated by the Canadian Western Fuel Company between 1918 and 1930. Two shafts were sunk along the Wellington seam which varied from 0.9 to 4.3 metres (locally up to 6.0 metres) in thickness. Minor dislocations were common throughout the mine. The seam that was mined had a moderate but variable dip, except on the western side of the mine where the dip was up to 60 degrees.

The coal seam is part of the Early Campanian Northfield Member which occurs in the Upper Cretaceous Extension Formation, Nanaimo Group. The coal is high volatile bituminous in rank. The strata consists mainly of shales, carbonaceous shales and sandy shales. Refer to the Bebens mine (092GSW026) for a description of the Wellington Seam and Nanaimo Coalfield operations.

The Wakesiah Colliery produced 767,025 tonnes of excellent quality coal between 1919 and 1930. The mine was permanently abandoned in January, 1930.

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/06

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW040**

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DATE CODED: 1985/07/24
DATE REVISED: 1986/05/14

CODED BY: GSB
REVISED BY: EVFK

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

in 1951 expanded this area into a second new mine, the Lewis mine. This extension of the old No. 8 mine, or the new Lewis mine, commenced production in 1951 and continued to 1966. The Wellington seam averaged about 1.8 metres in thickness, including two rock partings, and dipped about 08 degrees south. The coal outcrop was bounded to the west by a thrust fault that also formed the western boundary of the old No. 8 mine. The mine was abandoned in 1966.

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1962-257,267; 1963-238,255; 1964-317; 1965-390,400;
1966-375,385
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/19

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW043**

NATIONAL MINERAL INVENTORY:

NAME(S): **WHITE RAPIDS**, RIVERSIDE, BERKLEY CREEK

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 04 05 N
LONGITUDE: 123 57 46 W
ELEVATION: 137 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5435468
EASTING: 429676

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned mine on the north side of the Nanaimo River (Geological Survey of Canada, Paper 70-53, Fig. 12).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The White Rapids mine was developed in part of the Wellington seam which occurs in the Early Campanian Northfield Member of the Upper Cretaceous Extension Formation, Nanaimo Group. The Wellington seam that was worked, consisted of about 61 to 76 centimetres of high volatile bituminous rank coal. This thin seam was characterized by an extremely soft shale roof. Refer to the Bebens mine (092GSW026) for a description of the Wellington Seam and Nanaimo Coalfield operations.

The mine operated between 1943 and 1950, and was closed in July, 1950 due to the thinness of the seam and other factors. During the seven years of operation the White Rapids mine produced 256,564 tonnes of highly volatile, bituminous rank coal.

The area was operated as the Riverside mine in 1953 by J. Biggs, and the Berkley Creek mine from 1954 by R.H. Chambers and A. Vanger.

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1946-216,218,234; 1947-236,238,251; 1948-202,204,219;
1949-276,278,293; 1950-242,244,258; 1953-224,243;
1954-212,230; 1955-130,147
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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW044**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROUND ISLAND COAL**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 06 59 N
LONGITUDE: 123 47 42 W
ELEVATION: 1 Metres

NORTHING: 5440699
EASTING: 441988

LOCATION ACCURACY: Within 500M

COMMENTS: Coal seam located on the southeast part of Round Island (Geological Survey of Canada Paper 47-22, occurrence #67).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary

TYPE: A04 Bituminous coal

SHAPE: Irregular

MODIFIER: Folded

DIMENSION: 0002 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: The coal seam, 0.6 to 2.0 metres thick, is exposed in a northwest trending, northwest plunging anticline.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Upper Cretaceous

Nanaimo

Pender

LITHOLOGY: Coal
Shale
Sandstone

HOSTROCK COMMENTS: The coal may be part of the Douglas seam of the Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Round Island coal prospect was explored by Consumers Coal Co., Ltd. in the early 1900's. The coal seam is part of the Upper Cretaceous Nanaimo Group and is exposed in a northwest trending, northwest plunging relatively broad anticline.

The coal seam which outcrops in the southern part of Round Island, varies from 0.6 to 2.0 metres in thickness. The coal is underlain by a sandy shale floor and is overlain by sandstone. The seam may represent the Douglas Seam of the Pender Formation, however, insufficient information is available to verify this.

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/02

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

Islands and for some distance seaward.

The strata generally strike northwest to northeast and dip shallowly predominantly to the northeast and southeast. Minor faulting occurs in some parts of the seam.

The Douglas Seam (20 metres above the Newcastle Seam) outcrops at the Brechin mine but has not been worked.

At the Protection mine the Douglas Seam is approximately 1.5 metres thick under a hard faulted roof rock. Below this seam is the 1.2 metre thick Newcastle Seam. Both seams were mined out under the Northumberland Channel at this mine.

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DATE CODED: 1985/07/24
DATE REVISED: 1986/05/14

CODED BY: GSB
REVISED BY: EVFK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW046**

NATIONAL MINERAL INVENTORY:

NAME(S): **GRANBY**, GRANBY COLLIERY, GRANBY NO. 1,
GRANBY NO. 2, CASSIDY, NO. 3,
NO. 4, NO. 5, NO. 7,
NO. 1 COLLIERY

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 03 47 N
LONGITUDE: 123 53 20 W
ELEVATION: 55 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5434846
EASTING: 435067

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned mine southwest of Cassidy (Geological Survey of Canada Paper 70-53, Fig. 12). Includes Granby No. 2 (092GSW050) production.

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular

MODIFIER: Folded Faulted
DIMENSION: 0007 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: The syncline is cut off to the south by an east-northeast to west-southwest trending fault. The seam is 0.2 to over 7 metres thick.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Grit
Conglomerate
Sandstone

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

The coal mined in the Granby mines is part of the Douglas Seam in the Early Campanian Newcastle Member of the Upper Cretaceous Pender Formation, Nanaimo Group. The coal is high volatile bituminous rank and varies from 0.2 to over 7.0 metres in thickness. The coal is underlain and overlain by fine grit and conglomerate to sandy shale. It contains silty sections and pinches and swells.

The area southwest of Cassidy contains two northwest trending, southeast plunging folds, a southern syncline and a northern anticline. The Granby mines are located on the upper portion of the northern limb of the syncline. The syncline is faulted to the south by an east-northeast trending fault.

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1928-392,465-466; 1929-404,465; 1930-318,397; 1931-178,218;
1932-228,267; 1937-G5,G29; 1938-G4,G32; 1939-A115,A136;
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Times Colonist, Islander, page 8-9, June 13, 1999

DATE CODED: 1986/05/09
DATE REVISED: 1989/12/17

CODED BY: EVFK
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW047**

NATIONAL MINERAL INVENTORY:

NAME(S): **GABRIOLA ISLAND DIATOMITE** DUTCHMAN'S SWAMP

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 11 24 N
LONGITUDE: 123 49 55 W
ELEVATION: 15 Metres

NORTHING: 5448911
EASTING: 439382

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located in Dutchman's Swamp, about 2.4 kilometres from the north end of Gabriola Island.

COMMODITIES: Diatomite

MINERALS

SIGNIFICANT: Diatomite
COMMENTS: Fresh water diatomaceous mud.
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Residual Industrial Min.
TYPE: F06 Lacustrine diatomite
DIMENSION: 0001 Metres
COMMENTS: Deposit is in elliptically shaped basin and averages 0.9 to 1.5 metres in thickness.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Diatomite

HOSTROCK COMMENTS: Diatomaceous earth.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
COMMENTS: Quaternary diatomaceous earth.

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

Fresh water, diatomaceous earth is reported to occur in Dutchman's Swamp, about 2.4 kilometres from the north end of Gabriola Island. In 1939, a small plant owned by the West Coast Silica Products Company, was in operation processing the diatomaceous earth. The mill processed about 1.5 to 2.0 tonnes of calcined material which was stockpiled at the site.

Excavations indicated that the diatomite was a high grade deposit, averaging from 0.9 to 1.5 metres in thickness, within a deep, elliptically shaped basin.

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/20

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW048**

NATIONAL MINERAL INVENTORY:

NAME(S): **WELLINGTON**, NORTHFIELD, WELLINGTON SHAFT 1-6,
UPPER WELLINGTON, LOUDON NO. 6, CARRUTHERS,
WAKELEM NO. 3, STRONACH NO. 2, BIGGS,
CANADIAN COLLIERIES, NO. 9, DUNSMUIR,
DEPARTURE BAY, ADIT, VICTORY,
PACIFIC

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 11 35 N
LONGITUDE: 123 59 22 W
ELEVATION: 50 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of Northfield mine (Geological Survey of Canada Paper 47-22). This occurrence includes production from the North Wellington mines (092F 312).

Underground
MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)
NORTHING: 5449388
EASTING: 427910

COMMODITIES: Coal Fireclay

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary Industrial Min.
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded Faulted

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Extension	

LITHOLOGY: Coal
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Wellington Seam in the Early Campanian Northfield Member, Extension Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Georgia Depression
RELATIONSHIP:
GRADE: HVol Bituminous

CAPSULE GEOLOGY

Coal was first reported in the Nanaimo area in 1849. The Nanaimo Coalfield was developed and more or less depleted between 1852 and 1953, during which time a total of 49 megatonnes of coal was produced.

Production in the Nanaimo Coalfield was from three major seams: the Wellington, the Newcastle and the Douglas. The Wellington seam was worked in the Wellington field, the East Wellington field (includes the Chandler/East Wellington 092GSW030 and Wakesiah 092GSW040 operations), the Harewood mine (092GSW033) and further to the south, the Extension field (Extension No.1 thru 3 092GSW028, Extension No.4 092GSW053, Extension No. 8 092GSW042, Beban's 092GSW026, Old No.1 Slope/Vancouver 092GSW027, Extension Prospect 092GSW036, White Rapids 092GSW043). The mines are separated by faulted strata or areas where the seam thins to unprofitable thicknesses. The total workable area was 19.3 kilometres long and averaged 1.6 kilometres in width.

The main Wellington seam (No. 1) occurs in the Northfield Member at the base of the Lower Campanian Extension Formation of the Upper Cretaceous Nanaimo Group. The coal is commonly underlain by sandstone and overlain by conglomerate of the Millstream Member. Shale partings are common in the main seam and thickness is extremely variable, ranging from 1.2 to 2.13 metres, due to minor folds, faults or bands usually in the roof (the base of the overlying Millstream Member is often a scour surface). The average thickness is 1.9 metres inclusive of minor dirt bands. The floor is marked by a

CAPSULE GEOLOGY

distinctive rooty bed. The main seam, high volatile bituminous in rank, was the main producer of the Wellington field coal.

Minor workings were established on three upper seams designated the Wellington No.2 or Little Wellington, Wellington No.3 and Wellington No.4. These rarely exceed 0.60 metre in thickness and lie above the Wellington at intervals of 10.67 metres, 18.29 metres and 22.9 metres, floor to floor.

The strata strike northwest and dip towards the northeast (approximately 10 degrees). To the south and west, the beds are cut off by a northwest-southeast trending normal(?) fault and a number of broad northwest trending folds occur in the coal bearing formation to the north and east.

The area encompasses the Wellington Colliery workings, the Wellington No. 9 mine (092F 312) and the Northfield mine.

The Wellington field, northwest of Nanaimo, was initially discovered by Robert Dunsmuir in 1869 and mining operations began in 1871. Production for 1871, 1872 and 1873 was 134,682 tonnes.

The Northfield Mine, immediately east of the Wellington Colliery was worked in the Wellington seam from 1889 to 1895 and later these workings were used by the Dunsmuir interests to enter an area of the upper Wellington seam. The Wellington mines were exhausted near turn of the century and activity moved southwards to the East Wellington and Extension fields.

The last production of the Nanaimo Coal fields was from the Loudon No. 6 mine, which was worked until July 1968. The old workings were also mined as the Carruthers and Wakelem No. 3, the Stronach No. 2, and others.

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1884-429,435; 1885-505,510; 1886-240,243,249; 1887-281,285,292;
1888-329,332,341; 1889-294,297,305; 1890-381,385,393; 1891-578,
583,592; 1892-548,553-535,562; 1893-1093,1098,1107; 1894-759,
763-765,771; 1895-713,717,719,726; 1896-584,587,589,594,596;
1897-620,624,631; 1898-1174-1177; 1899-833-834; 1900-961-962;
1904-278; 1905-228; 1906-225; 1907-178-179,186-187;
1908-205-206; 1909-233-234,238; 1910-187-188; 1911-228-229;
1912-256-257; 1913-346; 1914-444; 1915-390; 1920-294;
1921-277,293; 1922-284,303; 1923-311,328; 1924-301,317;
1925-336,396; 1926-341,400-401; 1927-370,427,434;
1928-392,462-463; 1929-404,464,466; 1930-318,398; 1931-178,218;
1932-228,263,264; 1933-277,328; 1934-G2,G25; 1935-G2,G22;
1936-G4,G37,G38; 1937-G5,G26,G29; 1938-G4,G29-G31,G32; 1939-A115,
A133-A135; 1940-A101,A120,A122; 1941-A96,A114,A116; 1942-A94,A112,
A113,A114; 1943-A89,A108,A110,A111; 1944-A86,A115,A117-A118;
1945-A137,A158; 1946-A216,A236; 1947-A236,A253; 1948-A202,A220;
1949-A276,A296; 1950-A242,A260; 1951-A247,A274; 1952-A284,A305;
1953-A224,A243; 1954-A212,A231; 1955-130,148; 1956-196,212;
1957-120,133; 1958-134,145; 1959-252,264; 1960-217,228; 1961-252,
264-265; 1962-257,268; 1963-238,256; 1964-307,317; 1965-390,401;
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GSC P *47-22; 69-25; *70-53; 89-4
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DATE CODED: 1985/07/24
DATE REVISED: 1990/06/07

CODED BY: GSB
REVISED BY: DEJ

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW049**

NATIONAL MINERAL INVENTORY:

NAME(S): **JACK POINT QUARRY**, PORTAGE QUARRY

STATUS: Past Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 09 19 N

NORTHING: 5445101

LONGITUDE: 123 53 35 W

EASTING: 434883

ELEVATION: 5 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: East of Nanaimo Harbour on Jack Point.

COMMODITIES: Sandstone Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Quartz Orthoclase Plagioclase Biotite

COMMENTS: Unidentified isotropic mineral.

ASSOCIATED: Chlorite

COMMENTS: Cloudy, green chlorite cement.

ALTERATION: Sericite

COMMENTS: Orthoclase is partially altered to sericite.

ALTERATION TYPE: Sericitic

MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Sedimentary Industrial Min.

TYPE: R06 Dimension stone - sandstone

SHAPE: Regular

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous

GROUP

Nanaimo

FORMATION

Deadman River

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sandstone

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The sandstone quarry, located east of Nanaimo Harbour on Jack Point, produced building stone used to construct the Nanaimo Post Office (CANMET Report 452). No production figures are available.

The area is underlain by the Upper Cretaceous Nanaimo Group, Deadman River Formation.

The sandstone ranges from medium to dark blue-grey in colour and is medium-grained (0.6 to 2.0 millimetres). Cherty pebbles (up to 2 centimetres) and large sand concretions (up to 1.4 metres in diameter) disrupt an otherwise uniform texture.

In thin section, angular to subangular quartz grains between 0.25 and 1.5 millimetres in size comprise 50 per cent of the rock. A cloudy green chlorite cement is visible between grains of orthoclase which are often partially altered to sericite. Other constituent minerals include plagioclase, biotite and an unidentified isotropic mineral.

The original sandstone quarry described by Parks (1917) was not well exposed but recent excavations have removed large volumes of sandstone and exposed a 520 metre long face between 5 and 7 metres high. Distinct sets of joints are exposed, with the main set striking northeast and dipping steeply northwest. Irregular west-northwest joints dip steeply to the northeast. Bedding planes strike parallel to the face and dip moderately east. Greater than 60 per cent of the joints and fractures are spaced over 3.0 metres apart.

Reserves of sandstone, similar in appearance to the stone described extend 40 to 50 metres west of the worked face.

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EMPR INF CIRC 1988-6

EMPR OF 1991-20

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 435
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/12

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW050**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRIGHT**, GRANBY NO. 2, CASSIDY,
CANADIAN COLLIERIES

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 49 03 35 N
LONGITUDE: 123 53 13 W
ELEVATION: 53 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5434474
EASTING: 435205

LOCATION ACCURACY: Within 500M

COMMENTS: Abandoned mine located southwest of Cassidy. Granby No. 2
production included with Granby No. 1 (092GSW046).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Fossil Fuel Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Irregular
MODIFIER: Folded
DIMENSION: 0015 Metres
COMMENTS: Variable seam is up to 15 metres thick.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous	Nanaimo	Pender	

LITHOLOGY: Coal
Shale
Sandstone
Conglomerate

HOSTROCK COMMENTS: The coal is part of the Douglas Seam in the Early Campanian Newcastle Member, Pender Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular	PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Overlap Assemblage	
METAMORPHIC TYPE: Regional	RELATIONSHIP: Post-mineralization
	GRADE: HVol Bituminous

CAPSULE GEOLOGY

The Bright mine, located in Sections 1 and 2, Range 7, of the Cranberry District, is approximately 14.5 kilometres south of Nanaimo. Operations began in April 1950, with the intention of working the Douglas Seam immediately south of the old Granby No. 2 mine (092GSW051) workings. The Granby No.2 mine slope was dewatered and reopened, and formed the main slope of the Bright mine. The main slope was advanced 253 metres southeast of the old workings and a new No. 3 level was developed and advanced a total distance of 420 metres due east. Headings and counter levels driven from the No. 3 left level subdivided the area into a series of substantial pillars. Before extraction commenced the reserves were estimated at about 817,000 tonnes of coal.

The Douglas Seam, high volatile bituminous in rank, in the Bright mine is part of the Early Campanian Newcastle Member of the Upper Cretaceous Pender Formation, Nanaimo Group. The seam is variable and ranges up to 15 metres in thickness. The overlying strata consist of sandy shales, sandstones and conglomerates. The general structure of the area is synclinal, the old Granby workings are on the upper portion of the northern limb and the Bright mine workings are at the base. The dip of the seam in the Bright mine workings is generally less than 12 degrees.

Operations in 1953 were confined to the extraction of pillars. The Bright mine closed after being in production for only three years. The total production from the mine was 179,241 tonnes of excellent quality coal.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 437
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1989/12/27

CODED BY: GSB
REVISED BY: LLD

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW051**

NATIONAL MINERAL INVENTORY:

NAME(S): **TRAIL BAY QUARRY**, SECHELT GRANITE QUARRIES, LOT 4295A

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092G05W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 28 13 N

NORTHING: 5480030

LONGITUDE: 123 46 53 W

EASTING: 443388

ELEVATION: 35 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry on Lot 4295A, 130 metres northeast of Nor-West Bay Road, 1.5 kilometres west-southwest of Sechelt (CANMET Report 452, page 91).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: Commodity is granodiorite.

ASSOCIATED: Feldspar Quartz Biotite Hornblende

MINERALIZATION AGE: Jurassic

ISOTOPIC AGE: 150 Ma DATING METHOD: Uranium/Lead

MATERIAL DATED:

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Syngenetic Industrial Min.

TYPE: R03 Dimension stone - granite

SHAPE: Regular

MODIFIER: Fractured

DIMENSION: 75 x 3 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Isotopic age date from Geological Survey of Canada Paper 90-1F, p. 99. Maximum size of working face.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic			Coast Plutonic Complex

ISOTOPIC AGE: 150

DATING METHOD: Uranium/Lead

LITHOLOGY: Medium Grained Granodiorite

HOSTROCK COMMENTS: The Coast Plutonic Complex ranges from Jurassic to Tertiary in age, but is Jurassic in age on the Sechelt Peninsula.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

CAPSULE GEOLOGY

The Trail Bay Quarry is situated 1.5 kilometres west-southwest of Sechelt near the shore of Trail Bay. A similar granite quarry, the Swanson (092GSW008), lies 1.4 kilometres to the northeast. The quarry was developed in Jurassic granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

The quarry, developed parallel to north-trending joints, has a maximum length of 75 metres along its north-south working face and 30 metres along its east-west face. A smaller face, approximately 25 metres north of the larger opening, is 25 metres long. The maximum height of developed faces is 3 metres.

The granodiorite is medium to coarse-grained with a fresh appearance and a light grey tone. Visible minerals include feldspar, quartz, biotite and hornblende. Occasional dark knots of mafic minerals and infrequent iron stains are visible (less than 1 per cent). Three sets of joints are recognized at the site; a vertical set strikes east to southeast; a second set strikes northeast and dips southeast; and a third set strikes south-southeast and dips moderately to the west.

Potential reserves of dimension stone, extend 45 metres west of the quarry. A housing development near the quarry will restrict the quarry's development.

Sechelt Granite Quarries Ltd. operated the quarry in the early 1900's, producing paving stone. No production figures are available.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 439
REPORT: RGEN0100

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DATE CODED: 1991/03/21
DATE REVISED: 1991/03/21

CODED BY: PSF
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW052**

NATIONAL MINERAL INVENTORY:

NAME(S): **NANAIMO**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 05 29 N
LONGITUDE: 123 55 05 W
ELEVATION: 60 Metres

NORTHING: 5438021
EASTING: 432974

LOCATION ACCURACY: Within 500M

COMMENTS: The centre of an area of past producing coal mines, 8.5 kilometres south of Nanaimo.

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Upper Cretaceous

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Sedimentary Fossil Fuel
TYPE: A04 Bituminous coal

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous
Upper Cretaceous

GROUP

Nanaimo
Nanaimo

FORMATION

Extension
Pender

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Coal
Sandstone
Shale
Conglomerate

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP:

GRADE: HVol Bituminous

CAPSULE GEOLOGY

Coal was first reported in the Nanaimo area in 1849. The Nanaimo coalfield was developed and more or less depleted between 1852 and 1953 respectively, during which time a total of 49 million tonnes of coal was produced.

Production in the coalfield was from three major seams: the Wellington, Newcastle and Douglas. The Wellington seam occurs in the Northfield Member at the base of the Early Campanian Extension Formation of the Nanaimo Group. The Douglas and Newcastle seams occur within the Newcastle Member of the Early Campanian Pender Formation of the Nanaimo Group. The Newcastle seam is 244 to 305 metres above the Wellington seam and on average 18 metres below the Douglas seam. The coal seams are interbedded with sandstone, shale and conglomerate.

Kitac Enterprises of the Nanaimo project proposes to obtain a clean coal product from the processing of various coal dumps in the area (G. Ketchley, personal communication, 1993).

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GSC P 47-22; 69-25; 70-53; 89-4
Ditson, G.M. (1978): Metallogeny of the Vancouver-Hope Area, British Columbia, M.Sc. Thesis, University of British Columbia

DATE CODED: 1993/05/03
DATE REVISED: / /

CODED BY: GO
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW053**

NATIONAL MINERAL INVENTORY:

NAME(S): **GHOST TOWN PIT/QUARRY**, GHOST TOWN

STATUS: Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 03 59 N

NORTHING: 5435213

LONGITUDE: 123 53 05 W

EASTING: 435376

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry is located 800 metres west of Highway 1 at Cassidy, via Spruston Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Ghost Town Quarry is located 800 metres west of Highway 1 at Cassidy, via Spruston Road.

Subsurface exploration in 1988 suggest additional quantity of sand borrow is available below 41 metres, in the north part of the lot. Seasonal fluctuations in ground water levels may necessitate some drainage measures if material is extracted to a 41-metre depth.

Technical data: crush % <.075=1; .075-4.75=41; 4.75-25=56; 25-75=2. The product is 25 millimetres Well Graded Base. Pit run: 1 per cent fines, per cent sand, 36 per cent fine gravel and 28 per cent coarse gravel.

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Geotech File 10.4356.54350MP
MTH District Pit 6274D
MTH Provincial Pit 70

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW054**

NATIONAL MINERAL INVENTORY:

NAME(S): **WILLIAMS**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 04 21 N
LONGITUDE: 123 52 50 W
ELEVATION: 60 Metres

NORTHING: 5435889
EASTING: 435688

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located on Highway 1, south of Cassidy, at the intersection of Old Island Highway, west of Nanaimo.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Williams Pit is located on Highway 1, south of Cassidy, at the intersection of Old Island Highway, west of Nanaimo. Constraints to development are: backslope to Highway 1 Nanaimo River hydro line, and a limited pit floor area. Technical data: crush % <.075=6; .075-4.75=40; 4.75-25=52; 25-75=2. The product is 25 millimetres Well Graded Base. Overburden thickness is 0.6 metre of GP and GM1. Pit run: 5 per cent fines, 49 per cent sand, 29 per cent fine gravel and 17 per cent coarse gravel.

BIBLIOGRAPHY

ARMS 1186
Air Photo BR82072-256,57
Geotech File 10.4357.54360MP
MTH District Pit 6274C
MTH Provincial Pit 69

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW055**

NATIONAL MINERAL INVENTORY:

NAME(S): **NANAIMO RIVER ROAD**, NANAIMO RIVER

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 04 47 N

NORTHING: 5436724

LONGITUDE: 123 55 05 W

EASTING: 432959

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry is located 0.75 kilometre west of Island Highway, via Nanaimo River Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Nanaimo River Road Quarry is located 0.75 kilometre west of Island Highway, via Nanaimo River Road.

The quarry was being used as the City Dump.

Technical data: crush % <.075=1; .075-4.75=33; 4.75-25=65; 25-75=1. The product is 25 millimetres Well Graded Base. Overburden thickness is 0.1 metre of OB. Pit run: 6 per cent fines, 33 per cent sand, 20 per cent fine gravel and 41 per cent coarse gravel.

BIBLIOGRAPHY

ARMS 1188
Air Photo BC80058-023,24
Geotech File 10.4331.54365MR
MTH District Pit 6274E
MTH Provincial Pit 2318

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW056**

NATIONAL MINERAL INVENTORY:

NAME(S): **FRY ROAD??**, FRY ROAD

STATUS: Prospect Open Pit

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 04 34 N

LONGITUDE: 123 52 55 W

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is bounded by Nanaimo River, Island Highway, and Fry Road.

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5436291

EASTING: 435591

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Fry Road Pit is bounded by the Nanaimo River, Island Highway, and Fry Road.

BIBLIOGRAPHY

ARMS 1189
Air Photo BC80058-022
Geotech File 10.4357.54361??
MTH District Pit 6174F

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW057**

NATIONAL MINERAL INVENTORY:

NAME(S): **COAL MINE PRIVATE** COAL MINE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 05 49 N
LONGITUDE: 123 52 16 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438598
EASTING: 436409

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

No information exists for the Coal Mine Private Pit.

BIBLIOGRAPHY

ARMS 1184
Air Photo BC80058023
Geotech File 10.4365.54384PP
MTH District Pit 6174B

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW058**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCGARRIGLE PRIVATE** MCGARRIGLE

STATUS: Past Producer Open Pit

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 10 47 N

LONGITUDE: 123 58 47 W

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5447897

EASTING: 428599

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

No information is available for the McGarrigle Pit. Documented as depleted. Production unknown.

BIBLIOGRAPHY

ARMS 1178
Air Photo BC80058-072
Geotech File 10.4287.54477PD
MTH District Pit 6162A

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW059**

NATIONAL MINERAL INVENTORY:

NAME(S): **SCOTCH TOWN ROAD**

STATUS: Showing Open Pit

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 05 45 N

LONGITUDE: 123 53 50 W

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Located south of Wellington, on Scotch Road.

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5438497

EASTING: 434501

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Scotch Town Road Pit is located south of Wellington on Scotch Road. It is a private pit.

BIBLIOGRAPHY

ARMS 1190
Air Photo BC80050-023
Geotech File 10.4346.54383ER
MTH District Pit 6174G

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW060**

NATIONAL MINERAL INVENTORY:

NAME(S): **SPRUSTON ROAD PIT**, SPRUSTON ROAD

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 03 41 N

NORTHING: 5434691

LONGITUDE: 123 55 26 W

EASTING: 432508

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 4.8 kilometres west of Highway 1, on Spruston Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Spruston Road Pit is located 4.8 kilometres west of Highway 1, on Spruston Road.

Screening of crushing to remove oversize abrasive will be necessary for production of winter abrasive.

Technical data: crush % <.075=1; .075-4.75=56; 4.75-25=42; 25-75=1. The product is 12.5 millimetres Winter Abrasive (Sand). Overburden thickness is 0.2 metre of topsoil. Pit run: 2 per cent fines, 56 per cent sand, 26 per cent fine gravel and 16 per cent coarse gravel. MTH Petrographics: physical and chemical quality estimates (engineering); Good 79.6%, Fair 18.4%, Poor 2%.

BIBLIOGRAPHY

ARMS 1191
Air Photo BC84029-087,88
Geotech File 10.4326.54345MR
MTH District Pit 6274H
MTH Provincial Pit 72

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW061**

NATIONAL MINERAL INVENTORY:

NAME(S): **TIMBERLANDS PIT**, TIMBERLANDS

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 01 59 N

NORTHING: 5431522

LONGITUDE: 123 54 05 W

EASTING: 434114

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 3.5 kilometres west of Highway 1, via Timberlands Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Timberlands Pit is located 3.5 kilometres west of Highway 1, via Timberlands Road.

Degradation values are below minimum of 35. But historical use for 19 millimetres crush and 75 millimetres crush base suggest materials performance is satisfactory. The deposit consists of two terraces. The water table is encountered 4-5 metres down.

Technical data: crush % <.075=2; .075-4.75=33; 4.75-25=62; 25-75=3. The product is 25 millimetres Well Graded Base. Overburden thickness is 0.2 metre of GP. Landform is a glaciofluvial outwash. MTH Petrographics: physical and chemical quality estimates (engineering); Good 70.2%, Fair 28.3%, Poor 1.5%. Pit run: 2 per cent fines, 31 per cent sand, 32 per cent fine gravel and 35 per cent coarse gravel.

BIBLIOGRAPHY

ARMS 1193
Air Photo BC84029-085,86
Geotech File 10.4340.54316MP
MTH District Pit 6275A
MTH Provincial Pit 73

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW062**

NATIONAL MINERAL INVENTORY:

NAME(S): **NESBITT PITT**, NESBITT

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 02 29 N
LONGITUDE: 123 52 12 W

NORTHING: 5432421
EASTING: 436419

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: kilometre north of Old Yale Road.

Pit is located 3 kilometres north of Ivy Green Park on Highway 1.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Nesbitt Pit is located 3 kilometres north of Ivy Green Park on Highway 1.

The product is 25 millimetres Well Graded Base. Landform is an outwash fan.

Technical data: Pit run: 8 per cent fines, 33 per cent sand, 54 per cent fine gravel and 5 per cent coarse gravel. MTH Petrographics: physical and chemical quality estimates (engineering); Good 98.6%, Fair 1.4%.

BIBLIOGRAPHY

ARMS 1194
Air Photo BC82010-128,29
Geotech File 10.4365.54322MP
MTH District Pit 6275B
MTH Provincial Pit 74

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 451
REPORT: RGEN0100

MINFILE NUMBER: **092GSW063**

NATIONAL MINERAL INVENTORY:

NAME(S): **THATCHER ROAD**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 05 20 N
LONGITUDE: 123 51 41 W
ELEVATION: 60 Metres
LOCATION ACCURACY: Within 500M
COMMENTS:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5437695

EASTING: 437108

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Thatcher Road Pit is private.

BIBLIOGRAPHY

ARMS 1199
Air Photo BC80058.021
Geotech File 10.4372.54375PP
MTH District Pit 6184A

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW063**

MINFILE NUMBER: **092GSW064**

NATIONAL MINERAL INVENTORY:

NAME(S): **BARRETT ROAD PIT/QUARRY**, BARRETT ROAD

STATUS: Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 10 35 N

NORTHING: 5447377

LONGITUDE: 123 48 20 W

EASTING: 441288

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry is located east of North Road, via Barrett Road, Gabriola Island.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sandstone
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Barrett Road Pit/Quarry is located east of North Road, via Barrett Road, Gabriola Island.

The product is bridge end fill. A veneer of overburden is underlain by sandstone. Limited gravel and sand extraction potential may exist.

BIBLIOGRAPHY

ARMS 1198
Air Photo BC85007-060,61
Geotech File 10.4416.54472MR
MTH District Pit 6282A
MTH Provincial Pit 75

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW065**

NATIONAL MINERAL INVENTORY:

NAME(S): **DIAMOND OVERHEAD (READ)**, DIAMOND OVERHEAD

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 00 19 N

NORTHING: 5428375

LONGITUDE: 123 49 50 W

EASTING: 439258

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 500 metres off Highway 19, east of the Diamond Overhead Crossing.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

PHYSIOGRAPHIC AREA: Georgia Depression

TERRANE: Overlap Assemblage

CAPSULE GEOLOGY

The Diamond Overhead Pit is located 500 metres off Highway 19, east of Diamond Overhead Crossing.
The product is 25 millimetres Well Graded Base. Technical data: MTH Petrographics; physical and chemical quality estimates (engineering); Good 99.6%, Fair 0.4%.

BIBLIOGRAPHY

ARMS 1222
Air Photo BC84029-082,83
Geotech File 10.4393.54281MP
MTH District Pit 6285A
MTH Provincial Pit 79

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW066**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHRISTIE PIT**, CHRISTIE NO.1, CHRISTIE NO.2

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 00 44 N

NORTHING: 5429162

LONGITUDE: 123 50 57 W

EASTING: 437905

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 1.6 kilometres north of Ladysmith at the end of Christie Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Christie Pit is located 1.6 kilometres north of Ladysmith, at the end of Christie Road.

The product is 25 millimetres Well Graded Base. Overburden is 0.1 metre of GP. Landform is a fluvial fan.

BIBLIOGRAPHY

ARMS 1223
Air Photo BC84029-134,35
Geotech File 10.4379.54289MR
MTH District Pits 6285B & C combined
MTH Provincial Pit 80

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 455
REPORT: RGEN0100

MINFILE NUMBER: **092GSW067**

NATIONAL MINERAL INVENTORY:

NAME(S): **GROUHEL ROAD - LADYSMITH**, GROUHEL ROAD

STATUS: Showing Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 00 03 N

NORTHING: 5427883

LONGITUDE: 123 49 58 W

EASTING: 439090

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Grouhel Road Pit is Crown Land.

BIBLIOGRAPHY

ARMS 1225
Air Photo BC82007-087
Geotech File 10.4392.54277PP
MTH District Pit 6185C

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW067**

MINFILE NUMBER: **092GSW068**

NATIONAL MINERAL INVENTORY:

NAME(S): **DEGNEN PIT - GABRIOLA**, DEGNEN

STATUS: Prospect Open Pit

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 08 09 N

LONGITUDE: 123 45 01 W

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located at the intersection of Degnen Road and South Road,
Gabriola Island.

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5442827

EASTING: 445272

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Till
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Degnen Pit is located at the intersection of Degnen Road and South Road, Gabriola Island.

Technical data: crush % <.075=26; .075-4.75=51; 4.75-25=23. The product is 25 millimetres Well Graded Base. Overburden thickness is 2.1 metres of GM1 and GP. Landform is till. MTH Petrographics: physical and chemical quality estimates (engineering); Excellent 55%, Good 16%, Fair 24%, Poor 5%. Pit run: 28 per cent fines, 53 per cent sand, 16 per cent fine gravel and 3 per cent coarse gravel.

BIBLIOGRAPHY

ARMS 1235
Air Photo BC85007-118,19
Geotech File 10.4454.54427MP
MTH District Pit 6293A
MTH Provincial Pit 83

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 457
REPORT: RGEN0100

MINFILE NUMBER: **092GSW069**

NATIONAL MINERAL INVENTORY:

NAME(S): **SPRUSTON AGGREGATES LTD.** SPRUSTON AGGREGATES

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 49 04 13 N

NORTHING: 5435682

LONGITUDE: 123 55 37 W

EASTING: 432297

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Sprustson Aggregates Pit is private.

BIBLIOGRAPHY

ARMS 1339
Geotech File 10.4324.54355PP
MTH District Pit 1P011

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW069**

MINFILE NUMBER: **092GSW070**

NATIONAL MINERAL INVENTORY:

NAME(S): **HUB CITY PAVING - CASSIDY**, HUB CITY PAVING

STATUS: Prospect Open Pit

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 04 24 N

LONGITUDE: 123 53 29 W

ELEVATION: 60 Metres

LOCATION ACCURACY: Within 500M

COMMENTS:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5435991

EASTING: 434898

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Hub City Paving Pit is Crown Land.

BIBLIOGRAPHY

ARMS 1340
Air Photo BC82010-129
Geotech File 10.4350.54358PP
MTH District Pit 1P012

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW071**

NATIONAL MINERAL INVENTORY:

NAME(S): **MILLNER SAND AND GRAVEL**, MILLNER SAND & GRAVEL

STATUS: Prospect Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092G04W

BC MAP:

LATITUDE: 49 04 36 N

NORTHING: 5436395

LONGITUDE: 123 55 47 W

ELEVATION: 60 Metres

EASTING: 432103

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Industrial Min.

TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Quaternary

Undefined Group

Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Millner Sand and Gravel Pit is Crown Land.

BIBLIOGRAPHY

ARMS 1341
Air Photo BC82010-129
Geotech File 10.4322.54362PP
MTH District Pit 1P013

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW072**

NATIONAL MINERAL INVENTORY:

NAME(S): **LADYSMITH N SOURCES 1987**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W 092B13W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 48 59 44 N
LONGITUDE: 123 49 18 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5427287
EASTING: 439896

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Ladysmith N Sources Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4635
Geotech File 10.4400.54271CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW073**

NATIONAL MINERAL INVENTORY:

NAME(S): **HUB CITY PAVING AIRPORT**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 02 15 N
LONGITUDE: 123 52 08 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5431988
EASTING: 436495

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Hub City Paving Airport Pit is Private.

BIBLIOGRAPHY

ARMS 4636
Geotech File 10.4366.54318PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW074**

NATIONAL MINERAL INVENTORY:

NAME(S): **MUNICIPALITY OF LADYSMITH**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 02 21 N
LONGITUDE: 123 52 18 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5432176
EASTING: 436294

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Municipality of Ladysmith Pit is Private.

BIBLIOGRAPHY

ARMS 4637
Geotech File 10.4364.54320PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW075**

NATIONAL MINERAL INVENTORY:

NAME(S): **CASSIDY GRAVEL STUDY 1961**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 03 39 N
LONGITUDE: 123 52 39 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5434589
EASTING: 435896

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Cassidy Gravel Study 1961 Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4638
Geotech File 10.4360.54344CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW076**

NATIONAL MINERAL INVENTORY:

NAME(S): **LAFARGE SPRUSTON ROAD PIT**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 04 10 N
LONGITUDE: 123 54 38 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5435575
EASTING: 433493

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Lafarge Spruston Road Pit is Private.

BIBLIOGRAPHY

ARMS 4639
Geotech File 10.4336.54354PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW077**

NATIONAL MINERAL INVENTORY:

NAME(S): **RING CONTRACTING LTD.**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 04 40 N
LONGITUDE: 123 54 48 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5436504
EASTING: 433301

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Ring Contracting Ltd. Pit is Private.

BIBLIOGRAPHY

ARMS 4640
Geotech File 10.4334.54363PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW078**

NATIONAL MINERAL INVENTORY:

NAME(S): **CITY OF NANAIMO PIT**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 04 43 N
LONGITUDE: 123 54 23 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5436590
EASTING: 433809

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The City of Nanaimo Pit is Private.

BIBLIOGRAPHY

ARMS 4641
Geotech File 10.4339.54364PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 467
REPORT: RGEN0100

MINFILE NUMBER: **092GSW079**

NATIONAL MINERAL INVENTORY:

NAME(S): **SIDDICK SPUR PIT - CPFP**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 04 56 N
LONGITUDE: 123 53 59 W
ELEVATION: 60 Metres
LOCATION ACCURACY: Within 500M
COMMENTS:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5436986

EASTING: 434301

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Siddick Spur Pit is Private.

BIBLIOGRAPHY

ARMS 4642
Geotech File 10.4344.54368PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW079**

MINFILE NUMBER: **092GSW080**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOMERICH SAND AND GRAVEL**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 05 02 N
LONGITUDE: 123 54 24 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5437177
EASTING: 433796

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Gomerich Sand and Gravel Pit is Private.

BIBLIOGRAPHY

ARMS 4643
Geotech File 10.4339.54370PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW081**

NATIONAL MINERAL INVENTORY:

NAME(S): **SCHON TIMBER LTD. PIT**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 05 09 N
LONGITUDE: 123 54 58 W
ELEVATION: 60 Metres
LOCATION ACCURACY: Within 500M
COMMENTS:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5437402

EASTING: 433109

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Schon Timber Ltd. Pit is Private.

BIBLIOGRAPHY

ARMS 4644
Geotech File 10.4332.54372PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW082**

NATIONAL MINERAL INVENTORY:

NAME(S): **CEDAR ROAD**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 05 42 N
LONGITUDE: 123 52 11 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5438381
EASTING: 436508

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Cedar Road Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4645
Geotech File 10.4366.54382CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW083**

NATIONAL MINERAL INVENTORY:

NAME(S): **GREENAWAY SAND AND GRAVEL**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 06 06 N
LONGITUDE: 123 56 04 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5439178
EASTING: 431792

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Greenaway Sand and Gravel Pit is Private.

BIBLIOGRAPHY

ARMS 4646
Geotech File 10.4319.54390PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW084**

NATIONAL MINERAL INVENTORY:

NAME(S): **HARMAC - CEDAR ROCK O/C**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W 092F01E
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 06 51 N
LONGITUDE: 124 02 39 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5440676
EASTING: 423798

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Harmac - Cedar Rock O/C Pit is owned by the Ministry of Transportation and Highways.

BIBLIOGRAPHY

ARMS 4647
Geotech File 10.4236.54405MP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW085**

NATIONAL MINERAL INVENTORY:

NAME(S): **DUKE POINT CORRIDOR 1980**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 07 00 N
LONGITUDE: 123 52 52 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5440799
EASTING: 435704

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Duke Point Corridor 1980 Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4648
Geotech File 10.4358.54406CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW086**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHASE R - SILVA BAY 1974**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 08 03 N
LONGITUDE: 123 48 37 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5442687
EASTING: 440894

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Chase R - Silva bay 1974 Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4649
Geotech File 10.4410.54425CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 475
REPORT: RGEN0100

MINFILE NUMBER: **092GSW087**

NATIONAL MINERAL INVENTORY:

NAME(S): **GABRIOLA ISLAND 1972**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:
LATITUDE: 49 08 21 N
LONGITUDE: 123 45 20 W
ELEVATION: 60 Metres
LOCATION ACCURACY: Within 500M
COMMENTS:

Open Pit

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

NORTHING: 5443201
EASTING: 444891

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Gabriola Island 1972 Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4650
Geotech File 10.4450.54430CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW088**

NATIONAL MINERAL INVENTORY:

NAME(S): **COLLEGE DRIVE ROCK CUT**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 09 45 N
LONGITUDE: 123 58 31 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5445978
EASTING: 428899

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The College Drive Rock Cut Pit is Private. It is a proposed cut for the Nanaimo inner route.

BIBLIOGRAPHY

ARMS 4651
Geotech File 10.4290.54458QP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW089**

NATIONAL MINERAL INVENTORY:

NAME(S): **NANAIMO INNER ROUTE 1992**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 10 08 N
LONGITUDE: 123 58 56 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5446695
EASTING: 428402

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Nanaimo Inner Route 1992 Pit is Crown Land.

BIBLIOGRAPHY

ARMS 4653
Geotech File 10.4285.54465CS

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW090**

NATIONAL MINERAL INVENTORY:

NAME(S): **BROWN PROPERTY**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092G04W
BC MAP:

Open Pit

MINING DIVISION: Nanaimo

LATITUDE: 49 11 11 N
LONGITUDE: 123 49 24 W
ELEVATION: 60 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5448502
EASTING: 440005

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Brown Property Pit is Private.

BIBLIOGRAPHY

ARMS 4654
Geotech File 10.4401.54483PP

DATE CODED: 1994/08/30
DATE REVISED: 1994/08/31

CODED BY: LDJ
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW091**

NATIONAL MINERAL INVENTORY:

NAME(S): **BOWEN ISLAND**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 23 24 N
LONGITUDE: 123 21 39 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5470874
EASTING: 473814

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

File for pit closed by MTH due to low volume. Product is 75 millimetres Well Graded Base.

BIBLIOGRAPHY

ARMS 68
MTH District Pit 1140A

DATE CODED: 1994/08/31
DATE REVISED: 1994/08/31

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW092**

NATIONAL MINERAL INVENTORY:

NAME(S): **PROUDLOCK**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 22 36 N
LONGITUDE: 123 21 12 W
ELEVATION: 150 Metres

NORTHING: 5469389
EASTING: 474352

LOCATION ACCURACY: Within 500M

COMMENTS: Proudlock Pit is 4.8 kilometres west of Snug Cove on Grafton Road,
Bowen Island.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Proudlock pit is a private pit. Overburden at this site consists
of organic topsoil.

BIBLIOGRAPHY

ARMS 69
MTH District Pit 1140C

DATE CODED: 1994/08/31
DATE REVISED: 1994/08/31

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW093**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRUNSWICK BEACH**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 28 18 N
LONGITUDE: 123 14 17 W

NORTHING: 5479918
EASTING: 482753

ELEVATION: 150 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Brunswick Beach Pit is 1.5 kilometres north of Lions Bay Village, Howe Sound.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Brunswick Beach Pit occurs in a glaciofluvial landform where overburden of unspecified thickness consists of till. The product from this pit is 25 millimetres Well Graded Base. This pit is located on Crown Land.

This pit may have a maximum volume of <300,000 cubic metres if a waste pile is not removed.

BIBLIOGRAPHY

ARMS 70
Geotechnical File R1-M11-4
MTH District Pit 1150D
MTH Provincial Pit 167

DATE CODED: 1994/08/31
DATE REVISED: 1994/08/31

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW094**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCMILLAN**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 26 07 N
LONGITUDE: 123 28 54 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5475957
EASTING: 465078

LOCATION ACCURACY: Within 500M

COMMENTS: McMillan Pit is north of Hopkins Landing.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The McMillan Pit is on Reserved Crown land.

BIBLIOGRAPHY

ARMS 182
MTH District Pit 1213A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/02

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW095**

NATIONAL MINERAL INVENTORY:

NAME(S): **MASON**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G05W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 29 13 N
LONGITUDE: 123 47 50 W

NORTHING: 5481895
EASTING: 442260

ELEVATION: 120 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: This pit is located 2.1 kilometres north of Highway #101, east of, and adjoining Mason Road.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Clay
 Silt
 Sand
 Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Mason Pit is located on Reserved Crown Land. The pit produces Granular Borrow from a deltaic deposit. Overburden at this site consists of marine silt/clay.

BIBLIOGRAPHY

ARMS 203
MTH District Pit 1279D
Air Photo BC78045-262

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW096**

NATIONAL MINERAL INVENTORY:

NAME(S): **CROW**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G05E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 25 40 N
LONGITUDE: 123 37 08 W
ELEVATION: 150 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5475196
EASTING: 455122

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Crow Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 208
MTH District Pit 1290A
MTH Provincial Pit 200

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 485
REPORT: RGEN0100

MINFILE NUMBER: **092GSW097**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROBERTS CREEK ROAD**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G05E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 15 N
LONGITUDE: 123 34 25 W
ELEVATION: 50 Metres

NORTHING: 5472545
EASTING: 458385

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located approximately 5 kilometres west of Gibsons.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Chert
Basalt
Gneiss
Granodiorite
Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Roberts Creek Road Pit is located on private land. This pit produces 25 millimetres Well Graded Base. Extraction is from a kame deposit with 3.0 metres clay and topsoil overburden. Material derived from the deposit is 48 per cent granodiorite, 27 per cent gneiss, 19 per cent basalt and 6 per cent chert.

BIBLIOGRAPHY

ARMS 209
MTH District Pit 1290G
MTH Provincial Pit 1290

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW097**

MINFILE NUMBER: **092GSW098**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOWER POINT**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G05E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 49 24 09 N
LONGITUDE: 123 33 09 W

NORTHING: 5472348
EASTING: 459915

ELEVATION: 110 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit is located 3 kilometres west of Gibsons, 0.3 kilometre south of Highway #101.

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Gower Point Pit is located on private land. Extraction is from a kame terrace with 0.3 metre topsoil for overburden.

BIBLIOGRAPHY

ARMS 210
MTH District Pit 1290H

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/07

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW099**

NATIONAL MINERAL INVENTORY:

NAME(S): **CYPRESS**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 21 04 N
LONGITUDE: 123 14 18 W
ELEVATION: 200 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5466516
EASTING: 482691

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Cypress Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 231
MTH District Pit 1150A

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW100**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROGERS CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 20 59 N
LONGITUDE: 123 12 21 W
ELEVATION: 250 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5466354
EASTING: 485051

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Rogers Creek Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 232
MTH District Pit 1150B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW101**

NATIONAL MINERAL INVENTORY:

NAME(S): **MIDDLE CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 20 51 N
LONGITUDE: 123 11 16 W
ELEVATION: 200 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5466104
EASTING: 486361

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Middle Creek Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 233
MTH District Pit 1150C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW102**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAPILANO R BAR**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 20 56 N
LONGITUDE: 123 06 46 W
ELEVATION: 100 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5466247
EASTING: 491809

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Capilano R Bar Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 238
MTH District Pit 1160B

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/09

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW103**

NATIONAL MINERAL INVENTORY:

NAME(S): **TAYLOR**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 02 48 N
LONGITUDE: 122 21 41 W
ELEVATION: 50 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5432840
EASTING: 546666

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Taylor Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 239
MTH District Pit 1160C

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW104**

NATIONAL MINERAL INVENTORY:

NAME(S): **LYNN CREEK CEMETARY**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 19 48 N
LONGITUDE: 123 00 25 W
ELEVATION: 100 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5464141
EASTING: 499495

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Quaternary Undefined Group Undefined Formation

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Lynn Creek Cemetary Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 240
MTH District Pit 1160D
Falconbridge File

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW105**

NATIONAL MINERAL INVENTORY:

NAME(S): **DEEKS-MCBRIDE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 18 32 N
LONGITUDE: 123 00 52 W
ELEVATION: 40 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5461795
EASTING: 498950

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Deeks-McBride Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 241
MTH District Pit 1160E

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW106**

NATIONAL MINERAL INVENTORY:

NAME(S): **N VAN MUNICIPAL BAR**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06W
BC MAP:
LATITUDE: 49 19 48 N
LONGITUDE: 123 00 25 W
ELEVATION: 5 Metres
LOCATION ACCURACY: Within 500M
COMMENTS:

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

NORTHING: 5464141

EASTING: 499495

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The North Vancouver Municipal Bar Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 242
MTH District Pit 1160F
MTH Provincial Pit 1160

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW107**

NATIONAL MINERAL INVENTORY:

NAME(S): **LYNN CREEK BOTTOM**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 19 27 N
LONGITUDE: 123 01 23 W
ELEVATION: 75 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5463493
EASTING: 498325

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Lynn Creek Bottom Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 243
MTH District Pit 1160G
Falconbridge File

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092GSW108**

NATIONAL MINERAL INVENTORY:

NAME(S): **RUTLEDGE STOCKPILE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092G06E
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 49 18 12 N
LONGITUDE: 123 02 30 W
ELEVATION: 5 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5461178
EASTING: 496971

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Aggregate Sand Gravel

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Industrial Min.
TYPE: B12 Sand and Gravel

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Undefined Group	Undefined Formation	

LITHOLOGY: Sand
Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Rutledge Stockpile Pit is located on Reserved Crown Land.

BIBLIOGRAPHY

ARMS 244
MTH District Pit 1160H

DATE CODED: 1994/08/31
DATE REVISED: 1994/09/12

CODED BY: CEK
REVISED BY: CEK

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE001**

NATIONAL MINERAL INVENTORY: 092J15 Au3

NAME(S): **BRALORNE**, BRALORNE MINE, LORNE (L.588),
KING, WOOD CHUCK (L.579), CROWN,
WEDGE, QUEEN, MADDIE,
PETER, BIG SOLLY, TELEPHONE,
TAYLOR, 52, ZONE B,
EMPIRE

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 46 40 N
LONGITUDE: 122 49 20 W
ELEVATION: 960 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: The main portal on the Telephone claim (Lot 670).

Underground
MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5624910
EASTING: 512632

COMMODITIES: Gold Silver Lead Zinc Copper
 Tungsten

MINERALS

SIGNIFICANT: Gold Pyrite Arsenopyrite Sphalerite Galena
 Chalcopyrite Pyrrhotite Tetrahedrite
ASSOCIATED: Quartz Calcite Mariposite Talc Scheelite
 Ankerite
ALTERATION: Siderite Albite
ALTERATION TYPE: Carbonate Albitic
MINERALIZATION AGE: Upper Cretaceous
ISOTOPIC AGE: 70 - 80 Ma DATING METHOD: Argon/Argon MATERIAL DATED: Mariposite

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Mesothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Tabular
COMMENTS: Estimated mineralization age is Upper Cretaceous.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	Bralorne Igneous Complex
Permian			

LITHOLOGY: Diorite
Gabbro
Greenstone
Sodic Granite
Serpentinite
Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact Regional Cadwallader RELATIONSHIP: GRADE:
PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: UNDERGROUND REPORT ON: Y
CATEGORY: Combined YEAR: 1996
QUANTITY: 432500 Tonnes
COMMODITY: Gold GRADE: 10.6300 Grams per tonne
COMMENTS: Proven and probable reserves above the 800 level and readily available for extraction.
REFERENCE: Information Circular 1996-1, page 17; 1997-1, page 20.

CAPSULE GEOLOGY

Empire and King. The principal veins in the Crown and Empire sections are known as the 51 and 77 veins, their faulted extensions, the 55 and 53 veins respectively, and crossover veins 59, 73, 75 and 79. The main veins in the King section are the North, Shaft, King, Alhambra and C veins. For descriptive purposes, the 51 (and 55) and 77 (and 53) veins are treated separately, under the names of the original mines, before amalgamation into Bralorne Mines. These are the Ida May mine (Empire and Blackbird) for the 51 vein - see 092JNE002, and the Coronation mine (Little Joe and Countless) for the 77 vein - see 092JNE007. The most prolific vein was the 77.

Generally, the veins average 1.5 metres in width and range up to 6 metres. They are often tabular, well-ribboned or partly ribboned, and partly massive or brecciated. All types have hosted ore, although the best values came from ribboned veins. The gangue minerals are quartz, calcite, mariposite, talc and scheelite. The principal sulphides are pyrite, arsenopyrite and sphalerite, which along with native gold, galena, chalcocopyrite, pyrrhotite and tetrahedrite occupy less than one per cent of the veins. Carbonate alteration (siderite) is widespread with albite occurring along vein shears.

The Bralorne mine was accessible by 4 main shafts and worked on 44 levels.

Bralorne Pioneer Gold Mines Ltd., in a joint venture with International Avino Mines Ltd., plans to re-open the historic Bralorne mine encompassing the combined Bralorne, Pioneer (092JNE004) and Loco (092JNE164) properties, following issuance of a Mine Development Certificate in March 1995. Initial underground mining will be from the formerly producing Bralorne 51 vein area where detailed exploration programs, in recent years, have outlined proven, probable and possible reserves of 570,000 tonnes grading 8.22 grams per tonne gold. Proven and probable reserves above the 800 level and readily available for extraction total 432,500 tonnes grading 10.63 grams per tonne gold. There are also reserves of 549,125 tonnes grading 9.26 grams per tonne gold below the 800 level (Information Circular 1997-1, page 20). The nearby Countless vein on the Loco property has 110,000 tonnes probable and possible reserves grading 17.1 grams per tonne gold. The Peter vein was drifted along a strike length of 35 metres on the 800 level, 305 metres below the surface (T. Schroeter, personal communication, 1996). Mining and milling operations are forecast to start at about 100 to 125 tonnes per day, increasing to 400 tonnes per day at a later date. Mill tune-up and production is scheduled for mid-March 1997. Milling machinery, purchased from Zeballos, is being assembled at the property and the mill building has been rehabilitated (Information Circular 1996-1, page 17).

In 1995, Bralorne Pioneer Gold Mines Ltd., and partner International Avino Mines Ltd., with support from the Explore B.C. Program, carried out an extensive exploration program including trenching and 650 metres of surface diamond drilling in 7 holes on the Maddie zone resulting in the discovery of new veins. Underground work on the 800 level consisting of 233 metres of drifting, 100 metres of crosscuts and 544 metres of diamond drilling in 4 holes traced the Peter and Big Solly veins to and beyond a crossfault (Explore B.C. Program 95/96 - A32).

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EMPR Explore B.C. Program 95/96 - A32
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303, 311; 1986, p. 23; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
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EMPR GEM 1969-187; 1970-225; 1971-308; 1973-251; 1974-204

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- EMPR OF 1988-3; 1989-4; 1990-10; 1992-1; 1994-1
- EMPR P 1991-4, pp. 182,183
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DATE CODED: 1987/01/12
DATE REVISED: 2003/02/04

CODED BY: MM
REVISED BY: MPS

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE002**

NATIONAL MINERAL INVENTORY: 092J15 Au3

NAME(S): **IDA MAY (L.457)**, EMPIRE, 51 VEIN (BRALORNE),
BRADIAN BLACKBIRD (L.1176), 55 VEIN (BRALORNE),
BRALORNE

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 46 15 N
LONGITUDE: 122 47 40 W
ELEVATION: 1250 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location is centre of Ida May claim, about 1 kilometre southeast of Bralorne. The Blackbird tunnel (original) is about 500 metres north-east. Both became part of Bralorne mine (092JNE001) in the 1940's.

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5624361

EASTING: 514495

COMMODITIES: Gold Silver Lead

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Gold Sylvanite Stibnite

Galena

COMMENTS: Free gold/arsenopyrite/sylvanite intergrown; stibnite as inclusions in calcite.

ASSOCIATED: Quartz Calcite

ALTERATION: Hematite

ALTERATION TYPE: Carbonate Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Irregular

COMMENTS: The Ida May vein is 1.2 to 4 metres wide and strikes northwest and dips steeply to the northeast.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Permian			Bralorne Igneous Complex
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Sodic Granite
Diorite
Albitite Dike
Quartz Sericite Schist
Greenstone
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

Cadwallader

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

The area of the Ida May occurrence is underlain by Mississippian to Jurassic Bridge River Complex (Group) and Upper Triassic Cadwallader Group sediments and volcanics which are transected by a major north trending, steeply southwest dipping fault known as the Cadwallader break. The fault is a deep-seated crustal structure related to the Fraser fault system to the south. The fault is intruded by small granitic to ultramafic stocks and dykes. Diorite to gabbro of the Permian Bralorne Igneous Complex intrudes the Cadwallader break as an elongate body. Diorite also intrudes Pioneer Formation (Cadwallader Group) greenstones although at times the contact appears gradational. The diorite and greenstone are in turn "intruded" by sodic granite which may be an apophysis of the Cretaceous to Tertiary Bendor pluton. The sodic granite also appears gradational with the diorite and exhibits a migmatitic texture, which indicates that it may be a late differentiation of the same magma that formed the diorite. A 60-metre wide belt of serpentinite (Bralorne Igneous Complex) borders the diorite on the southeast at the contact with the Noel Formation (Cadwallader Group). Finally, the intrusive belt is intruded by albitite dykes which often follow the chilled margin of the sodic granite and where associated with

CAPSULE GEOLOGY

quartz veins, the dykes are altered to platy quartz-sericite schist. For details on areas geology refer to the Bralorne mine (092JNE001).

The Ida May (or Empire) vein, later known as the 51 vein, strikes northwest and dips steeply northeast in the footwall of the Empire fault. It is irregular, commonly composed of ribboned quartz, sometimes 1 to 4 metres wide or much narrower and surrounded by one metre of sheared wall rock. Free gold is associated with arsenopyrite and sylvanite intergrowths. Stibnite, pyrite and galena also occur, with the stibnite occurring as inclusions in calcite. Alteration is carbonaceous and hematitic. The vein cuts through soda granite and diorite, and also follows an albitite dyke which is altered to quartz sericite schist. The vein gradually decreases as it enters greenstone at the east end.

Earlier reports describe two parallel veins: an upper vein shallowly dipping with grades of 38.8 grams per tonne across 0.6 metre, and a vertically dipping lower vein grading 5.35 grams per tonne across 1 metre (Minister of Mines Annual Report 1913, page 258). The Blackbird or 55 vein is the faulted extension of the 51 vein, occurring in the hanging wall of the Empire fault. It strikes northeast and dips steeply; the southwest end of the vein is cut off by serpentinite. The vein is well ribboned and wide, although it also occurs as a stringer in sheared diorite and along the southern side of a 38 metre wide altered albitite dyke. The western 60 metres of the vein occurs in talc rock on the edge of the serpentinite. Early production (1918-1919) on the Ida May before joining the Bralorne workings, yielded 145 tonnes of ore containing 2,353 grams of gold and 283 grams of silver.

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W MINER Dec 1945, pp. 40-44
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/08/12

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE003**

NATIONAL MINERAL INVENTORY: 092J15 Au14

NAME(S): **ALMA (L.2375)**, NEW ERA, SILVER BASIN,
GRULL - WIIKSNE

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 47 00 N
LONGITUDE: 122 50 03 W
ELEVATION: 990 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Located 1.5 kilometres south of junction between Cadwallader Creek
and Hurley River, 2 kilometres northwest of Bralorne townsite.
Location is adit portal.

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5625744
EASTING: 511691

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz Mariposite
ALTERATION TYPE: Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION:
COMMENTS: Quartz vein in well defined fissure varies from 5 centimetres to 0.6
metres in width.
STRIKE/DIP: 170/75E
TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Bendor Pluton
Cretaceous-Tertiary			

LITHOLOGY: Pelitic Schist
Sodic Granite
Albitite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Gold
GRADE: 9.4000 Grams per tonne
COMMENTS: An average gold value.
REFERENCE: Geological Survey of Canada Memoir 130, page 95.

CAPSULE GEOLOGY

A quartz vein occurs in a fissure paralleling Mississippian to Jurassic Bridge River Complex (Group) pelitic schists. The fissure dips opposite to that of the schist and forms along the contact of an albitite porphyry dyke, which has also been called "soda-granite" and is believed to be altered granodiorite related to the Cretaceous to Tertiary Bendor Intrusives (ie. a young phase of the Cretaceous Plutonic Complex). The porphyry intrusion comprises the hanging wall of the vein and is traversed by quartz stringers. The fissure contains abundant silicified fragments of the wallrock. The surrounding pelitic schist is pyritized. The quartz vein varies from several centimetres to 60 centimetres in width and contains scattered mariposite. Average assays grade 9.4 grams gold per tonne (Geological Survey of Canada Memoir 130, page 95).

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 504
REPORT: RGEN0100

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DATE CODED: 1985/07/24
DATE REVISED: 1991/09/17

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JNE003

CAPSULE GEOLOGY

The main vein strikes west-northwest and dips steeply north in a reverse fault. It is strongly ribboned, averages 1 metre in width and splits into a composite system with numerous loops, branches and crossfaulting. There are 4 main ore shoots which have been worked to 1074 metres depth, along dip and for 1140 metres along strike. The 27 vein occupies a tension fracture, branching off the hanging wall side of the main vein. It strikes northeast and dips moderately northwest, averaging 30 to 150 centimetres in width but attaining up to 6 metres in width. The 27 vein has been followed along strike for 48 metres and is distinctive from the main vein in that the quartz is massive bull quartz rather than ribboned.

The Countless vein is exposed on the surface on the Pioneer property, and passes north into the Bralorne property where it is correlated with the Coronation vein (092JNE007).

The Pioneer veins are composed of mainly quartz gangue with fractures filled with calcite and ankerite. Small shoots of scheelite occur in the main vein and tourmaline is said to occur in cavities in the 27 vein. The quartz ribbons separate streaks containing chlorite, sericite, mariposite, gouge sulphides and gold. The principal sulphides, arsenopyrite and pyrite, occur as disseminations in massive quartz or in the ribbon partings. Massive arsenopyrite is often associated with free gold. Other sulphides include sphalerite, galena, chalcopyrite, pyrrhotite, marcasite and stibnite. Wallrocks are intensely altered and contain quartz, sericite, mariposite, kaolin, alunite, calcite and arsenopyrite. Low grades of gold are sometimes found in the wallrocks.

An assay was reported as 24 grams per tonne gold at the 25 level (600 metre long drift, average over 412 metres by 15 metres width) (Property File - Report by J.S. Stevenson, 1947).

The Pioneer property was consolidated with Bralorne Mines in 1959.

Proven and possible reserves of the Countless vein are 110,000 tonnes grading 17.1 grams per tonne gold (Information Circular 1996-1, page 17). Bralorne Pioneer Gold Mines Ltd. and International Avino Mines Ltd. hold the property.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 2003/02/04

CODED BY: GSB
REVISED BY: MPS

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE005**

NATIONAL MINERAL INVENTORY:

NAME(S): **MIX (L.6157.6159)**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 44 50 N
LONGITUDE: 122 43 55 W
ELEVATION: 1245 Metres

NORTHING: 5621750
EASTING: 518911

LOCATION ACCURACY: Within 500M

COMMENTS: Location of 2 adits at river level (Cadwallader Creek), 6 kilometres southeast of Bralorne. Adits are on 92J10E, claims extend north onto 92J15E.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Unknown
COMMENTS: "Iron sulphides".
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
COMMENTS: Vein is 54 metres long and strikes to the southeast.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Upper Triassic

GROUP

Bridge River
Cadwallader

FORMATION

Undefined Formation
Pioneer

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Argillite
Chert
Meta Sediment/Sedimentary
Greenstone
Quartz Vein

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Pre-mineralization

GRADE: Hornfels

CAPSULE GEOLOGY

The Mix workings are underlain by thinly bedded argillaceous and cherty metasediments of the Mississippian to Jurassic Bridge River Complex (Group). Intercalated with the northwest striking, northeast dipping sediments are lenticular greenstone bodies. Highly metamorphosed, massive greenstone bodies a few metres thick are also reported; these are probably dykes "feeding" the main Upper Triassic Pioneer Formation (Cadwallader Group) greenstone body located to the northeast. Alongside these "dykes", shearing and faulting occurs nearly parallel with the enclosing metasediments. A southeast trending drift follows a fissure for 54 metres containing quartz in irregular, small deposits as veins and partial wallrock replacements. Sparse iron sulphides are reported with gold values up to 10.28 grams per tonne (or \$6 per tonne in 1937) (Geological Survey of Canada Memoir 213, page 107).

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CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/17

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE006**

NATIONAL MINERAL INVENTORY: 092J15 Au15

NAME(S): **NATIVE SON (L.5896)**, BRIDGE RIVER OGDEN

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 15 N
LONGITUDE: 122 49 20 W
ELEVATION: 1160 Metres

NORTHING: 5624356
EASTING: 512536

LOCATION ACCURACY: Within 500M

COMMENTS: On ridge between Carl and Noel creek, 1 kilometre south of Bralorne. Location is portal on Lot 5896. Vein is reported to be exposed about 200 metres south of adit.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrrhotite Stibnite Arsenopyrite Pyrite
ASSOCIATED: Quartz Albite
ALTERATION: Talc
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Irregular
COMMENTS: Irregular veins and lenses are 0.5 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	
Permian-Triassic	Bridge River	Undefined Formation	

LITHOLOGY: Meta Sediment/Sedimentary
Quartz Vein
Greenstone
Granite
Diorite
Serpentinite

HOSTROCK COMMENTS: Greenstone may be intrusive into metasediments or may be part of the Pioneer Formation (Upper Triassic Cadwallader Group).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
Cadwallader
RELATIONSHIP:
GRADE:

CAPSULE GEOLOGY

Mississippian to Jurassic Bridge River Complex (Group) metasediments and closely associated Upper Triassic Pioneer Formation (Cadwallader Group) mafic volcanics (greenstone) are tightly folded with east-west trending subvertical axial planes. Granites and diorites of the Permian Bralorne Igneous Complex and a narrow talc-altered serpentine belt (President Ultramafics correlative with the Permian and older Shulaps Ultramafic Complex) intrude the metasediments.

Irregular, 0.5-metre wide quartz veins and lenses parallel the enclosing metasediments and contain albite, pyrrhotite and small amounts of stibnite, arsenopyrite and pyrite. The Native Son vein is reported to be exposed approximately 200 metres south of the adit. Samples were reported to assay up to 23.31 grams per tonne silver and traces of gold (National Mineral Inventory 092J15 Au15).

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 510
REPORT: RGEN0100

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GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291
WWW <http://www.infomine.com/>

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/17

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

ribboned. It contains quartz, calcite, sericite, ankerite, mariposite and "patchy" scheelite. Sulphide minerals include arsenopyrite, pyrite, minor sphalerite, pyrrhotite, chalcopyrite and occasional stibnite, galena and molybdenite. Gold is closely associated with arsenopyrite. The vein has a vertical continuity of 1500 metres. At lower levels, it averages 38.4 grams per tonne across 2 metres width for 160 metres; the probable (geological) reserve is 80,723 tonnes (Property File - Campbell, 1973). The 77 vein was the most prolific of the Bralorne veins and produced 1,904,700 tonnes of ore up until the mine closed in 1971.

The 53 vein, the faulted extension of the 77 vein, is described as wide and strong and gradually steepens as it approaches the serpentine belt. Both the 77 and 53 veins contain numerous branches in the foot and hanging walls. For detailed geology setting around the Bralorne mine refer to 092JNE001.

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DATE CODED: 1985/07/24
DATE REVISED: 1991/08/13

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE008**

NATIONAL MINERAL INVENTORY: 092J15 Au4

NAME(S): **HOLLAND (L.7258.7079)**, NOMAD, RIEL

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 45 40 N
LONGITUDE: 122 45 43 W
ELEVATION: 1520 Metres

NORTHING: 5623287
EASTING: 516790

LOCATION ACCURACY: Within 500M

COMMENTS: One kilometre northeast of Cadwallader Creek, 3.5 kilometres south of Bralorne. Location of Holland adit (Assessment Report 16682).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Talc
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Irregular

STRIKE/DIP: 090/40N

TREND/PLUNGE:

COMMENTS: Vein pinches out in sheared sediments and is 0.6 metres wide and has a strike length of 9 metres.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	
Mesozoic-Cenozoic	Bridge River	Undefined Formation	

LITHOLOGY: Greenstone
Andesite
Quartzite
Argillite
Chert

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

Cadwallader
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY

YEAR: 1986

Gold

GRADE

1.5400

Grams per tonne

COMMENTS: Best assay: sample from Holland adit.
REFERENCE: Assessment Report 15415.

CAPSULE GEOLOGY

The property is underlain by Mississippian to Jurassic meta-sediments of the Bridge River Complex (Group) including thinly bedded cherts, argillites and quartzites with small lenticular masses of andesite (possibly dykes?). Greenstones of the Upper Triassic Pioneer Formation, Cadwallader Group are faulted against the meta-sediments, which are intruded by granitic rock of the Cretaceous to Tertiary Bendor Pluton, about 1 kilometre east.

Five quartz-calcite veins are reported in the east trending Holland adit. The veins occur along fissures in greenstone and at the contact between greenstone and quartzite. The average width is 0.6 metres but the veins are inconsistent and pinch out in soft sheared argillite. The veins contain sparse sulphides and talc and the wall rocks are heavily charged with pyrite. The best recent grab sample, taken in 1986 from the Holland adit, assayed 1.54 grams gold per tonne (Assessment Report 15415). This sample is in contrast to

CAPSULE GEOLOGY

an earlier sample assaying 5.14 grams gold per tonne across 0.6 meter, taken by Cairnes in the same adit in 1935 (Geological Survey of Canada Memoir 213).

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DATE CODED: 1985/07/24
DATE REVISED: 1991/05/13

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE009**

NATIONAL MINERAL INVENTORY:

NAME(S): **PIONEER EXTENSION (L.5560)**, PACIFIC EASTERN

STATUS: Developed Prospect

Underground

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 45 15 N

LONGITUDE: 122 45 17 W

ELEVATION: 1270 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Collar of extensive underground workings (Assessment Report 15730, Figure 8.)

UTM ZONE: 10 (NAD 83)

NORTHING: 5622298

EASTING: 517400

COMMODITIES: Gold
 Talc

Silver

Copper

Lead

Zinc

MINERALS

SIGNIFICANT: Gold Pyrite Arsenopyrite Pyrrhotite Sphalerite

Chalcopyrite Galena Talc

ASSOCIATED: Quartz Sericite Ankerite Calcite

ALTERATION: Carbonate

ALTERATION TYPE: Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
 CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

M07

Ultramafic-hosted talc-magnesite

COMMENTS: Veins are 1 to 6 meters wide (average 1.2 to 2.0 meters). Ore shoots mined had strike lengths of 1 to 1.5 kilometers and extended downdip.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Upper Triassic

Cadwallader

Pioneer

Paleozoic-Mesozoic

Bridge River

Undefined Formation

Permian

Paleozoic

Bralorne Igneous Complex
 President Ultramafics

LITHOLOGY:

Greenstone
 Augite Diorite Dike
 Sodic Granite Dike
 Diorite
 Argillite
 Chert
 Serpentinite
 Hornblende Porphyry Dike
 Feldspar Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1985

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

2.7400

Grams per tonne

COMMENTS: Drill hole P85-02 tested the most significant, known veins at depth. Two veins, 1.0 and 1.5 metres wide, assayed trace to 2.74 g/t gold.

REFERENCE: Assessment Report 15730.

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1937

SAMPLE TYPE: Chip

COMMODITY

GRADE

Gold

42.3000

Grams per tonne

COMMENTS: Across 30 centimetres of vein, near bottom of winze on 690 level.

REFERENCE: Spotty high values.
 Property File - Report by Dolmage, 1937.

CAPSULE GEOLOGY

The Pioneer Extension property lies between Noel and Chism Creeks, along the southwest side of Cadwallader Creek, in the Pacific Coast Range. In this part of the Coast Crystalline tectonic belt, extensive splays and cross faults of the Bralorne fault system are spatially related to numerous mineral occurrences in the Bridge River mining camp. Mississippian to Jurassic Bridge River Group cherts are faulted against greenstone of the Pioneer Formation and metasedimentary rocks of the Hurley and Noel formations, all of the Upper Triassic Cadwallader Group. Dykes and stocks of augite-diorite and soda-granite of the Bralorne Igneous Complex, serpentinized peridotite of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex) and late hornblende and feldspar porphyry dykes are emplaced concordant to the principal formations, following the trend of the main faults.

Talc occurs as an alteration phase within serpentinite. A shaft penetrates 30 metres of talcose rocks continuing exotic blocks of chert and argillite and intruded by albitic dikes.

Banded, discontinuous quartz veins occur in two sets striking northwest and northeast, following fractures in the competent greenstones and crystalline plutonic rocks. Principal production came from 4 large veins, the 77, 51, 21 and the main vein. The main vein strikes due east, dips shallowly north and averages 1.2 to 2.0 metres wide, over a strike length ranging from 1000 to 1500 metres. The vein extends down-dip for 1500 to 2000 metres. The veins consist of white quartz with small amounts of sericite, chlorite, ankerite, calcite, very minor pyrite and arsenopyrite and rare free gold.

The veins have a banded structure and sharply defined walls. Envelopes of hydrothermal carbonate alteration up to 70 metres wide accompany and appear to slightly postdate many of the quartz veins. The down-dip extension of the most significant veins was tested by diamond-drill hole P85-02 in 1985 and intersected 2 quartz veins, 1.0 meter and 1.5 metre wide. Assays ranged from trace to 2.74 grams per tonne gold (Assessment Report 15730).

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EMPR OF 1987-11; 1988-3; 1988-19; 1989-4; 1990-10
EMPR PF (*Reports by V. Dolmage 1937; Company reports for Pacific Eastern Gold Ltd. 1934, 1935, 1936, 1937; Report and Maps by J.S. Stevenson, 1937; Quarterly report, X-Cal Resources Ltd., Aug. 5, 1986; Annual Report, X-Cal Resources Ltd., 1986; Report by N. Church, 1986; Nordin, G. (1983): Geological Report on the Pacific Eastern Property, in 092JNE166)
GSC MAP 430A
GSC MEM 213, pp. 71, 108
GSC SUM RPT 1931A, p. 57
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #94,#115,#161,#168, 1985; #46,#115, 1986
IPDM Sept. 1985
N MINER June 27, 1985, March 24, 1986
PR RELEASE July 10, Sept. 29, 1986
Victoria Colonist, May 1934
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/13

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE010**

NATIONAL MINERAL INVENTORY:

NAME(S): **PAYMASTER**, PAYMASTER NO. 2 (L.6872), TRUCK,
LAZY BOY, IONE, IRIS,
PAY

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:
LATITUDE: 50 44 15 N
LONGITUDE: 122 44 35 W
ELEVATION: 1680 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of Paymaster adit on Lot 6872 (Assessment Report 18226).

Underground

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5620666
EASTING: 518131

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrrhotite
ASSOCIATED: Quartz
ALTERATION: Silica Malachite Azurite
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Breccia Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
COMMENTS: Mineralization is associated with a northerly trending dike and northwest trending shear zone.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Cretaceous-Tertiary			Bendor Pluton
Paleozoic			President Ultramafics

LITHOLOGY: Dacite
Albite Dike
Greenstone
Basalt
Chert
Argillite
Phyllite
Limestone
Harzburgite
Dunite

HOSTROCK COMMENTS: The Bridge River Complex also contains gabbro, diabase, sandstone, conglomerate, serpentinite, blue schist and biotite metamorphic rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Paymaster occurrence is situated 5 kilometres southeast of Bralorne on the south side of Cadwallader Creek.

The first claims in the area were staked by F. Kirkwood in 1930 on a showing of quartz veins located on Crazy Creek. By 1932, prospecting and trenching had traced a 1.8-metre wide albitic dike for 300 metres. This north striking, vertically dipping quartz vein system was found to be gold-bearing. In 1934, Paymaster Gold Mines Ltd. acquired 27 claims between Crazy and Plutus creeks. Development and exploration consisted of prospecting, trenching and a 180-metre adit. In 1983, X-Cal Resources Ltd. conducted a preliminary exploration program of prospecting, geological mapping and rock sampling. In 1985, Hudson Bay Exploration and Development Co. Ltd. conducted an exploration program on the property. Cogema Canada Ltd. conducted property exploration in 1991.

The property lies at the eastern edge of the Coast Crystalline belt along the western margin of the Bralorne fault system in the Mississippian to Jurassic Bridge River Complex. The Bridge River Complex consists of 1000 metres or more of greenstone, basalt, ribbon chert, argillite, phyllite with minor discontinuous limestone,

CAPSULE GEOLOGY

gabbro, diabase, sandstone, conglomerate, serpentinite, blue schist and biotite-bearing metamorphic equivalents.

Locally, argillite, phyllite, basalt and minor limestone form the core of an antiform, and outcrop on the western edge of the claims. Serpentinized harzburgite and dunite, outcropping centrally over approximately 35 per cent of the claims, are part of the Permian and older President Ultramafics, which are probably correlative with the Permian and older Shulaps Ultramafic Complex (P. Schiarizza, personal communication, 1991). On the east side of the property the following formations of the Upper Triassic Cadwallader Group occur: basal Noel Formation argillites and tuff; Pioneer Formation andesitic to basaltic pyroclastics and volcanics; and Hurley Formation argillite, tuff and andesite flows. Several aplite dikes may be associated with the Cretaceous to Tertiary Bendor pluton.

Gold-bearing quartz stringers associated with a 1.8-metre wide albitic dike were discovered during the early 1930s. One short adit was driven at this time. More recent exploration has located a 2.0-metre wide, northwesterly trending, brecciated shear zone in silicified dacite, containing irregularly distributed stringers and masses of quartz and up to 10 per cent disseminated pyrrhotite.

Twelve rock samples were taken in 1991. The best results were from sample 592R, yielding 0.13 gram per tonne gold and 0.15 per cent nickel, and sample 597R yielding 0.15 per cent copper (Assessment Report 22118). Sample 592R was a grab from a large boulder of pale green chert with graphitic stringers. Sample 597R was a grab sample from a malachite and azurite stained boulder containing 1 per cent pyrite, 1 per cent chalcopyrite and minor pyrrhotite, below the Paymaster adit.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Annual Report, X-Cal Resources, 1989)
GSC MEM *213, p. 111
GSC OF 482
GSC SUM RPT 1932, p. 70AII
Wright, R.L. (1974): The Geology of the Pioneer Ultramafite, Unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE011**

NATIONAL MINERAL INVENTORY:

NAME(S): **BUTTE-IXL**, BUTTE, IXL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 42 25 N
LONGITUDE: 122 39 35 W
ELEVATION: 1475 Metres

NORTHING: 5617292
EASTING: 524027

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Butte adit, west of Cadwallader Creek, on northern boundary of Lot 5649 (Assessment Report 15871, Figure 7a).

COMMODITIES: Copper Lead Gold Zinc

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Sphalerite Pyrite Galena

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic Mesothermal

TYPE: I01 Au-quartz veins

SHAPE: Tabular

DIMENSION: STRIKE/DIP: 125/85S

TREND/PLUNGE:

COMMENTS: A 0.6 metre wide quartz vein in adit. A second quartz vein, 60 metres southwest of portal has a northwest strike and dips steeply to the southwest.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Paleozoic
Permian

GROUP

Cadwallader
Cadwallader

FORMATION

Pioneer
Noel

IGNEOUS/METAMORPHIC/OTHER

President Ultramafics
Bralorne Igneous Complex

LITHOLOGY: Argillite
Volcanic
Greenstone
Serpentinized Ultramafic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Cadwallader

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1981

SAMPLE TYPE: Chip

COMMODITY

GRADE

Gold	0.1200	Grams per tonne
Lead	0.0200	Per cent
Zinc	0.4000	Per cent

COMMENTS: Best assay.
REFERENCE: Assessment Report 10211.

CAPSULE GEOLOGY

The Butte-IXL property is situated near the confluence of Aggie and Cadwallader creeks, approximately 12 km southwest of Bralorne, in the Cadwallader Range of the Pacific Ranges. In this portion of the Coast Crystalline belt, extensive splays and cross faults of the Bralorne fault system are spatially related to numerous mineral occurrences in the Bridge River mining camp.

The Butte-IXL quartz veins are developed at or near the contact of tightly folded Noel Formation argillites and Pioneer Formation volcanics, both members of the Upper Triassic Cadwallader Group. Slivers of serpentinized ultramafics of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafics) are structurally interlayered with Cadwallader Group rocks and outcrop in northwest trending belts.

CAPSULE GEOLOGY

Between 1933 and 1934, a 245-metre adit and a 50-metre shaft were developed on two quartz veins within sediments and volcanics. The crosscut adit in Noel and Pioneer sediments and volcanics intersected a quartz vein up to 0.6 metre in width, which is heavily mineralized in places with pyrrhotite, chalcopyrite, sphalerite and lesser amounts of pyrite and galena. Another quartz vein on the surface, 60 metres southwest from the portal, strikes northwest and dips steeply southwest within the enclosing greenstones and is reported to carry little mineralization, but some gold values. Brecciated quartz vein material examined from the dump contained less than one per cent disseminated chalcopyrite and sphalerite which tend to be concentrated along the borders of altered greenstone clasts within bull quartz. A sample of this material assayed 0.4 per cent zinc, 0.02 per cent lead and 0.12 gram per tonne gold (Assessment Report 10211).

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EMPR EXPL 1983-307, 1986-C250, 1987-C208, 1988-C121
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A
GSC MEM *213, p. 100
GSC OF 482
GSC SUM RPT 1932, Part A, pp. 57-71

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE012**

NATIONAL MINERAL INVENTORY:

NAME(S): **RED HAWK**, DAN TUCKER (L.5806,5802), GOLDSTREAM
JANA, BUTTE

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 43 10 N
LONGITUDE: 122 40 40 W
ELEVATION: 1660 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5618676
EASTING: 522746

LOCATION ACCURACY: Within 500M

COMMENTS: Location of central adit on former Red Hawk claims (Memoir 213).
Showing extends northwest onto the Dan Tucker Crown grants (Lots 5806
and 5802). See 092JNE166.

COMMODITIES: Gold Talc

MINERALS

SIGNIFICANT: Pyrite Talc
ASSOCIATED: Quartz Calcite Ankerite
ALTERATION: Chlorite Limonite
ALTERATION TYPE: Chloritic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins M07 Ultramafic-hosted talc-magnetite
SHAPE: Tabular
DIMENSION: Metres STRIKE/DIP: 135/ TREND/PLUNGE:
COMMENTS: Series of irregularly northwest trending quartz veins dip steeply
southwest along a 2.1-metre wide, sheared diorite-greenstone contact.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	Bralorne Igneous Complex
Paleozoic			President Ultramafics
Paleozoic			

LITHOLOGY: Greenstone
Diorite
Gabbro
Serpentinite
Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1933

COMMODITY: Gold

GRADE: 0.3400 Grams per tonne

REFERENCE: E.J. Lee, 1933 (Property File).

CAPSULE GEOLOGY

The Red Hawk quartz vein is located southwest of Bralorne on the south side of Cadwallader Creek. In this portion of the Coast Crystalline belt, extensive splays and cross faults of the Bralorne fault system are spatially related to numerous mineral occurrences of the Bridge River mining camp.

Greenstones and andesite of the Upper Triassic Pioneer Formation, Cadwallader Group, are faulted against diorite of the Permian Bralorne Igneous Complex. The contact is intruded and crosscut by serpentinite of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex) and several albitite (altered rhyolite?) dykes. Abundant lenticular quartz veins with minor calcite and ankerite occur in all rock types, except serpentinite.

The main zone of interest trends northwest for a distance of

CAPSULE GEOLOGY

1200 metres on to the Dan Tucker claims (092JNE166). The zone is a 2.1-metre wide, steep southwest dipping shear zone along a greenstone-diorite contact. The shear contains numerous irregular quartz veins, oriented in all directions, and minor pyrite. Associated gold values, reported by E.J. Lees in 1933, range from trace to 0.34 grams per tonne gold (Property File). Recent work has failed to locate more intense mineralization.

The first claims were staked in 1931 and taken over by Red Hawk Gold Mines Limited in 1932. Development consisted of 5 short exploratory tunnels, a number of open cuts and pits and a shaft to test the mineralization. By 1935 the property was dormant. It was re-examined in 1987 and 1988 by Armeno Resources Inc. (optioned from Trans Atlantic Resources Inc. to earn 50 per cent interest) as part of a large regional exploration program.

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EMPR PF (*Reports by H.H. Yuill, E.J. Lee, N. Humphreys, 1933; Prospectus, Red Hawk Gold Mines Limited, 1933)
GSC MAP 431A
GSC MEM *213, p. 108
GSC OF 482
GSC SUM RPT 1932, Part A, p. 57-71

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE013**

NATIONAL MINERAL INVENTORY: 092J10 Au2

NAME(S): **BRAMOOSE** PERIDOT

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 25 N
LONGITUDE: 122 39 50 W
ELEVATION: 1365 Metres

NORTHING: 5619144
EASTING: 523725

LOCATION ACCURACY: Within 500M

COMMENTS: On northeast side of Cadwallader Creek near the mouth of Piebiter Creek.

COMMODITIES: Copper Gold Limestone

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Calcite
ASSOCIATED: Calcite Quartz
ALTERATION: Epidote Garnet Diopside Wollastonite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Skarn Sedimentary Industrial Min.
TYPE: K01 Cu skarn R09 Limestone
SHAPE: Regular
DIMENSION: STRIKE/DIP: 100/75S TREND/PLUNGE:
COMMENTS: Attitude of 1-metre wide limestone bed.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Cretaceous-Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton

LITHOLOGY: Limestone
Chert
Argillite
Skarn
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River Cadwallader
METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE: Hornfels

CAPSULE GEOLOGY

A limestone bed, about a metre wide, strikes northwest and dips steeply south within cherty argillites of the Mississippian to Jurassic Bridge River Complex (Group). The limestone is altered to an epidote-garnet skarn with pyrrhotite and chalcopyrite mineralization, near the contact with granodiorite or quartz diorite of the Cretaceous to Tertiary Bendor pluton. Fine seams of calcite and quartz within the argillites are also sparingly mineralized with pyrrhotite. Trace gold assays are reported. Diopside and wollastonite also occur as alteration products in the limestone. The limestone bed is itself of high quality and extends to the south where an outcrop near Piebiter Creek was analysed (refer to 092JNE121).

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by J. Stevenson, 1947; Geology map of Bramoose prospect)
GSC MAP 431A
GSC MEM 130, pp. 68,69
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/18

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE013**

MINFILE NUMBER: **092JNE014**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROYAL (L.5650)**, JANA

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 42 00 N
LONGITUDE: 122 38 50 W
ELEVATION: 1460 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5616306
EASTING: 525012

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Royal adit. North of Standard Creek, east of confluence with Cadwallader Creek.

COMMODITIES: Tungsten Molybdenum Copper Zinc Gold
Silver

MINERALS

SIGNIFICANT: Pyrite Scheelite Molybdenite Chalcopyrite Sphalerite

Pyrrhotite
COMMENTS: Scheelite in 2 millimetre long euhedral grains.

ASSOCIATED: Quartz Carbonate

ALTERATION: Limonite Quartz Silicific'n

ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia
CLASSIFICATION: Hydrothermal Epigenetic Porphyry
TYPE: L08 Porphyry Mo (Climax-type)

DIMENSION: STRIKE/DIP: 060/60N TREND/PLUNGE:

COMMENTS: Quartz vein 13.6 metres from portal. Attitude of quartz in shear & tension gashes strikes 060 degrees and dips 60 degrees north.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Permian			Bralorne Igneous Complex
Paleozoic			President Ultramafics

LITHOLOGY: Hornblende Diorite
Argillite
Greenstone
Chert
Siltstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River Cadwallader

METAMORPHIC TYPE: Contact Regional RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Drill Core
COMMODITY
Gold GRADE
0.0600 Grams per tonne
COMMENTS: Best assay from DDH R87-01.
REFERENCE: Assessment Report 16725.

ORE ZONE: ADIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1980
SAMPLE TYPE: Chip
COMMODITY
Silver GRADE
2.5800 Grams per tonne
Gold 0.0800 Grams per tonne
Tungsten 0.2500 Per cent
COMMENTS: Sample 10 metres in from portal.
REFERENCE: Assessment Report 8878.

CAPSULE GEOLOGY

The Royal property is situated between Royal and Standard

CAPSULE GEOLOGY

creeks, just east of their confluence with Cadwallader Creek, on the west facing slopes of Royal Peak. In this part of the Coast Crystalline belt, splays and cross faults of the Bralorne fault system are spatially related to numerous mineral occurrences in the Bridge River mining camp.

The Royal prospect is underlain by a sequence of quartzites, argillites, quartz-biotite schists and minor volcanics of the Mississippian to Jurassic Bridge River Complex (Group). A pod of Permian Bralorne Igneous Complex hornblende diorite has been tectonically emplaced into Bridge River metasediments in the vicinity of the Royal adit, driven in the early 1930's. A northwest trending, structurally emplaced sliver of serpentized ultramafics of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex) is located just west of the diorite.

The Royal zone is an oval area of hydrothermal alteration, 1 kilometre in diameter, with numerous quartz veins up to 1.5 metres wide hosted in hornblende diorite and surrounding metasediments. Two stages of quartz veins are variably mineralized with pyrite, molybdenite, scheelite, chalcopyrite and sphalerite. Host rocks are silicified. Diamond drilling in 1986 revealed anomalously high values for molybdenum, copper, zinc, silver, nickel and arsenic, erratically distributed throughout drill hole 86-15. The presence of a molybdenum porphyry system, with peripheral or telescoped lead-zinc-precious metal mineralization is suggested. Diamond drill results have been disappointing, with a best assay to date of 0.06 gram per tonne gold (Assessment Report 16725). A sample taken in 1980 assayed 2.58 grams per tonne silver, 0.08-grams per tonne gold and 0.25 per cent tungsten (Assessment Report 8878).

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Sketch location map of adit and drillholes)
GSC MAP 431A
GSC MEM *213, p. 126
GSC OF 482
GSC SUM RPT *1932, Part A, pp. 57-71
GSC pp. 73-17
GCNL #5, 1981; #8, 1983
PR REL July 28, 1987
Wright, R.L. (1974): The Geology of the Pioneer Ultramafite, Unpublished M.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/01

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

of the Bralorne Igneous Complex and President Ultrabasics (serpentinite and peridotite) (correlative with the Permian and older Shulaps Ultramafic Complex) intrude the metavolcanics and metasediments.

The Standard crosscut adit encountered networks of quartz veining with pyritized wallrock (chert and argillite). A zone of intensely sheared and talc-altered serpentinite contains northwest striking quartz-carbonate veins (listwanites) carrying pyrite, arsenopyrite, abundant mariposite and occasional realgar, molybdenite and argentiferous galena. Visible gold was reported by Cairnes (1937) from a quartz vein exposed in a trench located to the southeast of the adit (Geological Survey of Canada Memoir 213). Clothier (1933) reported grades averaging 4.29 grams per tonne gold over 21 metres within the adit (Minister of Mines Annual Report 1933, page 273). Rehabilitation of the adit, combined with further drifting, crosscutting and diamond drilling, has not extended the gold zone. Historically reported values were based on word of mouth and have never been confirmed by the authors of government reports (Assessment Report 16725).

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
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GSC MAP 431A
GSC MEM *213, p. 127
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GSC P 73-17
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V STOCKWATCH Aug. 18, Oct. 22, 1987
WWW http://www.infomine.com/index/properties/STANDARD_CREEK.html

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/04

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE016**

NATIONAL MINERAL INVENTORY: 092J15 Au15

NAME(S): **SHORT O'BACON (L.7509)**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 40 N
LONGITUDE: 122 50 30 W
ELEVATION: 1130 Metres

NORTHING: 5625125
EASTING: 511163

LOCATION ACCURACY: Within 500M

COMMENTS: The main vein is just south of Carl Creek, 1 kilometre southeast of its junction with the Hurley River. The location is the adit portal.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Gold
ASSOCIATED: Quartz
ALTERATION: Mariposite Pyrite Talc Sericite Chlorite
ALTERATION TYPE: Sericitic Pyrite Quartz-Carb.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: STRIKE/DIP: 155/70E TREND/PLUNGE:
COMMENTS: The "Carl Creek vein" is 30 centimetres wide, strikes northeast, dips steeply east. Dips vary from 70 to 80 degrees east.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	President Ultramafics
Paleozoic			Bralorne Igneous Complex
Permian			

LITHOLOGY: Greenstone
Serpentinite
Chert
Argillite
Quartz Vein

HOSTROCK COMMENTS: Greenstone complexly related to Bralorne diorite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Cadwallader
GRADE:

CAPSULE GEOLOGY

The main Short O'Bacon showing is hosted in greenstone, probably of the Upper Triassic Pioneer Formation (Cadwallader Group) near its contact with serpentinite of the President Ultramafic (correlative with the Permian and older Shulaps Ultramafic Complex). Mississippian to Jurassic Bridge River Complex (Group) cherts and argillites and Upper Triassic Noel Formation (Cadwallader Group) argillites are exposed to the east and south.

The vein is in a shear zone striking northwest and dipping steeply, containing quartz and sheared greenstone with quartz stringers. The vein has been followed for 150 metres and a possible extension may parallel the serpentine belt along Carl Creek. A possible convergence with the BRJ 1 vein (092JNE136) located to the southwest has been suggested.

Directly east of the Short O'Bacon adit is another vein on the east bank of Carl Creek in a wide shear zone, also in Pioneer greenstone near the serpentinite contact. The rock is talcose and highly sheared and contains abundant mariposite and cubic pyrite. A 30-centimetre quartz vein is sparingly mineralized with pyrite and a little gold. About 200 metres west of the Short O'Bacon vein is another greenstone-hosted vein-shear striking southeast and dipping steeply west. Sericite, chlorite and iron sulphides occur in approximately 1.2 metres of quartz. Surficial gold values are reported to be low.

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EMPR PF (J.S. Stevenson, 1947, unpub. thesis; Composite Map
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Limited, 1945; Report on Pinebrayle-B.R.J. Area by J.S. Steveson,
1952)
GSC MAP 430A; 431A
GSC MEM 130; 213, p. 92
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/18

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE017**

NATIONAL MINERAL INVENTORY: 092J15 Au14

NAME(S): **GRULL (L.2378)**, GRULL - WIHKSNE, SILVER KING,
SILVER BASIN

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 47 50 N
LONGITUDE: 122 49 55 W
ELEVATION: 930 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5627289
EASTING: 511844

LOCATION ACCURACY: Within 500M

COMMENTS: Five hundred metres northeast of the confluence of Cadwallader Creek
and Hurley River. The location is for the main workings (3 portals)
on the claim.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Gold

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

COMMENTS: Veins 0.7 to 1.0 metre wide are nearly continuous for 75 metres, also
a few discontinuous bodies are present. The veins strike south to
southwest and dip 75 degrees east.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Argillite
Chert
Albitite
Porphyry Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

Thinly bedded chert and argillite of the Mississippian to
Jurassic Bridge River Complex (Group) are cut by an albitite porphyry
dyke which is traversed by quartz stringers. Several fissures dip
steeply west and strike southwest across the sediments. Quartz veins
varying from several centimetres to one metre in width are nearly
continuous within the fissures for about 75 metres. Shorter
discontinuous quartz bodies also occur. Sulphides in the veins,
pyrite and arsenopyrite, are scanty, carrying mostly low gold values
with local highs. Minor free gold is associated with arsenopyrite.

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S.F. Kelly, 1977)
GSC MAP 430A; 431A
GSC MEM 130, p. 94; *213, p. 105
GSC OF 482
GSC P 43-15; 73-17
GSC SUM RPT 1915, p. 80
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/18

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE017**

MINFILE NUMBER: **092JNE018**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUCCESS (L.3093)**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 50 N
LONGITUDE: 122 49 20 W
ELEVATION: 1204 Metres

NORTHING: 5627291
EASTING: 512529

LOCATION ACCURACY: Within 500M

COMMENTS: About 1 kilometre east of the confluence of Cadwallader Creek and Hurley River. Location is of the adit portal.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Irregular
COMMENTS: Veins strike north and east.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Hurley	

LITHOLOGY: Breccia
Argillite
Chert

HOSTROCK COMMENTS: Coarse breccia containing argillite, chert and igneous fragments.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Methow

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Success showing is a discontinuous gold-bearing quartz vein filling north and east trending fault fissures which intersect coarse breccia (argillite, chert and igneous fragments) of the Upper Triassic Hurley Formation (Cadwallader Group). Greenstones of the Pioneer Formation (Cadwallader Group) are also reported in the vicinity. A 46-metre adit had been driven by 1933.

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GSC OF 482
GSC P 43-15; 73-17
GSC SUM RPT 1915, p. 80 (Map)
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DATE CODED: 1985/07/24
DATE REVISED: 1992/01/09

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE019**

NATIONAL MINERAL INVENTORY: 092J15 Au20

NAME(S): **WATERLOO, SUMMIT**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 35 N
LONGITUDE: 122 45 30 W
ELEVATION: 2320 Metres

NORTHING: 5626840
EASTING: 517033

LOCATION ACCURACY: Within 1 KM

COMMENTS: Showings on ridge north of Mount Fergusson, about 4 kilometres north-east of Bralorne townsite.

COMMODITIES: Gold Silver Antimony Zinc Copper

MINERALS

SIGNIFICANT: Arsenopyrite Sphalerite Bornite Pyrite Stibnite
Boulangerite Pyrrhotite

COMMENTS: Stibnite and boulangerite occur together, separate from others.

ASSOCIATED: Quartz

ALTERATION: Chalcedony Stibiconite Epidote Calcite

COMMENTS: Chalcedony and stibiconite associated with stibnite and boulangerite, epidote, calcite and chalcedony in andesites.

ALTERATION TYPE: Carbonate Epidote Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic Epithermal

TYPE: I01 Au-quartz veins

DIMENSION: STRIKE/DIP: 071/61N

TREND/PLUNGE:

COMMENTS: Two sets of veins: main strikes 071 & dips 61 degrees north in shear. Southwest of main 3 veins strike 050 & dip 50 degrees northwest.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Bendor Pluton
Cretaceous-Tertiary			

LITHOLOGY: Andesite
Chert
Quartzite
Diorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP: Pre-mineralization

GRADE: Hornfels

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1984

SAMPLE TYPE: Chip

COMMODITY

GRADE

COMMODITY	GRADE	UNIT
Silver	12.7000	Grams per tonne
Gold	10.0000	Grams per tonne
Antimony	8.0000	Per cent

COMMENTS: Average of three samples across 1.3 metres. Stibnite value from nearby (ie. separate) vein.

REFERENCE: Assessment Report 13323.

CAPSULE GEOLOGY

North trending and steeply dipping andesites, cherts and quartzites of the Mississippian to Jurassic Bridge River Complex (Group) are faulted against diorite and quartz diorite of the Cretaceous to Tertiary Bendor pluton. All rocks are hornfelsed and the volcanics are sheared and chloritized, with pronounced oxidation around the showings. Other hydrothermal alteration products in the area include epidote, calcite and chalcedony.

The main workings (adit and opencuts) have explored a 1.3-metre quartz vein following a shear in brecciated andesite, trending

CAPSULE GEOLOGY

northeast and dipping north. The centre of the vein is limey and contains disseminated arsenopyrite and sphalerite enveloped by arsenopyrite, sphalerite, pyrite and bornite on the vein edges. Assay values over 1.3 metres average 10 grams per tonne gold, 12.7 grams per tonne silver, and graded as high as 11 grams per tonne gold and 45.4 grams per tonne silver over 10 centimetres (Assessment Report 13323).

Southwest of the main showing (on the same ridge), three 10 to 15-centimetre veins are reported 3 metres apart. They show "epithermal" characteristics having cockscomb, semi-massive stibnite and boulangerite in chalcedony and stibiconite. Trace gold and silver values are reported with up to 8 per cent antimony.

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DATE CODED: 1985/07/24
DATE REVISED: 1991/09/18

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE020**

NATIONAL MINERAL INVENTORY: 092J15 Au16

NAME(S): **CALIFORNIA (L.3173)**, JEWESS, BRX

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 49 10 N
LONGITUDE: 122 49 30 W
ELEVATION: 1040 Metres

NORTHING: 5629761
EASTING: 512327

LOCATION ACCURACY: Within 500M

COMMENTS: The location is of the main portal, about 4 kilometres south of Goldbridge in cliffs of steep Hurley River canyon.

COMMODITIES: Gold Silver Copper Zinc Tungsten

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Gold Chalcopyrite Sphalerite

ASSOCIATED: Quartz Mariposite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic Pegmatite

TYPE: I01 Au-quartz veins

DIMENSION: STRIKE/DIP: 120/45N

COMMENTS: Vein splits. Dips vary from 45 to 60 degrees northeast. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	Bralorne Igneous Complex
Permian			

LITHOLOGY: Greenstone
Augite Diorite
Quartz Breccia
Sodic Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

METAMORPHIC TYPE: Contact

Bridge River

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE:

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1977

SAMPLE TYPE: Chip

COMMODITY

GRADE

Gold 27.4300 Grams per tonne

COMMENTS: Over 2.13 metres (the width of the quartz vein) grades are "sporadically" good.

REFERENCE: Sherwin Kelly, 1977 - Property File.

CAPSULE GEOLOGY

The "California shear" is traced for 750 metres along the contact between Permian Bralorne Complex augite-diorite and Upper Triassic Pioneer Formation, Cadwallader Group, greenstones. Tertiary sodic granite dykes intruding the greenstone also host mineralized veins. The shear zone, trending northwest and dipping northeast, splits and converges again at depth, with an average width of 2 metres.

Quartz breccia, crushed diorite, and greenstone and minor quartz lenses host pyrite, arsenopyrite, mariposite and a little free gold as disseminations and streaks. The best gold values are reported from where sulphides are impregnated in the sheared country rock. Deeper, on the hanging wall of a quartz vein, a massive chalcopyrite-pyrite zone is reported. A branch vein on the hanging wall, striking north-south is 15 centimetres wide and well mineralized with pyrite, arsenopyrite, chalcopyrite, sphalerite and free gold. Scheelite occurs sporadically, in 60 to 90 metre sections along the contact of greenstone and a sodic-granite dyke. Samples from the sixth level of the underground workings assayed 27.43 grams gold per tonne over 2.1

CAPSULE GEOLOGY

metres (reported as discontinuous) (Property File - Kelly, 1977). The "California shear" extends northwest, into the "Whynot" workings (see 092JNE021). Where the two shear-veins intersect, high gold values are reported.

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EMPR PF (Reports by I.B. Joralemon, 1933 and *Sherwin Kelly, 1977;
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IPDM 1985 Dec
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge
River Mining Camp, Unpublished B.Sc. Thesis, University of British
Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/18

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE021**

NATIONAL MINERAL INVENTORY: 092J15 Au6

NAME(S): **WHY NOT (L.649)**, BRIDGE RIVER CONSOLIDATED, ELEPHANT (L.444)

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 49 25 N

LONGITUDE: 122 49 40 W

ELEVATION: 1070 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Three and one half kilometres south of Goldbridge at the top of the steep Hurley River canyon.

UTM ZONE: 10 (NAD 83)

NORTHING: 5630224

EASTING: 512131

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite

COMMENTS: "Poorly mineralized."

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Epigenetic Hydrothermal

TYPE: I01 Au-quartz veins

DIMENSION:

COMMENTS: Vein "frays out" when serpentine rock encountered.

STRIKE/DIP: 125/30N

TREND/PLUNGE:

Dips vary from 30 to 40 degrees northeast.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Permian
Paleozoic

Bralorne Igneous Complex
President Ultramafics

LITHOLOGY: Augite Diorite
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Why Not shear trends northwest and dips northeast in altered quartzose diorite of the Permian Bralorne Igneous Complex before fraying out in sheared altered serpentinite of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex). The en echelon veins are composed of white, massive to crystalline and sometimes drusy quartz, a few centimetres to a few metres wide. Rock inclusions occur between split veins. The quartz veins are well defined and poorly mineralized with only local gold values. The Why Not workings coalesce with the California workings to the southeast (see 092JNE020). Where the two veins intersect, high gold values are reported.

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MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 537
REPORT: RGEN0100

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GCNL #27, 1986

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE022**

NATIONAL MINERAL INVENTORY: 092J15 Au16

NAME(S): **GLORIA KITTY (L.3171)**, BRX, NATIONAL,
ARIZONA

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 49 50 N
LONGITUDE: 122 49 35 W
ELEVATION: 1040 Metres

UTM ZONE: 10 (NAD 83)
NORTHING: 5630997
EASTING: 512227

LOCATION ACCURACY: Within 500M

COMMENTS: Two and one half kilometres south of Goldbridge, just east of the
Bralorne road.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
COMMENTS: Two sets of fissures bearing veins strike west and northwest
(northwest is stronger set). Marked ribbon structure in places.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	
Permian			Bralorne Igneous Complex
Cretaceous-Tertiary			Bendor Pluton

LITHOLOGY: Greenstone
Diorite
Quartz Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: GRADE:

CAPSULE GEOLOGY

Greenstone of the Upper Triassic Pioneer Formation is closely associated with Permian Bralorne Igneous Complex diorite. The rocks interfinger complexly and are often undifferentiated. Both are intruded by dykes or small stocks of quartz albitite, probably related to the Cretaceous to Tertiary Bendor Pluton.

Two sets of vein-bearing fissures occur, a west set and a stronger northwest set. The quartz veins are small, approximately 30 centimetres wide, discontinuous, usually sparsely mineralized with pyrite and arsenopyrite and carry gold values. In places, sulphides are heavily concentrated for several centimetres. A second tunnel was driven on a 77-centimetre wide quartz vein in an albitite dyke. This vein contains wallrock and is ribboned in places with abundant pyrite.

In 1938, a total of 4343 tonnes of ore was mined and 467 grams of gold and 311 grams of silver were recovered.

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EMPR INDEX 3-188
EMPR Inspections Branch File #202554
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EMPR PF (Reports by S. Kelly, 1977 and J.S. Stevenson (Map))
GSC MAP 430A
GSC MEM *130, p. 89; *213, pp. 94,97

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 539
REPORT: RGEN0100

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River Mining Camp, Unpublished B.Sc. Thesis, University of British
Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE023**

NATIONAL MINERAL INVENTORY: 092J15 Au6

NAME(S): **FORTY THIEVES (L.443)**, BRIDGE RIVER CONSOLIDATED, URAL (L.442),
ELEPHANT (L.444)

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 49 55 N
LONGITUDE: 122 50 15 W
ELEVATION: 780 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location is Ural portal, 2 kilometres south of Goldbridge in steep
canyon of Hurley River.

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5631149
EASTING: 511444

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Tetrahedrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Azurite Ankerite Sericite Chlorite Malachite
ALTERATION TYPE: Sericitic Oxidation Propylitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: STRIKE/DIP: 135/45W TREND/PLUNGE:
COMMENTS: Dips vary from 45 to 60 degrees west. Vein is an average of 1 metre
wide and has a strike length of 900 metres.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Permian	Cadwallader	Pioneer	Bralorne Igneous Complex

LITHOLOGY: Andesite
Augite Diorite
Greenstone
Dacite Porphyry Dike
Serpentinite
Peridotite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader
METAMORPHIC TYPE: Contact RELATIONSHIP: GRADE:

CAPSULE GEOLOGY

The Forty Thieves vein is hosted in andesites of the Upper Triassic Pioneer Formation, Cadwallader Group which is closely associated with diorite of the Permian Bralorne Igneous Complex; the rocks interfinger complexly and the diorite is suggested to be replacing the andesite rather than intruding it. The indistinct boundary between andesite-diorite is intruded by a Late Tertiary (?) 30 metre wide dacite porphyry dyke. The western boundary of the andesite-diorite is a west-dipping fault contact with a narrow belt of serpentinized peridotite of the President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex). The vein follows the main structural trend, striking northwest and dipping northeast along a 600-metre long fissure (reverse fault) through the andesite, diorite and dacite porphyry. The vein consists of long lenses of quartz with a width of about 1 metre averaged along the shear. Pyrite, tetrahedrite and lesser chalcopyrite occur as streaks and disseminations, with malachite and azurite staining. In other parts, cloudy grey quartz surrounds altered wallrock inclusions containing stockworks of ankerite, sericite, chlorite and pyrite. The average assay obtained from vein quartz assays less than 0.34 gram gold per tonne, with similar values for wallrock samples (Minister of Mines Annual Report 1946, page 111). The Forty Thieves vein is reported to be very similar to the Arizona vein located nearby (see 092JNE024).

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55; 1945-86; *1946-106; 1959-28; 1960-23; 1961-27
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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
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GSC MAP 430A
GSC MEM 130, p. 84; 213, pp. 88,91
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GSC P 43-15,;73-17
GSC SUM RPT 1915, p. 82
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #25, 1985

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE024**

NATIONAL MINERAL INVENTORY: 092J15 Au16

NAME(S): **ARIZONA (L.3176)**, BRX

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 50 30 N

LONGITUDE: 122 50 25 W

ELEVATION: 760 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5632230

EASTING: 511246

LOCATION ACCURACY: Within 500M

COMMENTS: One kilometre south of Goldbridge in steep Hurley River canyon.

COMMODITIES: Gold Silver Tungsten Lead Zinc
Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcocopyrite Gold

Chalcocite Molybdenite Scheelite

ASSOCIATED: Quartz

Calcite

ALTERATION: Hematite

Malachite

Azurite

Silica

ALTERATION TYPE: Oxidation

Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

DIMENSION: Metres

STRIKE/DIP: 102 Intrusion-related Au pyrrhotite veins
130/55N TREND/PLUNGE:

COMMENTS: Vein varies from 15 to 60 centimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic

Permian

Paleozoic

GROUP

Cadwallader

FORMATION

Pioneer

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex

President Ultramafics

LITHOLOGY: Augite Diorite
Sodic Granite Dike
Sodic Granite
Greenstone
Pyroxenite
Peridotite
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: SHEAR

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1979

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

1.5000

Grams per tonne

Tungsten

0.3400

Per cent

COMMENTS: From 2.7-metre wide shear zone at granite/diorite contact. Assay over 1.2 metres. An aggregate of grab samples averaged 0.34 per cent WO3.

REFERENCE: Assessment Report 7949.

CAPSULE GEOLOGY

The Arizona workings follow two main fissures formed in augite diorite of the Bralorne Igneous Complex and greenstone of the Upper Triassic Pioneer Formation, which are intruded by dykes and stock-like masses of soda granite and granodiorite. To the east, Pioneer greenstone is in fault contact with serpentized President Ultramafics (correlative with the Permian and older Shulaps Ultramafic Complex) consisting of pyroxenite and peridotite.

The North adit follows a fault fissure trending west and dipping north which contains a well-defined, ribboned quartz-pyrite-calcite vein up to 0.6 metre wide. Sulphides present are pyrite, galena, sphalerite and chalcocopyrite with gold and silver values. The South

CAPSULE GEOLOGY

or main adit follows a north dipping fissure which trends generally northwest, then curves to west-northwest. Discontinuous, 1-metre wide, drusy quartz veins contain chalcocite, sphalerite, pyrite, chalcopyrite and some free gold with copper carbonate and iron oxide staining. A 30-metre wide soda granite dyke forms the footwall of the shear; the hanging wall is in augite diorite except at the southeast end of the main level where massive greenstone is encountered. Molybdenite is reported as grains and streaks in the vein and as disseminations in the soda granite.

A quartz scheelite vein in the soda granite, just below the diorite contact is rich in tungsten (0.25 per cent WO₃) and low in gold (0.72 gram per tonne) whereas siliceous sheared veins in the diorite above the granite contact are higher in gold (4.1 grams per tonne) and lower in tungsten (0.02 per cent WO₃). A sample from a 2.7-metre wide shear assayed 1.5 grams per tonne gold and 0.34 per cent tungsten (Assessment Report 7949). Generally, gold values range from 0.34 to 1.71 grams per tonne and increase to 25.7 grams per tonne where fissures intersect (Kelly, 1977 - Property File).

The Arizona mine produced for one year only in 1938, yielding 425 grams of gold and 28 grams of silver from 4342 tonnes of ore (see Gloria Kitty - 092JNE022).

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- EMPR Inspections Branch File #202554
- EMPR OF 1987-11; 1988-3; 1989-4; 1990-10, 1999-3
- EMPR PF (Reports by *S.F. Kelly, 1977; Map by J.S. Stevenson; Plan of underground workings)
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DATE CODED: 1985/07/24
DATE REVISED: 1991/09/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE025**

NATIONAL MINERAL INVENTORY: 092J15 Au16

NAME(S): **GOLDEN GATE** BRX

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 50 45 N
LONGITUDE: 122 50 15 W
ELEVATION: 778 Metres

NORTHING: 5632694
EASTING: 511440

LOCATION ACCURACY: Within 500M

COMMENTS: One kilometre south of Goldbridge in the Hurley River valley.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Arsenopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

COMMENTS: Shear strikes from 160 degrees and dips to the northeast.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Permian

Bralorne Igneous Complex

LITHOLOGY: Augite Diorite
Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Golden Gate workings explore a wide shear zone trending northwest and dipping northeast along the contact between augite diorite of the Permian Bralorne Igneous Complex and a Tertiary quartz albitite dyke. The shear has slickensides on the margins, and contains small concentrations of needle-like prisms of arsenopyrite with associated gold values.

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EMPR PF (Reports by S.F. Kelly, 1977 and 1979; Map by J.S. Stevenson)
GSC MAP 430A
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CJES 1987, Vol. 24, pp. 2279-2291
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DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE026**

NATIONAL MINERAL INVENTORY:

NAME(S): **HAYLMORE PLACER**, HURLEY RIVER

STATUS: Past Producer Open Pit

MINING DIVISION: Lillooet

REGIONS:

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 50 50 N

LONGITUDE: 122 50 30 W

ELEVATION: 670 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: At the mouth of the Hurley River. Principal production from eastern rim.

UTM ZONE: 10 (NAD 83)

NORTHING: 5632848

EASTING: 511147

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Gold

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Residual Placer

TYPE: C01 Surficial placers

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Paleozoic

Quaternary

President Ultramafics

Glacial/Fluvial Gravels

LITHOLOGY: Gravel
Serpentinite

HOSTROCK COMMENTS: President Ultramafics underlie gravels in stream.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

At the mouth of the Hurley River, from the eastern rim, "over 1000 ounces" (over 31,000 grams) of coarse gold is reported to have been recovered from serpentine bedrock or high rim (banks?) gravels. The largest nugget weighed 404 grams, but more common were 31 to 150 gram nuggets (Geological Survey of Canada Memoir 213).

The area is underlain by the President Ultramafics which are correlative with the Permian and older Shulaps Ultramafic Complex.

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GSC OF 482
CIM Canadian Geology Journal, Vol. 1, No. 1, pp. 21-30

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE027**

NATIONAL MINERAL INVENTORY:

NAME(S): **PILOT**, YPRES

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 52 30 N

LONGITUDE: 122 53 25 W

ELEVATION: 914 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5635930

EASTING: 507720

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of property is 3.5 kilometres northwest of Gun Lake. Pilot mine is on north shore of Gun Lake at mouth of Walker Creek.

COMMODITIES: Gold

Silver

MINERALS

SIGNIFICANT: Gold Silver Arsenopyrite

ASSOCIATED: Quartz

ALTERATION: Kaolinite Sericite Silica

ALTERATION TYPE: Sericitic Silicific'n Argillic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Irregular

MODIFIER: Sheared

DIMENSION:

STRIKE/DIP: 155/55E

TREND/PLUNGE:

COMMENTS: Deposit occurs as well defined quartz veins following a series of subparallel fault fissures with variable dips and, in part, as less regular quartz deposits in a shear zone.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Cretaceous-Tertiary

Bendor Pluton

LITHOLOGY: Quartz Diorite

Quartzite

Siliceous Argillite

Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Contact

RELATIONSHIP: Pre-mineralization

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

56.9000

Grams per tonne

Gold

11.1000

Grams per tonne

COMMENTS: Three hundred metres northwest of Pilot mine, over 0.9 metres.

REFERENCE: Assessment Report 11877.

CAPSULE GEOLOGY

Hornblende-biotite quartz diorite, a basic phase of the Cretaceous to Tertiary Bendor pluton, occurs in a northwest trending tongue across the property, intruding Mississippian to Jurassic Bridge River Complex (Group) sediments. Quartzite, silicified argillite and foliated tuffs are metamorphosed to lower greenschist grade. The "Pilot shear" hosting the deposit trends southeast at the contact between silicified tuff of the Upper Triassic Noel Formation, Cadwallader Group quartz diorite and Bridge River sediments.

The 3-metre wide shear contains a number of narrow, parallel quartz veins altered with sericite and kaolinite. Gold and silver values are continuous along this structure for 300 metres northwest. A chip sample taken over 0.9 metre assayed 11.1 grams per tonne gold and 56.9 grams per tonne silver (Assessment Report 11877). Another similar vein is reported to occur along the same trend about 150

CAPSULE GEOLOGY

metres west of the Pilot shear. A well maintained portal to the Pilot vein is located near the mouth of Walker Creek on Gun Lake.

BIBLIOGRAPHY

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
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N MINER Oct 6, Dec 8, 1986; Aug. 22, 1985
NW PROSP Sept/Oct 1986, p. 5
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WIN Jan. 1987
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/14

CODED BY: GSB
REVISED BY: BNC

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE028**

NATIONAL MINERAL INVENTORY:

NAME(S): **SHULAP COPPER**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 57 10 N
LONGITUDE: 122 35 40 W
ELEVATION: 1920 Metres

NORTHING: 5644652
EASTING: 528486

LOCATION ACCURACY: Within 1 KM

COMMENTS: Three kilometers east-southeast of Liza Lake (Property File - Report by Lapex Syndicate, 1963)

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Bornite Chalcopyrite Malachite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Permian

GROUP

Cadwallader

FORMATION

Pioneer

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex

LITHOLOGY: Greenstone
Gabbro

HOSTROCK COMMENTS: Host rocks are a greenstone-gabbro complex, informally referred to as the East Liza Igneous Suite (Fieldwork 1989, pages 375-386).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Shulaps copper prospect is located 3 kilometres east-southeast of Liza Lake. Bornite, chalcopyrite and malachite occur as disseminations and stockwork within greenstone and gabbro (informally known as the East Liza Igneous Suite) now tentatively correlated with the Permian Bralorne Igneous Complex, but formerly assigned to the Upper Triassic Cadwallader Group, Pioneer Formation. The showing is exposed over a length of 2.4 metres and a width of 0.4 metre, and is estimated to contain 3 per cent copper (Property File - Lapex Syndicate report, 1963).

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EMPR PF (*Report for Lapex Syndicate, 1963)
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/18

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE029**

NATIONAL MINERAL INVENTORY: 092J15 Au1

NAME(S): **CONGRESS**, CONGRESS MINE

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 53 38 N
LONGITUDE: 122 46 58 W
ELEVATION: 749 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5638048
EASTING: 515277

LOCATION ACCURACY: Within 500M

COMMENTS: Level 31 portal (Assessment Report 14251).

COMMODITIES: Gold Silver Copper Antimony Mercury
Zinc

MINERALS

SIGNIFICANT: Stibnite Pyrite Marcasite Kermesite Cinnabar

Sphalerite

COMMENTS: Rare sphalerite

ASSOCIATED: Quartz

ALTERATION: Ankerite Carbonate Quartz

ALTERATION TYPE: Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Mesothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations
DIMENSION: 550 Metres
COMMENTS: Shear zone

Replacement

I01

Au-quartz veins

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Unnamed/Unknown Informal
Tertiary			

ISOTOPIC AGE: 67.1 Ma

DATING METHOD: Whole Rock

MATERIAL DATED: Whole rock

LITHOLOGY: Greenstone
Chert
Argillite
Feldspar Porphyry Dike

HOSTROCK COMMENTS: Radiometric age date of dyke from Fieldwork 1985.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: CONGRESS

REPORT ON: Y

CATEGORY: Indicated
QUANTITY: 146000 Tonnes

YEAR: 1996

COMMODITY: Gold GRADE: 6.8500 Grams per tonne

COMMENTS: Probable reserves.

REFERENCE: George Cross News Letter No.56 (March 19), 1996.

CAPSULE GEOLOGY

The Congress mine is underlain by volcanics, cherts and argillites of the Mississippian-Jurassic Bridge River Complex (Group), which are intruded by various Tertiary dykes. Mineralization is in the form of three steeply plunging ore shoots in a northeast trending shear zone traced for 550 metres along strike. The en echelon shear veins splay off the main system in a "herringbone" fashion and fissures widen with a marked decrease in ore grade when passing from greenstones into cherty sediments. Where steeply dipping, northwest striking feldspar porphyry dykes cut the sheared greenstone. A radiometric date of 67.1 Ma +/- 2.2 Ma has been obtained from one of these dykes (Fieldwork 1985).

Veins several centimetres wide, contain massive stibnite and

CAPSULE GEOLOGY

fine-grained pyrite and marcasite on the borders with kermesite. Cinnabar is found in fractures and as impregnations between fractures. Wallrock is altered for up to 5 metres on either side of the shear with ankerite, carbonate and dense to finely crystalline quartz. Pyrite, arsenopyrite and rare sphalerite occur as very fine-grained aggregates in the streaked and mottled greenstone. Gold is more closely associated with replacement deposits in the wallrock than with the massive stibnite veins.

Immediately north of the Congress workings, the Congress Extension vein is believed to be a continuation of the main footwall vein. Other showings in the immediate vicinity include the Contact vein about 200 metres east of the Congress mine which is the stibnite-quartz vein referred to in old reports as the North Star-University vein. The vein, although high in antimony, yields low gold values and is narrow and discontinuous.

The Congress mine, consisting of 3 kilometres of underground workings, was operational in 1937 producing 1306 grams of silver, 2582 grams of gold and 38 kilograms of copper from a total of 943 tonnes mined.

Indicated and inferred reserves contained in 2 zones defined by underground sampling and surface and underground drilling are 192,638 tonnes grading 9.24 grams per tonne gold and 1.38 grams per tonne silver (Mine Development Assessment Process - Congress Project, Stage I Report, September 1988).

Probable reserves at Congress are 146,000 tonnes grading 6.85 grams per tonne gold (George Cross News Letter No.56 (March 19), 1996).

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IPDM Nov. 1985
NW PROSP Jan/Feb, 1989
N MINER Sept., 1984; Oct., 1988; Mar.9, 1987; Mar.1,6, 1989
PR REL Jan.29, 1985 (Veronex)
W MINER May 1962, pp. 44,45
WWW <http://www.infomine.com/>

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/19

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: Y

CAPSULE GEOLOGY

(092JNE124) and Two Bob (092JNE150).

The property was first staked by J.C. Patterson in 1900. The original claim group, comprising the Wayside, Argon, Radium, Helium and Queen City Fraction, was sold to O. Fergusson and C. Walker six years later. By 1910 three adits had been driven on the Wayside vein system and a sample of pyrite-enriched quartz ore was shipped by pack-train for testing. D.C. Paxton then acquired the property and a small mill was in operation by 1915. From 1917 to 1922 there are no reports of activity and the property passed to Messrs. Fergusson and Walker in 1924. This led to a program of sampling and geological mapping and the property was transferred to Wayside Consolidated Gold Mines Limited in 1928. By 1933 complete camp facilities were installed, including a hydro-electric plant; the Wayside vein system had been exposed on five levels in 300 metres of tunnelling over a vertical interval of 150 metres. Production in 1915, and between 1934 and 1937, totalled 39,109 tonnes of ore, yielding 166.1 kilograms of gold and 26.1 kilograms of silver.

From the end of operations in 1937 until recently only a small amount of exploration work was done, mainly by the L.A.P. Mining Company Limited (1946 to 1953) and the Ace Mining Company Limited (after 1959). In 1947 the mine was dewatered and rehabilitated with the addition of hoisting equipment 900 tonnes of ore were produced for metallurgical testing. A fire at the mine in 1953 curtailed further curtailed further development. In 1971 Dawson Range Mines Limited (Carpenter Lake Resources Limited) acquired the property and in the following four years completed a number of programs including geological and geophysical surveys, underground rehabilitation, sampling, and diamond drilling (2344 metres in 1980). This led to the discovery of the 'New Discovery' and 'Commodore' zones and the '3T' vein. In 1984 the property was optioned to Amazon Petroleum Corporation Limited and many targets were retested by diamond drilling (1829 metres in 1984; 2438 metres in 1985). Early in 1987, Amazon Petroleum Inc. and Carpenter Lake Resources Limited optioned the property to Chevron Canada Resources Limited. This began renewed exploration activity on the property based on similarities in geological setting, morphology and mineralization between the Wayside mine and the gold-quartz veins at Bralorne, 15 kilometres to the south. A total of 21 diamond drill-holes (3006 metres) were completed in Chevron's 1987-88 program to locate faulted segments of the Wayside veins and similar mineralization. Work in 1992 by Wayside Gold Mines Ltd. and Brigadier Resources Limited, in a 50/50 partnership relationship, included dewatering of the lower levels of the Wayside mine and resampling the main vein and Notman vein systems. They drilled 31 underground holes in 1993. Wayside Gold Mines Ltd. became International Wayside Gold Mines Ltd. in 1994.

The Wayside mine consists of auriferous mesothermal veins within a wedge-shaped block of Permian Bralorne Igneous Complex augite diorite, in fault contact with ribbon chert and greenstone of the Mississippian-Jurassic Bridge River Complex (Group), and greenstone and argillite turbidites of the Upper Triassic Cadwallader Group. The augite diorite is intersected by a network of narrow quartz-carbonate stringers and massive aplite dykes up to 10 metres wide.

The deposits occur in a strong northwest trending, northeast dipping shear zone which is followed for over 300 metres through the highly schistose, sheeted and altered rock. The quartz veins are massive, milky, ribboned and brecciated, average less than 45 centimetres wide, and pinch and swell with chloritic partings. Most occur in narrow shears on the footwall side of the main shear zone although one (the Notman or Hanging Wall vein) occurs on the hanging wall side. Much of the main shear contains little or no mineralization, and the higher grade material is found in branch fissures off the main shear and at shear junctions. The sulphides include pyrite, arsenopyrite, chalcopyrite, telluride (probably sylvanite), galena, tetrahedrite, sphalerite, stibnite and native gold. Alteration minerals are siderite, mariposite, talc, sericite and chlorite.

The main shear is reported to have less than 1.7 grams per tonne as an average gold assay but relatively recent drilling beneath the ninth level reports 163.2 grams of gold per tonne across a 1.6-metre intersection (Assessment Report 13605).

Drill indicated reserves at the Wayside mine (likely New Discovery, 092JNE121) are 283,950 tonnes grading 3.43 grams per tonne gold, 2 per cent copper and 2.5 per cent zinc (Canadian Mines Handbook 1989-90, page 36; 1992-93, page 69). An additional 98,000 tonnes is reported under the old workings. A 1500-metre drill program was in progress during the remaining months of 1991.

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DATE CODED: 1985/07/24
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CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE031**

NATIONAL MINERAL INVENTORY:

NAME(S): **VERITAS (L.2355-2357)**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 50 30 N
LONGITUDE: 122 54 55 W
ELEVATION: 930 Metres

NORTHING: 5632221
EASTING: 505965

LOCATION ACCURACY: Within 500M

COMMENTS: Six kilometres north of Goldbridge, on north side of Downtown Lake, west of Lajoie Lake.

COMMODITIES: Gold Lead Copper

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Galena Chalcopyrite Tetrahedrite

ASSOCIATED: Quartz Calcite Mariposite

COMMENTS: White massive quartz, minor calcite with drusy cavities.

ALTERATION: Ankerite Mariposite

COMMENTS: Ankerite in wall rocks, mariposite scattered in wall rocks and vein.

ALTERATION TYPE: Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Irregular

MODIFIER: Sheared

DIMENSION: 300 x 80 x 1 Metres

STRIKE/DIP: 120/64N

TREND/PLUNGE:

COMMENTS: Vein(s) are irregular lenses and stockworks; splitting off into smaller veinlets. Dip ranges from 64 to 90 degrees.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			President Ultramafics
Permian			Bralorne Igneous Complex

LITHOLOGY: Diorite
Serpentinized Peridotite
Andesite
Quartzite
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1986

SAMPLE TYPE: Chip

COMMODITY

GRADE

Gold

1.3000

Grams per tonne

COMMENTS: Over 30 centimetres.

REFERENCE: Assessment Report 15209.

CAPSULE GEOLOGY

The country rock is Upper Triassic Cadwallader Group altered andesitic volcanics and quartzites and argillites of the Mississippian to Jurassic Bridge River Complex (Group). These are intruded by a northwest trending belt of micro-diorite (augite diorite) of the Permian Bralorne Complex containing a dyke-like mass of Permian and older serpentinized peridotite (President Ultramafics) corellative with the Shulaps Ultramafic Complex.

The mineralized veins occur in the micro-diorite as irregular lenses in shear zones subparallel the diorite-serpentine contact. The veins, varying from a few centimetres to 1 metre in width, are massive white quartz with minor calcite and drusy cavities.

CAPSULE GEOLOGY

Sulphides (pyrite, arsenopyrite and minor chalcopyrite and galena) are sparsely disseminated; the footwall contains massive pyrite and free gold. The wall rocks contain much carbonate and ankerite alteration, both the vein and wallrocks contain scattered mariposite. In diorite, west of the developed adit area, pendants of volcanics with serpentine host stockworks of calcite, ankerite and quartz veins containing pyrite, chalcopyrite and arsenopyrite.

The workings consist of 4 adits starting near lake level and continue northwest following 120 degrees vein trend up the hillside and all within the Ranger claim (Crown Grant #2355). The lower two adits are accessible (although in poor condition), the upper two are collapsed. A chip sample over 0.3 metre from Adit #4 assayed 1.3 grams per tonne gold (Assessment Report 15209).

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GSC P 43-15; 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/08/19

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE032**

NATIONAL MINERAL INVENTORY: 092J15 As1

NAME(S): **LUCKY JEM**, BOB

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 25 N
LONGITUDE: 122 53 50 W
ELEVATION: 2010 Metres

NORTHING: 5648749
EASTING: 507213

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the No. 1 adit at the head of Eldorado Creek; the No. 2 adit is 65 metres west (Assessment Report 9062).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite

COMMENTS: Soils show 800 metres long zone anomalous in gold, silver, antimony, copper and lead.

ASSOCIATED: Quartz

MINERALIZATION AGE: Paleocene

ISOTOPIC AGE: 57.7 +/- 2.0 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Muscovite

DEPOSIT

CHARACTER: Vein Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

COMMENTS: Several veins sometimes coalescing. The No. 1 vein strikes north and has a dip of 15 degrees east; the No. 2 veins also strike north. Isotopic Age came from a vein selvage (Economic Geology 84-8-1989).

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Paleocene	Cadwallader	Hurley	Eldorado Pluton

LITHOLOGY: Granite
Quartz Diorite
Granodiorite
Siltstone
Mudstone
Sandstone
Arkose
Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: OPENCUT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

17.1000

Grams per tonne

Gold

34.2800

Grams per tonne

COMMENTS: Over 50 centimetre vein.

REFERENCE: George Cross News Letter No.202, 1983.

CAPSULE GEOLOGY

The Lucky Jem polymetallic vein prospect is located at the headwaters of Eldorado Creek, 4 kilometers southwest of Eldorado Mountain. The prospect is mostly within or adjacent to dykes and apophyses of quartz diorite, granite and granodiorite, related to the Eldorado pluton of Paleocene age. Mineralization also occurs in country rocks of siltstone, sandstone, mudstone and arkose of the Upper Triassic Hurley Formation, Cadwallader Group. The sedimentary rocks are partly schistose. Stringers of arsenopyrite and pyrite are within decomposed and oxidized igneous and sedimentary host rocks; this material, when panned, will yield fine gold.

The prospect has been explored by two adits. The No. 1 adit vein, in a well defined fissure in granite, strikes northwest for 11

CAPSULE GEOLOGY

metres, dipping shallowly east. A wide (30 to 90 centimetres) oxidized zone carries arsenopyrite streaks surrounded by several centimetres of talcose gouge grading into decomposed granite. Assays ran from 34.28 grams per tonne gold and 17.1 grams per tonne silver over 50 centimetres to 0.68 grams per tonne gold and 34.28 grams per tonne silver over 50 to 90 centimetres (George Cross News Letter No.202, 1983). Sixty-five metres west of the No. 1 adit another drift, the No. 2 adit, follows two 30 to 60 centimetre subparallel, north striking veins through decomposed granite. The veins carry arsenopyrite and pyrite mixed with quartz and oxidation products. Assays across 127 centimetres at the junction of two veins graded up to 1.37 grams per tonne gold and 48 grams per tonne silver (George Cross News Letter No.202, 1983). A best assay of 43.88 grams per tonne gold and 89.14 grams per tonne silver is reported from an open cut southwest of No. 2 adit (Assessment Report 9062).

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DATE CODED: 1985/07/24
DATE REVISED: 1991/02/18

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE033**

NATIONAL MINERAL INVENTORY: 092J15 Au21

NAME(S): **RELIANCE**, NEMO 7 (L.7657), FERGUSSON,
TURNER, RIVER, DIPLOMAT,
SENATOR, IMPERIAL, MERIT,
CROWN, EAGLE

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 52 58 N
LONGITUDE: 122 46 26 W
ELEVATION: 1000 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5636814
EASTING: 515906

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of the Nemo 7 claim (Lot 7657), 4 kilometres northeast of
Goldbridge, on the south side of Carpenter Lake (Assessment Report
14019).

COMMODITIES: Gold Antimony Silver

MINERALS

SIGNIFICANT: Stibnite Arsenopyrite Sulphide
ASSOCIATED: Calcite Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations 101 Au-quartz veins
SHAPE: Bladed
MODIFIER: Faulted Sheared

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation

LITHOLOGY: Greenstone
Chert

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
COMMENTS: On the western boundary of the Intermontane tectonic belt.

INVENTORY

ORE ZONE: RELIANCE REPORT ON: Y
CATEGORY: Combined YEAR: 1988
QUANTITY: 410916 Tonnes
COMMODITY GRADE
Gold 5.9600 Grams per tonne
COMMENTS: Proven and drill indicated reserves.
REFERENCE: George Cross News Letter April 14, 1988.

CAPSULE GEOLOGY

At the Reliance occurrence, the mineralization occurs in north-east striking, steeply northwest dipping shear zones in green and purple volcanics and cherts of the Mississippian to Jurassic Bridge River Complex (Group). The old Reliance adit at 1100 metres elevation on Lot 7657, exposes a 2-metre wide oxidized shear zone in purple volcanics; an opencut above the adit contains 2.5 to 5-centimetre wide stibnite stringers in a calcite gangue. The Fergusson adit at 1023 metres elevation on Lot 7657, strikes east-northeast in sheared greenstone and contains a 15-centimetre wide stibnite vein in calcite and quartz with finely disseminated sulphides. A fault (also mineralized) cuts the shear after which the stibnite runs out in stringers. A 4-tonne shipment of the "richest" antimony ore is believed to have been made from the Fergusson adit in 1915, grading \$10.40 gold. It is reported to have come from where a narrow tongue of diorite porphyry briefly follows the fault. The Turner adit (830 metres elevation on Lot 7659) strikes southeast following a 1.5-metre wide shear in silicified and pyritized green and purple volcanics containing stibnite veinlets and

CAPSULE GEOLOGY

disseminated sulphides. The River adit (663 metres elevation on Lot 7660) is a crosscut to the Turner adit.

The Royal shear zone hosts six showings: Diplomat, Senator, Imperial, Merit, Crown and Eagle, with each showing probably representing a pipe. The Imperial showing is the upper part of a mineralized pipe, an ellipse 30 metres long by 15 metres thick at the widest point, which plunges in a westerly direction from 50 to 70 degrees. The Crown showing, located 300 metres south and 130 metres higher in elevation than the Imperial showing, is the location of a second pipe with the same geology and erratic values as the upper part of the Imperial pipe.

Proven and drill indicated reserves are 410,916 tonnes grading 5.96 grams per tonne gold (George Cross News Letter April 14, 1988).

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V STOCKWATCH Apr.13, Jun.8, Jul.14,30, Aug.27, Oct.1,15,26, Nov.3,25, 1987; Jan.7, 1988
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CODED BY: GSB
REVISED BY: BNC

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE034**

NATIONAL MINERAL INVENTORY:

NAME(S): **REX MOUNTAIN, SPOKANE, COLUMBIA (L.1123),
SHAMROCK (L.1123), SUSAN**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 52 15 N
LONGITUDE: 122 22 30 W
ELEVATION: 2130 Metres

NORTHING: 5635647
EASTING: 543977

LOCATION ACCURACY: Within 500M

COMMENTS: Location of adit on Lot 1123 (Assessment Report 15612).

COMMODITIES: Gold Silver Copper Bismuth Tungsten

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Pyrrhotite Telluride Molybdenite
Arsenopyrite Bornite Gold

COMMENTS: Make up 1 to 3 per cent of vein.

ASSOCIATED: Quartz Chlorite Calcite

ALTERATION: Chlorite Sericite

ALTERATION TYPE: Chloritic Sericitic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I02 Intrusion-related Au pyrrhotite veins

SHAPE: Irregular

DIMENSION: 700 x 250 x 2 Metres STRIKE/DIP: 105/60N

TREND/PLUNGE:

COMMENTS: Ribbon structure of vein. Vein varies from 1.2 to 2.2 metres wide and can be traced for 700 metres over a vertical range of 250 metres.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Eocene
Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal
Rexmount Porphyry

LITHOLOGY: Granodiorite
Porphyritic Dacite
Foliated Serpentinite
Hornblende Feldspar Porphyry

HOSTROCK COMMENTS: The main host is the Eocene Mission Ridge pluton.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

Bridge River

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE:

INVENTORY

ORE ZONE: TOTAL

REPORT ON: Y

CATEGORY: Indicated
QUANTITY: 189453 Tonnes

YEAR: 1996

COMMODITY

Gold

Copper

GRADE

8.5700

0.9200

Grams per tonne

Per cent

REFERENCE: Explore B.C. Program 95/96 - M23.

CAPSULE GEOLOGY

The Spokane polymetallic vein prospect, located at the headwaters of Holbrook Creek, 4.5 kilometers southeast of Rex Peak, is within granodiorite of the Eocene Mission Ridge pluton and Tertiary hornblende feldspar porphyry (porphyritic dacite), known as the Rexmount Porphyry. These rocks intrude serpentinite melange of the Permian and older Shulaps Ultramafic Complex and phyllite of the Mississippian to Jurassic Bridge River Complex (Group).

The principal vein is predominantly massive white quartz, but is locally ribboned to vuggy. The ribbons are partings of chlorite and some wallrock blebs and disseminations of pyrite, chalcopyrite and pyrrhotite. Rare tellurides, molybdenite, arsenopyrite, bornite and native gold constitute 1 to 3 per cent of the vein material.

CAPSULE GEOLOGY

Sulphide distribution is erratic. The distribution of gold closely follows that of copper and is commonly accompanied by anomalous silver, tungsten and bismuth. The vein is approximately 2 metres thick and is traceable for at least 700 metres, over 250 metres elevation. Sericite and chloritic alteration haloes are common adjacent to vein margins, sometimes a few metres thick. In places, granodiorite that is distant from veins is weakly mineralized with chalcopyrite, pyrrhotite, pyrite and molybdenite, and suggests a porphyry copper-molybdenum environment. Host granodiorite is foliated adjacent to the vein, whereas porphyritic dacite is fresh and in places cuts both vein and foliated granodiorite. This indicates that the vein is younger than the granodiorite but older than the porphyritic dacite.

In 1983, a 1.8-metre chip sample taken across a quartz vein assayed 6.97 grams per tonne gold and 42.20 grams per tonne silver (Assessment Report 11502). In 1988, a drill hole intersection with true of 6.3 metres assayed 13.714 grams per tonne gold (Assessment Report 19041).

The main mineralized zone consists of a copper-gold quartz vein system which is continuous over a strike length of about 700 metres and tested to an average depth of about 75 metres. A resource estimate of 190,000 tonnes containing 8.57 grams per tonne gold and 0.92 per cent copper has been defined within the main mineralized zone (George Cross News Letter No.28 (February 8), 1996).

Work done in 1995 by Spokane Resources Ltd., with support from the Explore B.C. Program, consisted of geological and geochemical surveys and 2531 metres of diamond drilling in 20 holes which further defined East and West zone mineralization. This work also allowed a combined resource estimate of 189,453 tonnes grading 8.57 grams per tonne gold and 0.92 per cent copper, evenly split between the two zones. The East zone averages 7.95 grams per tonne gold and 1.06 per cent copper; the West zone averages 9.18 grams per tonne gold and 0.77 per cent copper (Explore B.C. Program 95/96 - M23).

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EMPR ASS RPT *11502, 13182, 15612, 15948, *19041, 19260, 24282
EMPR EXPL 1984-236
EMPR Explore B.C. Program 95/96 - M23 (ASS RPT 24282)
EMPR FIELDWORK 1987, pp. 93-104; 1989, pp. 45-51, pp. 53-72, pp. 279-285; 1990, pp. 75-83
EMPR OF 1990-10
EMPR PF (Statement of Material Charge, MacNeill International Industries, 1990)
GSC MEM 130, p. 98
GSC P 77-2. p. 16
GSC SUM RPT 1912, p. 207
GCNL #43,#193,#201,#217,#221, 1989; #28(Feb.8), 1996
V STOCKWATCH Aug. 23, Sept. 12, 1989

DATE CODED: 1985/07/24
DATE REVISED: 1996/10/29

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE035**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUMMIT**, FRINGE BENEFIT, SHADOW OF DOUBT,
GLAMOROUS GOLD, PAYMUCK, PS,
TOMKEN, KEN, SNOBALL,
HOG, CAT, QUINTO,
Q, LMT, UMT

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:
LATITUDE: 50 52 23 N
LONGITUDE: 122 31 39 W
ELEVATION: 1420 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Old "LMT" and "UMT" workings on Marshall Ridge between Marshall and Tyaughton creeks.

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5635815
EASTING: 533245

COMMODITIES: Gold Silver Zinc Lead Copper
 Antimony

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Arsenopyrite Sphalerite Galena
 Bornite Stibnite
COMMENTS: Minor bornite and stibnite.
ASSOCIATED: Quartz Chalcedony
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
COMMENTS: A 10 to 50 centimetre by 30 metre vein strikes northeast and dips 35 degrees.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Argillite
Quartzite
Quartz Vein
Andesite
Chert
Phyllite
Limestone
Mafic Dike
Greenstone

HOSTROCK COMMENTS: At sheared contact between andesites and argillites. Volcanics may be part of the Pioneer Formation (Upper Triassic Cadwallader Group).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River Cadwallader
METAMORPHIC TYPE: Regional RELATIONSHIP:
PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE:

INVENTORY

ORE ZONE: LMT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1981
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 26.0000 Grams per tonne
Gold 7.6000 Grams per tonne
Zinc 5.5400 Per cent
COMMENTS: Average assay over 30 metre strike length.
REFERENCE: Assessment Report 10695.

INVENTORY

ORE ZONE: UMT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1981

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver	39.8000	Grams per tonne
Gold	4.9000	Grams per tonne
Zinc	8.4500	Per cent

COMMENTS: Best assays from mineralized pods in shear zone.

REFERENCE: Assessment Report 10695.

CAPSULE GEOLOGY

The Summit polymetallic vein prospect is located 5.8 kilometres northwest of the confluence of Marshall Creek with Bridge River. The prospect is within phyllites, argillites, chert and minor recrystallized limestone and andesitic greenstone of the Mississippian to Jurassic Bridge River Complex (Group). Sulphides are concentrated along the sheared contact between foliated phyllite and argillite and massive andesite.

The LMT zone strikes northeast with a shallow dip and ranges from 10 to 50 centimetres wide along a 30 metre strike length, and is offset by numerous post-mineralization normal faults. The massive sulphides include pyrite, pyrrhotite, arsenopyrite, sphalerite and galena with minor bornite and stibnite, set in chalcidonic quartz. Average assays are 7.6 grams gold per tonne, 26 grams silver per tonne and 5.54 per cent zinc (Assessment Report 10695).

The UMT zone is considered an extension of the LMT shear, at 36 metres higher elevation. Samples from the UMT zone assayed 4.9 grams gold per tonne, 39.8 grams silver per tonne and 8.45 per cent zinc (Assessment Report 10695).

Older reports on the Summit property describe a 2.5-metre basic dyke crossed by arsenopyrite and pyrite bearing quartz stringers, cutting north across quartzites, argillites and chloritic volcanics. Further up the hill is reported workings exploring an irregular 5-centimetre quartz vein containing in places 40 centimetres of solid pyrite, arsenopyrite, galena and sphalerite. Refer also to the Marshall Creek occurrence (092JNE085).

BIBLIOGRAPHY

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EMPR EXPL 1988-C122
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-104; 1987, pp. 115-130; 1989, pp. 45-51, pp. 53-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Prospectus, Gold Summit Mines Ltd. 1989; Property description by B.N. Church, 1989; Sampson, C.J. (1987): Report on Geology and Exploration Potential on Summit Claims)
GSC MAP 1882, 431A
GSC MEM 130, p. 99; 213
GSC OF 482
GSC P 43-15; 73-17
GSC SUM RPT 1912-207; 1915-83; 1932, Part A pp. 57-71
CJES 1987, Vol. 24, pp. 2279-2291
Sebert, C.F.B. (1987) Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc Thesis, University of British Columbia
WWW http://www.infomine.com/index/properties/SUMMIT_PROPERTY_-_2.html

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE036**

NATIONAL MINERAL INVENTORY:

NAME(S): **EMPIRE, CHOPPER, PEAK,**
JUNE, MAC, TOM,
PAT

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 42 30 N
LONGITUDE: 122 36 17 W
ELEVATION: 2150 Metres

NORTHING: 5617248
EASTING: 528009

LOCATION ACCURACY: Within 500M
COMMENTS: Location is upper adit.

COMMODITIES: Silver Gold Copper Zinc Lead

MINERALS

SIGNIFICANT: Tetrahedrite Galena Chalcopyrite Pyrite Sphalerite
Stibnite Arsenopyrite
ASSOCIATED: Quartz Calcite Anglesite
ALTERATION: Quartz Limonite Goethite Hematite Malachite
Azurite Chrysocolla
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic Epithermal
TYPE: I01 Au-quartz veins
SHAPE: Tabular
DIMENSION: 2400 x 3 Metres STRIKE/DIP: 135/60S TREND/PLUNGE:
COMMENTS: The vein is 1 to 4.2 metres wide & has a strike length of 300 metres.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation
Paleozoic President Ultramafics
Cretaceous-Tertiary Bendor Pluton

LITHOLOGY: Quartz Biotite Schist
Porphyroblastic Spotted Schist
Serpentinite
Chloritic Mafic Volcanic
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE:

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 254.7000 Grams per tonne
COMMENTS: Diamond-drill hole C87-02 cut 4.7 metres grading 254.7 grams per tonne silver.
REFERENCE: Assessment Report 16725.

CAPSULE GEOLOGY

The Chopper vein is situated between Mount McGillivray and Royal Peak, approximately 17 kilometres southeast of Bralorne, in the Pacific Ranges. The area is underlain by metamorphosed metasediments of the Mississippian to Jurassic Bridge River Complex (Group).

The Chopper vein is a strongly mineralized, northwesterly trending structure intermittently exposed for over 2400 metres and ranging from 1 to 5 metres in width. The vein is hosted in quartz-biotite schist and volcanics, containing localized lenses of limestone and dolomite. "Spotted" schist and Permian and older serpentinite of the President Ultramafics lie adjacent to the vein. Diorite to quartz-diorite Cretaceous to Tertiary Bendor plutons

CAPSULE GEOLOGY

outcrop to the north of the vein.
Mineralization within the vein consists of tetrahedrite, galena, chalcopyrite and pyrite with minor amounts of calcite, sphalerite, stibnite and arsenopyrite in a vuggy, white quartz matrix. Alteration products of malachite, azurite, chrysocolla, realgar, orpiment, hematite, goethite and limonite also occur. A best assay of 254.7 grams per tonne silver was obtained from one of three drill holes collared in 1987 (Assessment Report 8657).

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EMPR ASS RPT *8657, 15341, 16595, *16725
EMPR EXPL 1986-C255; 1987-C208; 1988-C121
EMPR FIELDWORK 1975, pp. 35-39; 1986, pp. 23-29; 1987, pp. 93-104
GSC MAP 431A
GSC MEM 130, pp. 38,54,*96; 213
GSC OF 482
GSC P 73-17
GSC SUM RPT 1932, Part A, pp. 57-71
GCNL #203(Oct.22), 1987; #4,#18, 1990

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE037**

NATIONAL MINERAL INVENTORY:

NAME(S): **WIDE WEST**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 24 N
LONGITUDE: 122 51 14 W
ELEVATION: 1460 Metres

NORTHING: 5648723
EASTING: 510255

LOCATION ACCURACY: Within 500M

COMMENTS: On north slope at headwaters of Taylor Creek.

COMMODITIES: Gold Copper

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn Igneous-contact

TYPE: K04 Au skarn

COMMENTS: Vein, 6 metres wide, strikes 040 degrees and is steeply dipping.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Unnamed/Unknown Formation	
Paleocene			Eldorado Pluton

ISOTOPIC AGE: 63.7 +/- 2.2 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

LITHOLOGY: Limestone
Slate
Skarn
Greenstone
Diorite
Granodiorite

HOSTROCK COMMENTS: Age determination from Economic Geology 84-8 (Leitch et al., 1989).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

TERRANE: Cadwallader

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Syn-mineralization

GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1913

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

7.0000

Grams per tonne

COMMENTS: An approximate value.

REFERENCE: Minister of Mines Annual Report 1913, page 268.

CAPSULE GEOLOGY

The Wide West skarn showing is located 2.5 kilometers south of Eldorado mountain, near the head of Taylor Creek. The showing is within Mississippian to Jurassic Bridge River Complex (Group) crystalline limestone, interbedded with slate and greenstone and adjacent to diorite of the nearby Paleocene Eldorado pluton. Mineralization consists of pyrrhotite and minor chalcopyrite as solid masses, making up 60 per cent of the rock. The limestone body is six metres wide and is partly to wholly replaced with sulphides. A sample taken in 1913 assayed about 7 grams per tonne gold (Minister of Mines Annual Report 1913, page 268).

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EMPR ASS RPT 9062, 11231, 13666, 14812
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-104, pp. 115-130; 1988, pp. 131-143; 1989, pp. 45-51, pp. 53

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 567
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR OF 1987-11; 1989-4
GSC MAP 1610; 1882
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17; 77-2 (Sample GSC 76-49)
GSC SUM RPT 1912, p. 206
CJES 1987, Vol. 24, pp. 2279-2291
ECON GEOL *84-8-1989, pp. 2226-2236 (Leitch et al., 1989)

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE038**

NATIONAL MINERAL INVENTORY:

NAME(S): **BEN**, AXE

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 41 30 N
LONGITUDE: 122 29 45 W
ELEVATION: 2100 Metres

NORTHING: 5615659
EASTING: 535611

LOCATION ACCURACY: Within 500M

COMMENTS: North branch off Connell Creek, southeast of Whitecap Mountain.

COMMODITIES: Gold Molybdenum

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Molybdenite
ASSOCIATED: Quartz Mariposite
ALTERATION: Limonite Carbonate Talc
ALTERATION TYPE: Quartz-Carb. Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
COMMENTS: The veins vary from 2 to 20 centimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Permian-Triassic
Upper Triassic
Cretaceous-Tertiary
Paleozoic

GROUP

Bridge River
Cadwallader

FORMATION

Undefined Formation
Pioneer

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton
President Ultramafics

LITHOLOGY: Meta Argillite
Quartzite
Meta Sediment/Sedimentary
Diorite
Granodiorite
Greenstone
Peridotite
Serpentinite
Listwanite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

Cadwallader
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

CAPSULE GEOLOGY

Foliated greenstone of the Upper Triassic Pioneer Formation Cadwallader Group is faulted against metasediments consisting of meta-argillite and quartzite of the Mississippian to Jurassic Bridge River Complex (Group). Trending north along the faulted contact lies a sinuous body of Permian and older serpentinitized peridotite of the President Ultramafics, and diorite and granodiorite of the Cretaceous to Tertiary Bendor pluton.

Narrow, 2 to 20 centimetre wide, vuggy quartz veins trend north-northeast and crosscut all rock types. Disseminated pyrite is common and forms intense gossans in the granodiorite. All veins carry minor amounts of pyrrhotite and molybdenite. Along the north side of the peridotite-serpentinite intrusion, quartz veins carrying mariposite and carbonate-talc alteration occurs.

BIBLIOGRAPHY

EMPR ASS RPT 9259, 9926
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72;
1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)

DATE CODED: 1985/07/24
DATE REVISED: 1991/08/20

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE038**

MINFILE NUMBER: **092JNE039**

NATIONAL MINERAL INVENTORY:

NAME(S): **PRIMROSE**, CONGRESS EXTENSION

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 55 48 N
LONGITUDE: 122 34 55 W
ELEVATION: 1372 Metres

NORTHING: 5642124
EASTING: 529379

LOCATION ACCURACY: Within 500M

COMMENTS: Location of adits on west side of Jim Creek.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
COMMENTS: Only minor sulphide minerals and trace gold.
ASSOCIATED: Quartz
ALTERATION: Ankerite
ALTERATION TYPE: Quartz-Carb. Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
COMMENTS: Two parallel quartz veins strike northwest and are 2 metres wide by 240 metres in length.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Upper Triassic	Cadwallader	Hurley	
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Chert
Argillite
Listwanite
Limestone
Serpentinite
Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

The Congress Extension (Primrose vein) is 0.5 kilometers north of the west end of Marshall Lake. The prospect is within argillite, chert, greenstone and minor limestone of the Mississippian to Jurassic Bridge River Complex (Group) and is adjacent to the Marshall Creek fault zone. The fault zone is intermittently occupied by serpentinite and listwanite, assigned to the Permian and older Shulaps Ultramafic Complex. The fault separates Bridge River rocks to the south from slate and argillite of the Upper Triassic Hurley Formation (Cadwallader Group), to the north.

Two parallel quartz veins, up to 2.0 metres in thickness and 240 metres in length, strike northwest and follow a chert-argillite-listwanite contact. The quartz veins contain minor disseminated pyrite and rare chalcopyrite, with little or no gold.

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EMPR EXPL 1986-C259; 1988-C122
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 1883
GSC MEM 130
GSC SUM RPT 1915, p. 83

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 570
REPORT: RGEN0100

BIBLIOGRAPHY

CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE040**

NATIONAL MINERAL INVENTORY:

NAME(S): **RHODES**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 45 20 N
LONGITUDE: 122 13 30 W
ELEVATION: 1410 Metres

NORTHING: 5622929
EASTING: 554666

LOCATION ACCURACY: Within 1 KM

COMMENTS: One mile east of Mission Pass, on Mission Mountain.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Hydrothermal Skarn
SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Permian-Triassic
Eocene

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Granodiorite
Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact

Bridge River
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1912

COMMODITY

COMMODITY	GRADE	Units
Silver	29.4800	Grams per tonne
Gold	11.6600	Grams per tonne

REFERENCE: Geological Survey of Canada Summary Report 1912, page 207.

CAPSULE GEOLOGY

The Rhodes vein prospect, 0.6 kilometres east of Mission Pass, is at the contact between a body of granodiorite, presumably related to the Eocene Mission Ridge pluton, and sedimentary rocks, presumably of the Mississippian to Jurassic Bridge River Complex (Group).

The prospect consists of pyrite, pyrrhotite and small amounts of chalcopyrite, within the intrusive margin of the granodiorite, and may represent a contact-replacement or skarn type mineralization. No further information is available on this particular showing, although similar mineralization exists at the King (092JNE126). These may in fact overlap the original Rhodes group of claims.

A representative sample assayed 11.66 grams per tonne gold and 29.48 grams per tonne silver (Geological Survey of Canada Summary Report 1912, page 207).

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 77-2, p. 16
GSC SUM RPT *1912, p. 207

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE041**

NATIONAL MINERAL INVENTORY: 092J15 Hg1

NAME(S): **LILLOMER, CHARLOTTE, ANN,
MARION, CONARDON MERCURY**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 57 56 N
LONGITUDE: 122 49 37 W
ELEVATION: 2100 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: At the headwaters of Lillomer Creek.

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5646009
EASTING: 512152

COMMODITIES: Mercury

MINERALS

SIGNIFICANT: Cinnabar Mercury
COMMENTS: Cinnabar is massive and disseminated, Native mercury is "globular".
ASSOCIATED: Quartz Calcite Pyrite
ALTERATION: Calcite
ALTERATION TYPE: Quartz-Carb.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Massive
CLASSIFICATION: Hydrothermal Epigenetic Epithermal
TYPE: I08 Silica-Hg carbonate
COMMENTS: Cinnabar masses are up to 1.25 centimetres thick.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Greenstone
Quartzite
Argillite
Schist
Chert
Limestone
Listwanite
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE:

INVENTORY

ORE ZONE: VEIN
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Mercury
GRADE: 0.4000 Per cent
COMMENTS: Average over 2 metres of quartz-cinnabar veins.
REFERENCE: Minister of Mines Annual Report 1929, page C234.

CAPSULE GEOLOGY

The Lillomer mercury prospect is at the headwaters of North Cinnabar Creek, 5 kilometres west-northwest of the north end of Tyaughton Lake, and adjacent to the informally named Castle Pass fault (Fieldwork 1988, page 115-143).
The showings are hosted in greenstones, argillites, schists, quartzites and cherts of the Mississippian to Jurassic Bridge River Complex (Group). The greenstone occurs as 6-metre thick discontinuous interbeds in the northwest trending metasediments. The metasediments also include occasional narrow bands of red and grey limestone and small bodies of carbonatized serpentinite.
Mineralization is concentrated in fractured greenstone and along the contact between greenstone and the underlying quartzite units. Small veinlets and stringers of calcite, dolomite, quartz and pyrite carry seams (up to 12 millimetres) and disseminations of cinnabar and occasional globules of native mercury. Solid masses of

CAPSULE GEOLOGY

cinnabar assay up to 9.5 per cent mercury and samples taken over 2 metres of branching quartz-cinnabar veins average up to 0.4 per cent mercury (Minister of Mines Annual Report 1929, page 234).

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EMPR EXPL 1977-E170
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; *1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1969-186
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Starr, C.C. (1937): Report on the Lillomer Group, 4 p.; Sketch of Main Workers, Lillomer Group, 1937; Geology of Central Part of Lillomer Group (Scale 1"=200'); *Maps by J.S. Stevenson, 1937))
GSC OF 482
GSC P 43-15
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/20

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE042**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILVERSIDE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 25 N
LONGITUDE: 122 32 40 W
ELEVATION: 1530 Metres

NORTHING: 5626384
EASTING: 532209

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Silverside claim, on Tommy Creek south of Carpenter Lake.

COMMODITIES: Gold Silver Copper Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Galena Bornite Chalcopyrite
Sphalerite
ASSOCIATED: Quartz Calcite
ALTERATION: Limonite Siderite
ALTERATION TYPE: Propylitic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
COMMENTS: Veins have an average width of 1 metre and a strike length of 250 metres and dip 65 degrees west.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation

LITHOLOGY: Argillite
Chert
Sandstone
Limestone
Volcanic
Volcanic Dike
Biotite Meta Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1985
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 48.0000 Grams per tonne
Gold 1.0300 Grams per tonne
Copper 9.6000 Per cent
Zinc 1.8000 Per cent

COMMENTS: Over 25 centimetres.
REFERENCE: Assessment Report 14670.

CAPSULE GEOLOGY

The Silverside area is underlain by Mississippian to Jurassic Bridge River Complex (Group) sediments consisting of cherty and slaty argillites, thinnly bedded cherts, biotite-bearing metasediments, sandstone and minor recrystallized limestone. The strata strike north-northwest with near vertical dips. Volcanics are intercalated with the sediments and dykes cutting the sediments also occur.

The main quartz vein averages less than a metre in width and is exposed for 250 metres, dipping 65 degrees west. The quartz is white or glassy with limonitic staining. The main vein has 3 to 4 per cent pyrite and arsenopyrite, and 2 to 3 per cent galena. A sample assayed 72 grams per tonne silver and 0.3 grams per tonne gold. A second, narrower lens-shaped vein carried maximum sample values of

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 575
REPORT: RGEN0100

CAPSULE GEOLOGY

9.62 per cent copper, 1.77 per cent zinc, 48 grams per tonne silver and 1.03 grams per tonne gold (Assessment Report 14670).

Smaller lenticular quartz-calcite-siderite veins also occur but are unmineralized. Wallrock alteration, limited in extent and poorly developed, consists of calcite and epidote in the volcanic rocks.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Geology map, 1985)
GSC OF 482
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1987/02/06
DATE REVISED: 1991/08/20

CODED BY: MM
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE043**

NATIONAL MINERAL INVENTORY: 092J10 W1

NAME(S): **CHALCO 5 (L.7700)**, LOWER PIEBITER, PIEBITER CREEK,
LIME CREEK

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 43 20 N
LONGITUDE: 122 38 40 W
ELEVATION: 1615 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5618778
EASTING: 525197

LOCATION ACCURACY: Within 500M
COMMENTS: Location is "No.1" showing on Chalco property (Assessment Report 105).

COMMODITIES: Tungsten Copper Gold Silver Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Scheelite Molybdenite
ALTERATION: Epidote Garnet Diopside Quartz Calcite
ALTERATION TYPE: Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive Stratabound
CLASSIFICATION: Skarn
TYPE: K05 W skarn
COMMENTS: Two 0.6 metre wide veins over a 1.5 metres wide zone. Veins parallel schistosity in metasediments which strike northwest and dip steeply south.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation Bendor Pluton
Cretaceous-Tertiary

LITHOLOGY: Limestone
Feldspathic Hornblendite
Argillite
Serpentinite
Granodiorite
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River Plutonic Rocks

INVENTORY

ORE ZONE: LIME CREEK REPORT ON: Y
CATEGORY: Combined YEAR: 1980
QUANTITY: 72500 Tonnes
COMMODITY GRADE
Tungsten 1.0300 Per cent
COMMENTS: Proven and probable reserves based on 1980 drilling results. Grade given was 1.3% WO3; conversion to W using the factor 1.2611.
REFERENCE: Assessment Report 15871.

CAPSULE GEOLOGY

The Lower Piebiter prospect is located along Piebiter Creek just to the east of its confluence with Cadwallader Creek, thirteen kilometres southeast of Bralorne. In this region, extensive splays and crossfaults of the Bralorne fault system are spatially related to numerous mineral occurrences in the Bridge River mining camp.

The prospect area is underlain mainly by feldspathic hornblendite and limestone of the Mississippian to Jurassic Bridge River Complex (Group) in contact with the Cretaceous to Tertiary Bendor pluton to the northwest. A northwest trending belt of serpentinite, correlative with the Permian and older Shulaps Ultramafic Complex, separates hornblendite from Bridge River metasediments to the west.

At least five skarn zones occur in laminated feldspathic hornblendite and crystalline limestone within 300 metres of the Bendor pluton contact. Mineralization consists of chalcopyrite and

CAPSULE GEOLOGY

scheelite with minor molybdenite in quartz-diopside-garnet-epidote skarn. Exploration in 1969 defined a zone up to 50 metres long and three to four metres wide with grades to 6.6 per cent copper, 1.8 per cent tungsten trioxide, 85.71 grams per tonne silver and 0.34 gram per tonne gold (Minister of Mines Annual Report 1948, page 100).

Results of 1980 exploration allowed the calculation of proven and probable reserves of 72,500 tonnes grading 1.3 per cent WO₃ (or 1.03 per cent tungsten); conversion to W using the factor 1.2611 (Assessment Report 15871).

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GSC MAP 431A
GSC MEM 213, p. 88
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE044**

NATIONAL MINERAL INVENTORY: 092J10 W1

NAME(S): **CHALCO 12 (L.7702)**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:
LATITUDE: 50 43 28 N
LONGITUDE: 122 38 22 W
ELEVATION: 1783 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Showings 2-6 on Chalco property, north of Piebiter Creek. See also Chalco 5 (092JNE043).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5619245
EASTING: 525450

COMMODITIES: Tungsten Copper

MINERALS

SIGNIFICANT: Chalcopyrite Scheelite Pyrite Pyrrhotite
ASSOCIATED: Calcite
ALTERATION: Epidote Garnet Diopside Quartz
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform Massive Stratabound Disseminated
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn
COMMENTS: Vein strikes northwest and dips steeply south.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Cretaceous-Tertiary			Bendor Pluton

LITHOLOGY: Limestone
Chert
Argillite
Schist
Granodiorite
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE:

CAPSULE GEOLOGY

Near the western edge of the Cretaceous to Tertiary Bendor pluton, metasediments of the Mississippian to Jurassic Bridge River Complex (Group), including limestone, chert and argillite, are altered to quartz-hornblende schist. Two granodiorite tongues extend west into the northwest striking, steeply dipping sediments. Limestone lenses in the schist are altered to skarn; they contain massive chalcopyrite and smaller masses of pyrite and pyrrhotite with associated blebs of quartz and green diopside. Well crystallized garnet and epidote occur with scattered grains of scheelite throughout the veins.

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EMPR GEM 1969-187
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Claim map by Hat Creek Energy Corp.; Statement of Material Facts, Armeno Resources Inc., 1987; Sheppard, E.P. (1979): Summary Report on the Lime Creek Tungsten Showing, Hat Creek Energy Corp.; Claim map, 1979)
GSC MAP 431A
GSC MEM 213, p. 88
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 579
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT 1932, Part A, pp. 57-71

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE045**

NATIONAL MINERAL INVENTORY: 092J15 Au8

NAME(S): **LUCKY STRIKE (L.6828)**, URAL, VICTORIA,
WHITE AND BELL, WHITE, BELL

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 00 N
LONGITUDE: 122 51 47 W
ELEVATION: 1950 Metres

NORTHING: 5647980
EASTING: 509613

LOCATION ACCURACY: Within 500M

COMMENTS: Number 1 adit on Lot 6828 (Assessment Report 9062). Production data is recorded for a "White and Bell" deposit, apparently located in the vicinity of the Lucky Strike, possibly to the west. No other information is available on the White and Bell.

COMMODITIES: Gold Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Arsenopyrite Sphalerite Jamesonite Pyrite Chalcopyrite
Galena Stibnite

COMMENTS: Arsenopyrite is massively crystalline.

ASSOCIATED: Quartz

ALTERATION: Carbonate Mariposite Serpentine

COMMENTS: Hydrothermally altered serpentinite.

ALTERATION TYPE: Quartz-Carb. Serpentin'zn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

SHAPE: Irregular

MODIFIER: Faulted Sheared

COMMENTS: Irregular pods, lenses, streaks, stringers, disseminations (widespread and in veins and fractures) strike 177 degrees and dip steeply west to vertical.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Unknown

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Ultramafic Intrusions

LITHOLOGY: Serpentinite
Ultramafic
Chert
Listwanite
Latite Porphyry Dike
Homblende Andesite Dike
Greenstone
Sandstone
Phyllite

HOSTROCK COMMENTS: The Ultramafic rocks contain knockers of Bridge River rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

96.0000

Grams per tonne

Gold

25.0000

Grams per tonne

Zinc

4.7000

Per cent

COMMENTS: From adit #1 across 163 centimetres.

REFERENCE: George Cross News Letter No.202, 1983.

CAPSULE GEOLOGY

The Lucky Strike prospect is 3.5 kilometres south southwest of

CAPSULE GEOLOGY

Eldorado Mountain at the headwaters of Taylor Creek. The occurrence is hosted in a north trending band of serpentinite which contains knockers of greenstone, sandstone, and phyllite derived apparently from the Bridge River Complex. This serpentinite melange (Unit s), which may comprise an offset portion of the Shulap melange, is in fault contact to the east, west and south with rocks of the Mississippian to Jurassic Bridge River Complex (Open File 1989-4; Fieldwork 1988, page 119).

The Lucky Strike claim has widespread mineralization occurring in veins and fractures in dykes and in sedimentary and volcanic rocks and serpentinite. The veins are mostly narrow and faulted or feathered and pinched. The veins occur on either side of a felsic dyke at the north trending contact of cherts, to the east, and ultramafics/listwanite, to the west. The mineralized contact zone strikes 177 degrees and dips steeply west to vertical.

There are 2 adits on the property. The #1 adit, in the northwest corner of the claim, explores a nearly vertical, north striking shear zone at the contact between a 3 to 10-metre wide, coarse latite porphyry dyke and altered serpentines and "ferrigenous carbonates." The shear zone continues for 77 metres before being faulted off and contains irregular pods, lenses and streaks of sphalerite, jamesonite, pyrite, chalcopyrite, galena, massively crystalline arsenopyrite and minimal quartz gangue. Assays across 163 centimetres grade 25.0 grams per tonne gold, 96.0 grams per tonne silver and 4.7 per cent zinc (George Cross News Letter No.202, 1983).

The #2 (Coronation) adit located 200 metres southwest of #1 adit is driven south along a vertically dipping mineralized zone of contact between a carbonatized hornblende andesite dyke and surrounding serpentines. A 10-centimetre wide vein of massive arsenopyrite, jamesonite (?), sphalerite, pyrite and minor chalcopyrite occurs at the contact and quartz-carbonate-mariposite assemblages (hydrothermally altered serpentine (listwanite)) contain stringers and disseminations of sulphides for some distance from the dyke.

Samples assay up to 14.5 per cent zinc, 11.2 per cent lead, 31 per cent arsenic and 14.6 per cent antimony (Assessment Report 19686). Stibnite has also been reported.

BIBLIOGRAPHY

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC EC GEOL #4, p. 84
GSC MAP 43-15A; 1610; 1882
GSC P 43-15; 73-17
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PR REL Can America Precious Metals Inc., Feb.12, 1987, Mar.2, 1987
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/06/26

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE046**

NATIONAL MINERAL INVENTORY:

NAME(S): **TYAUGHTON**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 56 25 N
LONGITUDE: 122 41 40 W
ELEVATION: 914 Metres

NORTHING: 5643228
EASTING: 521468

LOCATION ACCURACY: Within 1 KM

COMMENTS: On the north side of Tyaughton Creek, immediately above the confluence
Liza Creek (NTS Map 092J/15).

COMMODITIES: Mercury

MINERALS

SIGNIFICANT: Cinnabar Mercury

COMMENTS: Crystalline cinnabar.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Epithermal

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation

LITHOLOGY: Shale

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Tyaughton mercury showing is located on the north side of Tyaughton Creek immediately above its confluence with Lisa Creek (NTS Map 92J/15). Shale (probably argillite) of the Mississippian to Jurassic Bridge River Complex (Group) is exposed in the creek bank over an area of about three square metres. This outcrop contains about 1.5 per cent mercury as cinnabar while in an adjacent outcrop small specimens of crystalline cinnabar are found.

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EMPR OF 1989-4
GSC GEOLOGY 1975-57
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/20

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE047**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOFFAT, EVA, MOFFAT & WHITE,
MAUDE (?), AVALANCHE, WHITE,
GRIZZLY SHEAR, LOWER CREEK, CANYON,
CREEK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:
LATTITUDE: 50 32 39 N
LONGITUDE: 122 53 35 W
ELEVATION: 1710 Metres
LOCATION ACCURACY: Within 1 KM
COMMENTS: Adit in andesites (Assessment Reports 3654 and 14224).

Underground
MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5599142
EASTING: 507578

COMMODITIES: Copper Lead Zinc Gold Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Bornite Galena Sphalerite
ASSOCIATED: Quartz
ALTERATION: Limonite Malachite Sericite Pyrite Quartz
Silica
ALTERATION TYPE: Oxidation Sericitic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Podiform Massive
CLASSIFICATION: Hydrothermal Epithermal Volcanogenic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 300 x 3 Metres STRIKE/DIP:
COMMENTS: Shear-hosted veins strike northwest and dip steeply east, conformable with the schistosity in the enclosing formation. The shear is 3 metres wide and mineralization is traced for 300 metres.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Cadwallader Undefined Formation

LITHOLOGY: Pyritic Quartz Sericite Schist
Massive Andesite
Andesite Breccia
Andesitic Pyroclastic
Dacitic Pyroclastic
Tuff
Quartz Feldspar Porphyry Pyroclastic
Quartz Feldspar Porphyry Flow
Sill
Dike

HOSTROCK COMMENTS: Quartz feldspar porphyry dikes and sills probably related to Pacific Range intrusions are located 1 kilometre to the west.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1990
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 44.4000 Grams per tonne
Copper 2.8800 Per cent
Zinc 0.0900 Per cent
COMMENTS: The weighted average over 3 metres from the Eva showing outcrop.
REFERENCE: Assessment Report 21272.

CAPSULE GEOLOGY

The Moffat prospect is located in the headwaters of Tenquille Creek, 25 kilometres north of Pemberton. Mineralization was originally discovered in the area in the early 1920s by G. Moffat. At this time, the property consisted of

CAPSULE GEOLOGY

the Moffat and later the Eva claims. From 1922 to 1926, five adits, several pits and trenches were excavated. In 1984 and 1985, Caliente Resources Ltd. acquired the property and conducted geological mapping, and soil, magnetic and electromagnetic surveys. In 1990, Teck Corporation optioned the property from Caliente Resources (now Toscana Resources). Further geological mapping, and soil and geophysical surveys were conducted for volcanogenic massive sulphide targets.

Regionally, the property lies in a northwest trending belt of volcano-sedimentary rocks assigned to the Upper Triassic Cadwallader Group, which represents an island arc assemblage with reported occurrences of felsic volcanic rocks.

At the Moffat prospect, strata of the Cadwallader Group are northwest trending, northeast dipping, right-side-up calcalkaline volcanic rocks. The volcanic assemblage is intruded by a Cretaceous diorite to quartz diorite pluton. Tertiary basalt flows with minor rhyolite overlie the Cadwallader Group to the northwest. Four stratigraphic units have been identified in the Cadwallader Group at the Moffat prospect. From oldest to youngest these are massive andesite and andesite breccia, mixed andesite to dacite pyroclastics, quartz feldspar porphyry pyroclastics and dacite to rhyodacite quartz feldspar porphyry flows. Mixed pyroclastics are composed of dark green andesitic tuffs and dacitic lithic lapilli ash tuff and lesser breccia. Black shale, pale green mudstone, black to grey siltstone, black and green phyllite, white chert and feldspar-rich volcanic greywacke with minor conglomerate comprise minor sedimentary interbeds. Andesite and pyroclastics are altered to siliceous sericite schist and appears to be associated with the Grizzly fault zone. The porphyry dikes are probably related to the Jurassic to Cretaceous Coast Plutonic Complex which lies to the west.

A major northwest trending fault, the Grizzly shear zone, bisects the Moffat prospect. The fault is composed of a complex set of anastomosing northwest shears. The Grizzly shear zone is thought to be a regional fault more than 100 kilometres long. Foliations in the main part of the Grizzly shear zone strike west-northwest to northwest. Dips are moderately west.

Mineralization has been discovered at three main showings on the Moffat prospect: the Eva, Grizzly shear and along shale contacts.

The Eva showing constitutes the original discovery at the Moffat prospect. A 1-metre wide outcrop is exposed on surface and explored by a 3-metre deep vertical shaft, two adits, and several pits and trenches. Mineralization consists of chalcopyrite and minor pyrite, sphalerite and bornite with quartz blebs and chlorite. The mineralization occurs in a 3-metre wide silicified pyritic zone hosted in a larger sericite altered zone in a thin quartz feldspar porphyry flow or sill. In the shaft, irregular pyrite and chalcopyrite veinlets cut a rusty chloritic rock with quartz blebs. In a caved adit, 30 metres below the shaft, narrow bands of quartz sericite schist with pyrite and chalcopyrite were reported. The Lower Creek adit, along Grizzly Creek, was driven in the 1920s to intersect the Eva zone 213 metres lower in elevation. Pyritic quartz sericite schists are exposed at the portal.

In 1985, samples from a contact zone assayed trace gold and 68.6 grams per tonne silver, 1 per cent copper, 6.1 per cent lead and 12.1 per cent zinc (Assessment Report 14708). Sampling of the Eva outcrop in 1990 yielded 5.60 per cent copper, 0.16 per cent zinc, 88.3 grams per tonne silver and trace gold (Assessment Report 21272). Samples from the 1.5-metre wide silicified footwall and 0.5-metre wide hangingwall yielded up to 0.14 per cent copper and 8.7 grams per tonne silver. The weighted average over 3 metres was 2.88 per cent copper, 0.09 per cent zinc and 44.4 grams per tonne silver (Assessment Report 21272). A sample from the Lower Creek adit dump yielded 0.07 per cent copper, 0.13 per cent zinc, 9.89 grams per tonne silver and 0.02 per cent arsenic (Assessment Report 21272).

The Grizzly shear zone contains more zinc-rich mineralization associated with quartz sericite schists. The Canyon and Creek adits exposed this type of mineralization along Grizzly Creek. The 5-metre long Canyon adit contains pyrite, sphalerite with minor chalcopyrite and galena mineralization within a 1-metre wide silicified zone hosted in pyritic quartz sericite schists. The schists appear to have originated from felsic crystal tuffs. This zone has been traced for 300 metres. The 35-metre long Creek adit was excavated in the 1920s to intersect a 1.5-metre wide pyritic silicified zone exposed in an open-cut northwest of the Creek adit. The siliceous zone is hosted by pyritic quartz sericite schist and carries sphalerite with minor galena. Chalcopyrite mineralization is hosted by quartz veins in the vicinity. Bands of sphalerite mineralization can be traced for 200 metres along the creek. Additional evidence for remobilization are mineralized quartz veins exposed within pyritic quartz sericite

CAPSULE GEOLOGY

schists along the Grizzly shear zone 1.0 to 1.8 kilometres northwest of the Canyon adit.

A grab sample from the Canyon adit in 1990 yielded 4.0 per cent copper, 0.7 per cent lead, 9.0 per cent zinc, 20.0 grams per tonne silver and 0.1 gram per tonne gold (Assessment Report 21272). Pre-1990 sampling from the Canyon adit yielded up to 1.02 per cent copper, 1.14 per cent lead, 6.60 per cent zinc, 26.06 grams per tonne silver and 0.17 gram per tonne gold (Assessment Report 21272). A grab sample of pyritic quartz sericite schist from the Creek adit yielded 0.06 per cent copper, 0.10 per cent lead, 0.37 per cent zinc, 12.6 grams per tonne silver and 0.25 gram per tonne gold (Assessment Report 21272).

Similar but less extensive mineralization than the Eva showing is exposed at several locations up to 1.5 kilometres northwest of the Eva showing. The mineralization consists of pyrite, chalcopyrite and malachite hosted by silicified and sericite altered quartz feldspar porphyry sills and/or dikes at shale contacts. Samples of mineralized quartz feldspar porphyry sills at the shale contact yielded up to 1.5 per cent copper, 0.3 per cent lead, 0.07 per cent zinc and 13.8 grams per tonne silver (Assessment Report 21272).

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1937-F16; 1961-29
EMPR ASS RPT *365, *14224, *14708, *21272, 22247
EMPR FIELDWORK 1987, pp. 93-100, 1990; 1991
EMPR OF 1999-2
EMPR PF (Skerl, A.C. (1952): Report)
GSC MAP 13-1973
GSC OF 482
GSC P 73-17
GSC SUM RPT 1917B, p. 19

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE048**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER MOUND**, COPPER MOUNTAIN, CUB,
M, MONZA, MAE

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 31 52 N
LONGITUDE: 122 56 42 W
ELEVATION: 1900 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5597686
EASTING: 503898

LOCATION ACCURACY: Within 500M

COMMENTS: Located at the head of Wolverine Creek (Open File 1989-26).

COMMODITIES: Copper Lead Zinc Silver Gold
 Iron Magnetite

MINERALS

SIGNIFICANT: Pyrrhotite Magnetite Sphalerite Chalcopyrite Galena
 Arsenopyrite Pyrite

ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Skarn
 TYPE: K02 Pb-Zn skarn
COMMENTS: Attitude of limestone bed containing ore strikes northeast and has a low angle northeast dip.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic Mesozoic-Cenozoic	Cadwallader	Pioneer	Coast Plutonic Complex

LITHOLOGY: Limestone
 Andesite Tuff
 Quartz Porphyry Dike
 Andesite Breccia
 Andesite Agglomerate

HOSTROCK COMMENTS: Limestone is fossiliferous.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1988
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	98.5000 Grams per tonne
Gold	0.4200 Grams per tonne
Iron	32.8000 Per cent
Lead	0.0100 Per cent

REFERENCE: Open File 1989-26.

CAPSULE GEOLOGY

The area of the Copper Mound showing is underlain by a series of faulted volcanic and sedimentary rocks of the Upper Triassic Pioneer Formation, Cadwallader Group. The strata are intruded by rocks related to the Jurassic to Tertiary Coast Plutonic Complex, including several quartz porphyry sills and dykes, and surrounded by quartz porphyry and more mafic Coast Plutonic Complex intrusives. The volcanics are andesitic tuffs, breccias and agglomerates. The sediments and particularly the limestone beds are fossiliferous. A thick limestone bed strikes northeast and dips shallowly north in close association with a volcanic unit.

The limestone contains massive pyrrhotite, magnetite and sphalerite with a little chalcopyrite. Several smaller occurrences of galena, arsenopyrite, pyrite and chalcopyrite are seen replacing the limestone. Low values in gold, silver and platinum are reported near a volcanic "dyke". One sample taken in 1988 assayed 0.42 gram

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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CAPSULE GEOLOGY

per tonne gold, 98.5 grams per tonne silver, 0.01 per cent lead and 32.8 per cent iron and non anomalous values in copper and zinc (Open File 1989-26). Another sample taken at the same time assayed 0.012 gram per tonne gold, 14.5 grams per tonne silver, 0.48 per cent copper and 0.13 per cent lead.

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EMPR AR 1923-A168; 1929-235; 1930-203
EMPR ASS RPT 20642
EMPR FIELDWORK 1987, pp. 93-100
EMPR OF *89-26
EMPR PF (*Report by J.P. Branch, A.C. Skerl, 1952)
GSC OF 482
GSC SUM RPT 1924A, p. 95

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/18

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE049**

NATIONAL MINERAL INVENTORY:

NAME(S): **SENECA**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 31 49 N
LONGITUDE: 122 55 00 W
ELEVATION: 1750 Metres

NORTHING: 5597595
EASTING: 505906

LOCATION ACCURACY: Within 500M

COMMENTS: Position of adit (Figure 36, Assessment Report 17261).

COMMODITIES: Gold Iron Silver Magnetite Copper Lead Zinc

MINERALS

SIGNIFICANT: Magnetite Pyrite Chalcopyrite Sphalerite Galena
ASSOCIATED: Calcite Chlorite Garnet
ALTERATION: Garnet
ALTERATION TYPE: Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Skarn
TYPE: K02 Pb-Zn skarn I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Andesitic Tuff
Fine Grained Mafic Dike
Volcanic Flow
Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1987

COMMODITY

Gold

GRADE

2.0400

Grams per tonne

COMMENTS: Sample R1184.

REFERENCE: Assessment Report 17261.

CAPSULE GEOLOGY

Located on the lower slopes of Mount McLeod above Tenquille Lake, the Seneca showing occurs within a region underlain by a northwesterly trending roof pendant of the Upper Triassic Cadwallader Group. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Jurassic to Tertiary Coast Plutonic Complex. In the vicinity of the showing, the Cadwallader Group is represented by a sequence of volcanic flows and pyroclastics, probably of andesitic composition, intruded by fine-grained mafic dykes and younger porphyry dykes.

Magnetite-garnet skarns in the volcanic rocks containing chalcopyrite, galena and sphalerite strike east and dip moderately to the north. Calcite-chlorite veins, up to 1.5 metres wide, are also east trending. Mineralization in the veins consists of chalcopyrite, pyrite, sphalerite and galena.

A samples taken in 1987, apparently of skarn mineralization, assayed 0.33 per cent copper and 6.4 grams per tonne silver; another sample grading 2.04 grams per tonne gold appears to have been collected from a vein (Assessment Report 17261).

BIBLIOGRAPHY

EMPR AR 1961-29

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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ENERGY AND MINERALS DIVISION

PAGE: 589
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR ASS RPT 365, 4145, *17261, 19169, 20642
EMPR EXPL 1988-C121
EMPR FIELDWORK 1987, pp. 93-100
EMPR OF 1989-26
EMPR PF (Report by A.C. Skerl, 1952; Statement of Material Facts,
Tenquille Resources Ltd., 1987)
GSC OF 482
GSC P 73-17; Map 13-1973
GSC SUM RPT *1924, p. 96A

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/07

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE050**

NATIONAL MINERAL INVENTORY:

NAME(S): **WONDER**

MINING DIVISION: Lillooet

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092J10W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 31 37 N
 LONGITUDE: 122 54 40 W
 ELEVATION: 1830 Metres

NORTHING: 5597225
 EASTING: 506301

LOCATION ACCURACY: Within 500M

COMMENTS: Located 1.3 kilometres from the southeast end of Tenquille Lake
 (Geological Survey of Canada Map 76A).

COMMODITIES: Silver Zinc Copper Lead

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite Galena Pyrite
 ASSOCIATED: Calcite Chlorite
 ALTERATION: Limonite
 ALTERATION TYPE: Skarn Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
 CLASSIFICATION: Skarn Epigenetic
 TYPE: K02 Pb-Zn skarn I05 Polymetallic veins Ag-Pb-Zn±Au
 COMMENTS: Veins located in noses of two folds plunging 70 degrees northwest.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Undefined Formation	

LITHOLOGY: Limestone
 Slate
 Quartzite
 Andesitic Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
 TERRANE: Cadwallader
 METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1987
 SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	11.3000	Grams per tonne
Copper	0.0700	Per cent
Lead	0.1900	Per cent
Zinc	0.1100	Per cent

 COMMENTS: Sample F9695
 REFERENCE: Assessment Report 17261.

CAPSULE GEOLOGY

The Wonder showing, located southeast of Tenquille Creek on Mount McLeod, occurs within a region underlain by a roof pendant of Upper Triassic volcanic and sedimentary rocks of the Cadwallader Group. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Jurassic to Tertiary Coast Plutonic Complex. In the area of the Wonder showing, rocks consist of metamorphosed andesitic volcanics and limestone with interbedded quartzite and slate. Metasedimentary rocks are tightly folded and plunge 70 degrees to the northwest.

Discontinuous, 15-centimetre wide veins are mineralized with sphalerite, galena, chalcopyrite, pyrite and limonite at the skarnified contact between limestone and slate and quartzite beds. The best sample taken from these veins assayed 11.3 grams per tonne silver, 0.07 per cent copper, 0.19 per cent lead and 0.11 per cent zinc (Assessment Report 17261).

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RUN TIME: 09:30:14

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PAGE: 591
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR ASS RPT 365, 4154, *17261, 19169, 20642
EMPR EXPL 1988-C121
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EMPR PF (*Skerl, A.C. (1952): Report on the National Consolidated Base
Metal Company Near Maude Lake; Statement of Material Facts,
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GSC OF 482
GSC P 73-17
GSC SUM RPT *1924, p. 96A

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/18

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JNE050

MINFILE NUMBER: **092JNE051**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILVER BELL**, APOLLO, SUN,
GOD

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:
LATITUDE: 50 31 26 N
LONGITUDE: 122 52 30 W
ELEVATION: 1645 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Adit location (Assessment Report 21274).

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5596889
EASTING: 508861

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Galena Chalcopyrite Sphalerite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
COMMENTS: Sulphide "lenses" are up to 20 centimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex
Unnamed/Unknown Informal

LITHOLOGY: Massive Andesite Flow
Andesite
Andesitic Pyroclastic
Dacitic Pyroclastic
Epiclastic
Boulder Pebble Conglomerate
Sandstone
Greywacke
Siltstone
Lamprophyre Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: UNDERGROUND WORKINGS

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1926

COMMODITY

GRADE

Silver	816.0000	Grams per tonne
Gold	1.7000	Grams per tonne
Lead	23.8000	Per cent
Zinc	13.3000	Per cent

COMMENTS: Ore from underground workings taken at a depth of 46 metres below surface.

REFERENCE: Minister of Mines Annual Report 1926, page 193.

CAPSULE GEOLOGY

The Silver Bell prospect is located to the south of Tenquille Creek on the lower slopes of Mount Barbour. Mineral exploration began in the Tenquille Lake area in 1916, during the construction of the Pacific Great Eastern Railway. Between 1923 and 1937, work was conducted on the Gold King and Dora May claims, and the Li-Li-Kel property. The zinc-rich skarn and shear-hosted vein type mineralization on the Gold King and Dora May were explored by several opencuts and diamond drilling. Little other work was conducted until the 1960s when Phelps Dodge Corp. carried out exploration work in the area. Various other companies have conducted limited exploration throughout the surrounding area

CAPSULE GEOLOGY

since. In 1990, Teck Corp. staked the Apollo, Sun and God claims of the Sungod property covering the Silver Bell prospect. The occurrence is reported to have been developed by at least three adits.

The area is underlain by a northwest trending, northeast dipping, right-side-up roof pendant of Upper Triassic Cadwallader Group which consists of massive to schistose greenstone of andesitic composition. The Cadwallader Group represents an island arc assemblage with reported occurrences of felsic volcanics. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Spetch pluton and other intrusions of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Silver Bell prospect the Cadwallader Group has been subdivided into five units which from oldest to youngest are: 1) massive andesite, 2) mixed pyroclastic, 3) felsic volcanic, 4) mixed pyroclastic and 5) sedimentary. The massive andesite unit consists of dark green massive basaltic andesite flows. The mixed pyroclastic unit consists of pale to dark green andesitic to dacitic fine tuffs, lithic tuffs, feldspar crystal tuffs and lapilli tuff with minor interbedded porphyritic flows. The felsic volcanic unit consists of light grey to pale green rhyolite and rhyodacite flows, commonly feldspar porphyritic. The mixed pyroclastic and sedimentary unit consists of well bedded andesite to dacite, lithic and lapilli tuffs with abundant limestone, limestone breccias, calcareous feldspar-rich wackes, black shale, siltstone and chert interbeds. The upper sedimentary unit consists of an upward fining sequence of cobble conglomerate, feldspar-rich greywackes and sandstones, black shale and chert.

Andesite flows and tuffs of the Cadwallader Group are cut by a 1.1-metre wide lamprophyre dike, which strikes northwest and dips steeply southwest. The andesites are massive to slightly schistose, strike northwest and dip shallowly north.

A narrow quartz-filled fissure occupies the west side of the dike, with up to a 20 centimetre width of sulphides including galena, sphalerite, chalcopyrite and pyrite.

A sample taken in 1926 from the underground workings assayed 1.7 grams per tonne gold, 816 grams per tonne silver, 23.8 per cent lead and 13.3 per cent zinc (Minister of Mines Annual Report 1926, page 193).

Sampling at and in the vicinity of the Silver Bell prospect in 1991 yielded maximum values of 0.6 per cent copper, 3.0 per cent lead, 8.0 per cent zinc, 0.45 gram per tonne gold and 5.5 grams per tonne silver (Assessment Report 21274). However, the values were sporadic and confined to narrow widths. The mineralization is associated with high manganese, boron and antimony values, the latter reflecting the presence of tetrahedrite.

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EMPR ASS RPT 365, 4154, *17261, 19169, 20642, *21274
EMPR OF 1989-26
EMPR PF (*Skerl, A.C. (1952): Report on the National Consolidated Base Metal Company Near Maude Lake; Statement of Material Facts, Tenquille Resources Ltd., 1987)
GSC MAP 13-1973; 76A
GSC OF 482
GSC P 73-17
GSC SUM RPT *1924, p. 96A

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE052**

NATIONAL MINERAL INVENTORY:

NAME(S): **LILI-KEL**, GRIDIRON, NUMBER THREE,
APOLLO, SUN, GOD

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:
LATITUDE: 50 31 23 N
LONGITUDE: 122 52 46 W
ELEVATION: 1920 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Upper adit (Assessment Report 21274).

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5596796
EASTING: 508546

COMMODITIES: Silver Gold Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite Arsenopyrite
Tetrahedrite Polybasite Silver Argentite
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n Propylitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
COMMENTS: Vein offset by a series of northwest-striking faults.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Undefined Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Massive Andesite Flow
Andesitic Pyroclastic
Dacitic Pyroclastic
Epiclastic
Flow
Boulder Pebble Conglomerate
Sandstone
Greywacke
Siltstone
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 300.3000 Grams per tonne
Gold 0.5800 Grams per tonne
COMMENTS: A 1.52-metre intersection in diamond-drill hole 9.
REFERENCE: Assessment Report 11418.

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1991
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 5.5000 Grams per tonne
Gold 0.4500 Grams per tonne
Copper 0.6000 Per cent
Lead 3.0000 Per cent
Zinc 8.0000 Per cent
COMMENTS: Maximum values from rock sampling in 1991.
REFERENCE: Assessment Report 21274.

CAPSULE GEOLOGY

The Li-Li-Kel and Number Three occurrences are located to the south of Tenquille Creek on the lower slopes of Mount Barbour.

In the 1920s, the Li-li-kel was developed by two adit levels with over 300 metres of underground workings.

The area is underlain by a northwest trending, northeast dipping, right-side-up roof pendant of Upper Triassic Cadwallader Group which consists of massive to schistose greenstone of andesitic composition. The Cadwallader Group represents an island arc assemblage with reported occurrences of felsic volcanics. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Spetch pluton and other intrusions of the Jurassic to Cretaceous Coast Plutonic Complex.

At the Li-Li-Kel occurrence the Cadwallader Group has been subdivided into five units which from oldest to youngest are: 1) massive andesite, 2) mixed pyroclastic, 3) felsic volcanic, 4) mixed pyroclastic and 5) sedimentary. The massive andesite unit consists of dark green massive basaltic andesite flows. The mixed pyroclastic unit consists of pale to dark green andesitic to dacitic fine tuffs, lithic tuffs, feldspar crystal tuffs and lapilli tuff with minor interbedded porphyritic flows. The felsic volcanic unit consists of light grey to pale green rhyolite and rhyodacite flows, commonly feldspar porphyritic. The mixed pyroclastic and sedimentary unit consists of well bedded andesite to dacite, lithic and lapilli tuffs with abundant limestone, limestone breccias, calcareous feldspar-rich wackes, black shale, siltstone and chert interbeds. The upper sedimentary unit consists of an upward fining sequence of cobble conglomerate, feldspar-rich greywackes and sandstones, black shale and chert.

Northeast striking shear zones cutting the andesitic tuffs contain irregular lenses of quartz with minor amounts of cryptocrystalline silica. These lenses are erratically mineralized with pyrite, sphalerite, chalcopyrite, galena, arsenopyrite, polybasite, native silver, tetrahedrite and possibly argentite. Silicification and often intense propylitization accompany the sulphide mineralization. Mineralized zones vary from a few centimetres to over two metres wide and can be traced discontinuously along strike for 100 to 200 metres.

The best results of diamond drilling carried out during 1983 was an intersection of 1.52 metres grading 300 grams per tonne silver and 0.58 gram per tonne gold (Assessment Report 11418). Assays from samples taken in 1983 graded from 0.03 to 25 grams per tonne gold and from 0.34 to 6583 grams per tonne silver (Assessment Report 11011).

Sampling in 1991 yielded maximum values of 0.6 per cent copper, 3.0 per cent lead, 8.0 per cent zinc, 0.45 gram per tonne gold and 5.5 grams per tonne silver (Assessment Report 21274). However, the values were sporadic and confined to narrow widths. The mineralization is associated with high manganese, boron and antimony values, the latter reflecting the presence of tetrahedrite.

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EMPR PF (Starr, C.C. (1936): Report on the Gridiron Mine, 8 p.;
Sketches of the Gridiron Mine, 1936, Scale 1"=50' and 1"=500'
showing assays; *Skerl, A.C. (1952): Report on the National
Consolidated Base Metal Company Near Maude Lake; Statement of
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GSC OF 482
GSC P 73-17
GSC SUM RPT *1924, p. 98A
GCNL #54, 1982; #84, #98, #113, #134, 1983
IPDM May/June 1983
N MINER Mar.25, 1982

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/30

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FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 597
REPORT: RGEN0100

CAPSULE GEOLOGY

and 21 metres deep, with lateral workings. A sample of 100 pounds representing five tons of ore mined had an average return from 2 assays of 4006 grams per tonne silver, 4.1 per cent lead and 3.2 per cent zinc (Geological Survey of Canada Summary Report 1924, page 93A).

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GSC OF 482
GSC P 73-17
GSC SUM RPT *1924, p. 93A

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/06

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JNE053

MINFILE NUMBER: **092JNE054**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOLD KING**, EVAN, HIAG,
GRIDIRON, SUN, APOLLO,
GOD

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:
LATITUDE: 50 30 55 N
LONGITUDE: 122 53 39 W
ELEVATION: 1920 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Old workings (Assessment Report 10299).

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5595930

EASTING: 507503

COMMODITIES: Gold Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Pyrrhotite Sphalerite Pyrite Chalcopyrite Galena

Magnetite

COMMENTS: Chalcopyrite and magnetite are minor. Galena is reported where the shear is widest.

ASSOCIATED: Quartz

ALTERATION: Diopside Garnet Epidote Quartz Limonite

COMMENTS: Iron oxide.

ALTERATION TYPE: Skarn Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratabound Vein
CLASSIFICATION: Skarn Hydrothermal Epigenetic
TYPE: K02 Pb-Zn skarn I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 1200 x 90 Metres STRIKE/DIP: 165/45E TREND/PLUNGE:
COMMENTS: Gossanous shear zone with quartz veins in limestone contains vein and skarn mineralization over 90 metres width and 1.2 kilometres length.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Limestone
Massive Basaltic Andesite Flow
Andesitic Tuff
Dacitic Tuff
Lithic Tuff
Feldspar Crystal Tuff
Lapilli Tuff
Porphyritic Flow
Rhyolite Flow
Rhyodacite Flow

HOSTROCK COMMENTS: Probably Pioneer and/or Hurley formations (of the Cadwallader Group).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader
METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE: Hornfels

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1952
SAMPLE TYPE: Chip
COMMODITY

	GRADE	
Silver	51.4000	Grams per tonne
Gold	4.8000	Grams per tonne
Copper	0.1000	Per cent
Lead	0.4000	Per cent
Zinc	2.2000	Per cent

COMMENTS: Vein sample across 1.9 metres.
REFERENCE: Property File - Skerl (1952): Report.

CAPSULE GEOLOGY

The Gold King prospect is located along a north flowing tributary of Tenquille Creek between Mount McLeod and Mount Barbour.

Mineral exploration began in the Tenquille Lake area in 1916, during the construction of the Pacific Great Eastern Railway. Between 1923 and 1937, work was conducted on the Gold King and Dora May claims, and the Li-Li-Kel property. The zinc-rich skarn and shear-hosted vein type mineralization on the Gold King and Dora May were explored by several opencuts and diamond drilling. Little other work was conducted until the 1960s when Phelps Dodge Corp. carried out exploration work in the area. Various other companies have conducted limited exploration throughout the surrounding area since. In 1990, Teck Corp. staked the Apollo, Sun and God claims of the Sungod property covering the Gold King prospect.

The region is underlain by a large northwest trending, northeast dipping, right-side-up, roof pendant consisting of volcanic and sedimentary rocks of the Upper Triassic Cadwallader Group. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Jurassic to Cretaceous Coast Plutonic Complex. The Cadwallader Group is unconformably overlain by a relatively thin section of volcano-sedimentary rocks thought to be of Jurassic or Cretaceous age. The Spetch Creek pluton intrudes these two stratigraphic packages. Isolated exposures of Tertiary basalts overlie the above rock units.

At the Gold King prospect the Cadwallader Group has been subdivided into five units which from oldest to youngest are: 1) massive andesite, 2) mixed pyroclastic, 3) felsic volcanic, 4) mixed pyroclastic and 5) sedimentary. The massive andesite unit consists of dark green massive basaltic andesite flows. The mixed pyroclastic unit consists of pale to dark green andesitic to dacitic fine tuffs, lithic tuffs, feldspar crystal tuffs and lapilli tuff with minor interbedded porphyritic flows. The felsic volcanic unit consists of light grey to pale green rhyolite and rhyodacite flows, commonly feldspar porphyritic. The mixed pyroclastic and sedimentary unit consists of well bedded andesite to dacite, lithic and lapilli tuffs with abundant limestone, limestone breccias, calcareous feldspar-rich wackes, black shale, siltstone and chert interbeds. The upper sedimentary unit consists of an upward fining sequence of cobble conglomerate, feldspar-rich greywackes and sandstones, black shale and chert.

The prospect is hosted by limestone in an assemblage of andesite and dacite flows, breccia and tuff and sedimentary rocks.

A shear zone in limestone is marked by a 90-metre wide gossan, which is traceable for over a kilometre. The shear hosts a 3.3-metre wide skarn zone containing massive pyrrhotite, sphalerite, pyrite and some chalcopyrite and magnetite in drusy crystalline fractured quartz and as skarn mineralization in the limestone. Massive galena is also reported where the shear is widest.

A grab sample, taken from an 8-metre deep shaft sunk in 1930, assayed 19.2 grams per tonne gold, 308.6 grams per tonne silver, 0.8 per cent lead and 6.8 per cent zinc (Minister of Mines Annual Report 1930). A vein sample taken across 1.9 metres assayed 4.8 grams per tonne gold, 51.4 grams per tonne silver, 0.4 per cent lead, 2.2 per cent zinc and 0.1 per cent copper (Property File - Sker1, 1952). A number of other small lenses of massive sulphides are reported in the immediate vicinity. Three samples were taken from the Gold King prospect in 1991 (samples 14210 to 14212). Samples 14210 and 14211 were taken from diopside, epidote, garnet, quartz skarn with pyrrhotite and pyrite mineralization. Sample 14211 yielded the higher values with 0.05 per cent copper, 0.62 per cent lead, 0.43 per cent zinc, 2.0 grams per tonne gold and 12.8 grams per tonne silver (Assessment Report 21274). Sample 14212, from a 5 to 7 centimetre wide quartz vein yielded 0.02 per cent copper, 3.23 per cent lead, 0.82 per cent zinc, 4.8 grams per tonne gold and 78.3 grams per tonne silver (Assessment Report 21274).

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EMPR OF 1989-26
EMPR PF (*Sker1, A.C. (1952): Report on the National Consolidated Base Metal Company Near Maude Lake; Statement of Material Facts, Tenquille Resources Ltd., 1987)
GSC MAP 13-1973
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 600
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

northerly trending shears and disseminated on fractures. The highest concentrations are in a 1-metre wide lenticular zone as clots of solid fine-grained crystals or rosettes which assay up to 7 per cent MoS₂ and have low grade (1.3 grams per tonne) gold values. The molybdenum is associated with quartz and sericite with kaolinitized orthoclase. Molybdenite, an oxide of molybdenite, characterizes the surface of enriched zones. In 1916, 7.4 tonnes of material grading 15.01 per cent MoS₂ was extracted (Minister of Mines Annual Report 1949, page 113).

Uraninite has been reported in the mineralized outcrops; however, assays are low, the highest being 0.0085 per cent U₃O₈ (Minister of Mines Annual Report 1949, page 114).

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EMPR GEM 1970-227; 1977-E162
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GCNL #81, 1978

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/20

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE056**

NATIONAL MINERAL INVENTORY:

NAME(S): **RAVEN**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 35 07 N
LONGITUDE: 122 10 05 W
ELEVATION: 1830 Metres

NORTHING: 5604038
EASTING: 558896

LOCATION ACCURACY: Within 500M

COMMENTS: Located near Downton Creek, about 15 kilometres south of Seton Lake, between elevations 1067 and 2286 metres (George Cross News Letter No.117, June 18, 1991).

COMMODITIES: Gold Lead Zinc

MINERALS

SIGNIFICANT: Gold Pyrite Arsenopyrite Galena Sphalerite

COMMENTS: Galena and sphalerite are minor.

ASSOCIATED: Quartz

ALTERATION: Carbonate Mariposite

ALTERATION TYPE: Quartz-Carb.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Mesothermal Epigenetic

TYPE: I01 Au-quartz veins

DIMENSION: Metres STRIKE/DIP: 360/90E

COMMENTS: The principal vein set strikes north and dips vertical. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Greenstone
Listwanite
Volcanic
Cherty Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1991

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Gold

6.1700

Grams per tonne

COMMENTS: From a 2.9-metre drill interval.

REFERENCE: George Cross News Letter No.117, June 18, 1991.

CAPSULE GEOLOGY

The Raven showing is located near Downton Creek, about 15 kilometres south of Seton Lake, between elevations 1067 and 2286 metres.

The Raven showing region is underlain by the Mississippian to Jurassic Bridge River Complex (Group), which are exposed along a broad, complex antiformal structure that plunges northwest. The group consists mainly of a thick sequence of bedded chert, chert argillite and argillite intercalated with altered basaltic flows (greenstone) and minor limestone. The greenstone is altered to listwanite (quartz-carbonate alteration) and flooded by pyrite. Most of the Bridge River Group exhibits pumpellyite-prehnite metamorphic grade.

The Raven showing was first discovered by G. Polischuk after gold-bearing pyrite float was discovered on a logging road at the south end of the claim and above Downton Creek. Subsequent soil geochemical sampling upslope led to the discovery of visible free gold in quartz-pyrite float and in trenches.

CAPSULE GEOLOGY

Limited outcrop at the Raven showing consists of listwanite altered greenstone containing extensive quartz veining varying from a few centimetres to 2 to 3 metres in thickness. The veins pinch and swell extensively and their attitudes are mostly irregular. However, a principal set strikes approximately north and dips vertically. These are interspersed with flat lying quartz veins dipping generally northeast. Mineralization consists of pyrite and arsenopyrite with galena and sphalerite. The gold-bearing veins are intimately associated with listwanite altered greenstone, dipping 40 degrees to the west. The best gold values occur in the hangingwall or footwall of greenstone layers.

A grab sample from arsenopyrite-pyrite-galena mineralization in a quartz vein yielded 3.5 grams per tonne gold (Assessment Report 21668).

Oxidized metallics carrying free gold have been intersected in drillholes. One drill intersection assayed 6.17 grams per tonne gold over 2.9 metres (George Cross News Letter No.117, June 18, 1991). One sample consisting of powdery arsenopyrite in a quartz vein in altered greenstone yielded 682.5 grams per tonne gold (Assessment Report 21668).

Sampling from Trench RTR91-9 (D zone) exposed quartz veins dipping 50 degrees to the west and containing visible gold over significant widths. Sample yielded greater than 34 grams per tonne gold. The vein has been offset by right-lateral motion approximately 100 metres. Below and across the fault two veins were discovered on the hangingwall and footwall sides of listwanite altered greenstone. Two samples yielded 55.13 grams per tonne over 70 centimetres and 57.70 grams per tonne over 50 centimetres width (sample 1-00399), respectively.

Trenching in 1992 uncovered a shallow dipping shear zone. The best assay, sample 1-00376, yielded 16.30 grams per tonne gold over 1 metre width from Trench 92-T-4 (Assessment Report 22874).

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pp. 115-130; 1989, pp. 45-51, pp. 53-72; 1990, pp. 75-83
EMPR OF 1987-11; 1989-4
GSC OF 482
GCNL *#117, 1991

DATE CODED: 1991/08/01
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE057**

NATIONAL MINERAL INVENTORY:

NAME(S): **LUBRA**, FLORA

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 45 15 N
LONGITUDE: 122 22 30 W
ELEVATION: 2040 Metres

NORTHING: 5622674
EASTING: 544087

LOCATION ACCURACY: Within 500M

COMMENTS: East of Nosebag Mountain, south of Carpenter Lake. May be old Flora showing.

COMMODITIES: Tungsten Molybdenum Copper

MINERALS

SIGNIFICANT: Scheelite Molybdenite Pyrrhotite Pyrite Arsenopyrite

ALTERATION: Garnet Powellite

ALTERATION TYPE: Skarn Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratabound Disseminated Podiform

CLASSIFICATION: Skarn

SHAPE: Irregular

COMMENTS: Pods or "dykes" of skarn within limestone.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER

Paleozoic-Mesozoic Bridge River

Undefined Formation

Bendor Pluton

Cretaceous-Tertiary

ISOTOPIC AGE: 57.4 +/- 2.3 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

LITHOLOGY: Limestone
Quartzite
Granodiorite
Marble
Chert
Amphibolite Dike

HOSTROCK COMMENTS: Date on granodiorite (Geological Survey of Canada Paper 77-2, sample GSC 76-50).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP: Syn-mineralization

GRADE: Hornfels

COMMENTS: On border between Intermontane-Coast Crystalline belts.

CAPSULE GEOLOGY

The mineralization consists of scheelite and molybdenum in garnet skarn "dykes" in limestone; pods of sulphide skarn consisting of pyrrhotite, pyrite, arsenopyrite, minor chalcopyrite are associated with the garnet skarn. Weakly disseminated pyrite occurs within quartzite beds south of the limestone beds. The crystalline limestone, chert and quartzite beds are part of the Mississippian to Jurassic Bridge River Complex (Group). Granodiorite of the Cretaceous to Tertiary Bendor pluton and narrow amphibolite dykes intrude the metasediments.

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EMPR GEM 1970-225
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 77-2 (Sample GSC 76-50), 77-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/08/22

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE057**

MINFILE NUMBER: **092JNE058**

NATIONAL MINERAL INVENTORY: 092J15 Sb5

NAME(S): **STIBNITE** LOST GOLD, ORO

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 15 N
LONGITUDE: 122 51 58 W
ELEVATION: 1260 Metres

NORTHING: 5626203
EASTING: 509438

LOCATION ACCURACY: Within 500M

COMMENTS: On western edge of ORO 2 claim at the original "Lost Gold" showing, approximately 1.5 kilometres south of Gwyneth Lake.

COMMODITIES: Antimony Gold Silver Copper

MINERALS

SIGNIFICANT: Stibnite Pyrite Chalcopyrite

COMMENTS: Minor chalcopyrite.

ASSOCIATED: Quartz Calcite

ALTERATION: Carbonate Ankerite

ALTERATION TYPE: Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations I01 Au-quartz veins
SHAPE: Tabular

COMMENTS: Vein is 25 to 30 centimetres wide and strikes north-northwest and dips steeply to the north. Vein younger than F1 fold axis, cuts bedding and F1; vein may be related to F2 folding.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic Mesozoic-Cenozoic	Cadwallader	Hurley	Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Tuff
Volcanic Breccia
Homblende Porphyry Dike
Felsite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader Plutonic Rocks PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEINS REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab
COMMODITY GRADE
Antimony 16.9000 Per cent

COMMENTS: Two 35-centimetre wide stibnite veins in quartz diorite near felsite dyke. Sample from the Oro 2 claim.

REFERENCE: Assessment Report 14725.

ORE ZONE: VEIN REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 97.4000 Grams per tonne
Gold 12.0000 Grams per tonne

COMMENTS: Three 30-centimetre wide quartz veins in quartz diorite near its contact.

REFERENCE: Assessment Report 14725.

CAPSULE GEOLOGY

The Oro claims are underlain by Hurley Formation rocks of the Upper Triassic Cadwallader Group, consisting of sediments and volcanic aquagene breccia striking northwest and dipping southwest.

CAPSULE GEOLOGY

These are intruded by quartz diorite stocks and hornblende porphyry dykes of the Jurassic to Tertiary Coast Plutonic Complex.

On the Oro 3 claim, three narrow quartz-calcite veins containing minor disseminated pyrite, chalcopyrite and stibnite occur in a quartz diorite stock near the contact with Hurley sediments and volcanics. The veins average 30 centimetres in width, strike north-northwest and dip steeply west.

Grab samples assayed 12.0 grams gold per tonne and 97.4 grams silver per tonne (Assessment Report 14725). The original "stibnite" showing (on Oro 2) is hosted in Hurley volcanics and sediments near a hornblende porphyry dyke. Narrow veins in shears are 60 metres long by 25 centimetres wide and contain an average of 8.9 per cent antimony. Northeast of the original showing, also on the Oro 2 claim, 2 narrow stibnite-quartz-calcite veins are hosted in quartz diorite near a felsite dyke. The veins strike north-northwest, dip steeply north and average 7.5 per cent antimony over 25 centimetres for 15 metres strike length. One grab sample assayed 16.9 per cent antimony (Assessment Report 14725).

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GSC MEM 130; 213
GSC OF 482
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DATE CODED: 1985/07/24
DATE REVISED: 1991/03/14

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE059**

NATIONAL MINERAL INVENTORY: 092J15 Au9

NAME(S): **TRUAX**, SPRUCE

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 48 37 N
LONGITUDE: 122 42 05 W
ELEVATION: 1905 Metres

NORTHING: 5628770
EASTING: 521039

LOCATION ACCURACY: Within 500M

COMMENTS: Directly southeast of Mount Truax, west of Truax Creek and near its headwaters. Located about 5 kilometres southeast of Goldbridge.

COMMODITIES: Gold Antimony Silver

MINERALS

SIGNIFICANT: Stibnite Arsenopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I09 Stibnite veins and disseminations

SHAPE: Irregular

MODIFIER: Sheared

COMMENTS: Three parallel quartz veins in shear.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Cretaceous-Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton

LITHOLOGY: Meta Sediment/Sedimentary
Quartz Vein
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Truax showing is underlain by Mississippian to Jurassic metasediments of the Bridge River Complex (Group), near the contact with the Cretaceous to Tertiary Bendor pluton granodiorite. Three parallel quartz veins in a shear zone contain stibnite and arsenopyrite with associated gold values. Although some diamond drilling and trenching have been done on the property, only sketchy descriptions exist.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1970-225; 1972-283
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/12

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE060**

NATIONAL MINERAL INVENTORY: 092J15 Sb4

NAME(S): **TRUAX II**, ROCK, ROY

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 49 22 N
LONGITUDE: 122 46 05 W
ELEVATION: 2286 Metres

NORTHING: 5630143
EASTING: 516337

LOCATION ACCURACY: Within 500M

COMMENTS: Location of Trench 6 (Assessment Report 14727).

COMMODITIES: Gold Silver Antimony Zinc Copper
 Lead Molybdenum

MINERALS

SIGNIFICANT: Stibnite Sphalerite Arsenopyrite Pyrite Orpiment
 Realgar Tetrahedrite Silver Ruby Silver Molybdenite
ASSOCIATED: Quartz Carbonate
ALTERATION: Malachite
ALTERATION TYPE: Sericitic Oxidation Argillic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Epithermal Porphyry
TYPE: L08 Porphyry Mo (Climax-type)
SHAPE: Regular
COMMENTS: Veins range in width from 15 centimetres to 1.2 metres and have a northwest-southeast strike and dip 50 degrees to the northeast.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Cretaceous-Tertiary Bendor Pluton

LITHOLOGY: Granodiorite
 Quartz Vein

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: ROCK

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1971

COMMODITY	GRADE	
Silver	465.0000	Grams per tonne
Gold	0.3400	Grams per tonne
Antimony	16.6300	Per cent

COMMENTS: Grab sample from dump.

REFERENCE: Property File - Tomlinson, 1971.

CAPSULE GEOLOGY

The Truax II is underlain by granodiorite of the Cretaceous to Tertiary Bendor pluton. The contact between the intrusive and steeply dipping sediments and volcanics of the Mississippian to Jurassic Bridge River Group trends northwest-southeast across the northeast corner of the property.

Mineralization occurs in veins related to shear structures in the granodiorite. The veins range from 15 centimetres to 2.5 metres in width, strike northwest-southeast and are relatively flat lying. Pods and disseminations of massive stibnite and sphalerite along with realgar, orpiment, arsenopyrite, pyrite, tetrahedrite and traces of ruby silver occur in quartz-carbonate gangue. Samples assayed 0.34 grams per tonne gold, 456 grams per tonne silver and 16.63 per cent antimony (Property File - Tomlinson, 1971).

The surrounding granodiorite is intensely altered and gossanous just south of the Truax Gold II claim. Mineralization consisting of finely disseminated molybdenite and pyrite is reported in argillic-sericitic altered granodiorite. Work on the property has been mainly trenching.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 610
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR ASS RPT *3101, *14727, *16638, 18437
EMPR EXPL 1986-C260; 1987-C210
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1971-311
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (*Tomlinson, F.C. (1971): Report on Geophysical Survey
Magnetometer and Electromagnetic Survey on Rock-Roy Group of
Mineral Claims; Prospectus, Westview Mining Co. Ltd., 1971;
Geology map, 1987; Property description by B.N.Church, 1990)
GSC MAP 431A
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17; 77-2 (GSC 76-50)
GSC SUM RPT 1932, Part A, pp.57-71
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #68, 1970
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/11

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: 092JNE060

MINFILE NUMBER: **092JNE061**

NATIONAL MINERAL INVENTORY:

NAME(S): **SNO**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 36 19 N
LONGITUDE: 122 42 45 W
ELEVATION: 2220 Metres

NORTHING: 5605971
EASTING: 520344

LOCATION ACCURACY: Within 1 KM

COMMENTS: West side Phelix Creek, 4.8 kilometres north of Birkenhead Lake.

COMMODITIES: Copper

Molybdenum

MINERALS

SIGNIFICANT: Pyrite
COMMENTS: The copper and molybdenum bearing minerals are not known.

ALTERATION: Limonite

COMMENTS: Some associated iron staining is reported.

ALTERATION TYPE: Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated

CLASSIFICATION: Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Paleozoic

Unnamed/Unknown Group

Unnamed/Unknown Formation

Coast Plutonic Complex

Upper Cretaceous

ISOTOPIC AGE: 77.8 +/- 2.9 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

LITHOLOGY: Quartz Diorite
Quartzite

HOSTROCK COMMENTS: Radiometric age date from Geological Survey of Canada Paper 77-2, sample GSC 76-49.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Amphibolite

CAPSULE GEOLOGY

The Sno showing is underlain by a roof pendant of amphibolite facies metasedimentary rocks possibly of Paleozoic age, preserved within quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. Copper and molybdenum minerals are described as being disseminated within quartz diorite adjacent to quartzite.

BIBLIOGRAPHY

EMPR FIELDWORK 1987, pp. 93-100
EMPR GEM 1971-308
GSC OF 482
GSC P 77-2 (Sample GSC 76-49)

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE062**

NATIONAL MINERAL INVENTORY: 092J16 Hg2

NAME(S): **EAGLE MERCURY**, EAGLE, GOLDEN EAGLE,
RED EAGLE

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:
LATITUDE: 50 56 25 N
LONGITUDE: 122 15 55 W
ELEVATION: 840 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: On the east side of Yalakom River. The Red Eagle (092JNE078) was amalgamated with the Eagle property in 1967.

Underground
MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5643441
EASTING: 551621

COMMODITIES: Mercury Silver Gold

MINERALS

SIGNIFICANT: Cinnabar Pyrite
ASSOCIATED: Quartz Dolomite
ALTERATION: Ankerite
ALTERATION TYPE: Carbonate Quartz-Carb.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Breccia
CLASSIFICATION: Hydrothermal Epigenetic Epithermal
TYPE: E01 Almaden Hg I08 Silica-Hg carbonate
SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Permian _____ _____ Bralorne Igneous Complex

LITHOLOGY: Massive Greenstone
Diorite Greenstone Breccia
Diorite

HOSTROCK COMMENTS: Most rocks are greenstone and diorite-greenstone breccia correlated with East Liza Igneous Suite (correlated with Bralorne complex).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist Zeolite

INVENTORY

ORE ZONE: EAGLE REPORT ON: Y
CATEGORY: Indicated YEAR: 1971
QUANTITY: 976039 Tonnes
COMMODITY GRADE
Mercury 0.1655 Per cent
COMMENTS: Drill indicated reserves. Grade is calculated from as 3.31 pounds per ton mercury.
REFERENCE: SMF July 27, 1971 - Condor Mining Ltd., E.P. Sheppard, Jan.22, 1971.

ORE ZONE: EAGLE REPORT ON: Y
CATEGORY: Measured YEAR: 1971
QUANTITY: 641773 Tonnes
COMMODITY GRADE
Mercury 0.2555 Per cent
COMMENTS: Reasonably assured reserves. Grade is calculated from 5.11 pounds per ton mercury.
REFERENCE: SMF July 27, 1971 - Condor Mining Ltd., E.P. Sheppard, Jan.22, 1971.

CAPSULE GEOLOGY

The Eagle mercury prospect is 0.5 kilometre north of the confluence of Shulaps Creek with the Yalakom River. The prospect is within green and purple greenstone and diorite-greenstone breccia assigned to the East Liza Igneous Complex which, in turn, is tentatively correlated with the Permian Bralorne Igneous Complex (Bralorne Intrusions).

CAPSULE GEOLOGY

The greenstone and diorite-greenstone breccia are commonly altered to ankerite, which forms irregular lenticular zones, laced with dolomite stringers. Cinnabar occurs as discrete grains and blebs in the dolomite veinlets or as short crosscutting hair-like stringers.

In 1968, 113 tonnes of ore were mined from which 172 kilograms of mercury were recovered. A 22-kilogram bulk sample collected in 1938 contained 0.44 per cent mercury and 14.74 grams per tonne silver. A floatation concentrate from this sample assayed 3.6 grams per tonne silver and 0.514 grams per tonne gold (Assessment Report 16280).

Ore reserves described as "reasonably assured" (measured geological) in 1971 totalled 641,773 tonnes grading 5.11 pounds per ton mercury. Drill indicated reserves are 976,039 tonnes grading 3.31 pounds per ton mercury (Statement of Material Facts July 27, 1971 - Condor Mining Ltd., E.P. Sheppard, January 22, 1971).

BIBLIOGRAPHY

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EMPR ASS RPT *16280
EMPR BULL 5, p. 64; 32, p. 52
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EMPR GEM 1969-188; 1971-312
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by V. Eardley-Wilmot, 1938)
EMR MIN BULL MR 223 B.C. 164
GSC OF 482
GCNL *#122, 1971 (Reserves)

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/20

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE063**

NATIONAL MINERAL INVENTORY:

NAME(S): **BIRKENHEAD**, HELL CREEK

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

Open Pit

MINING DIVISION: Lillooet

LATITUDE: 50 49 30 N
LONGITUDE: 122 16 20 W
ELEVATION: 2000 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5630617
EASTING: 551259

LOCATION ACCURACY: Within 500M

COMMENTS: In headwaters of Hell Creek, 28 kilometres west-northwest of Lillooet
(Geological Survey of Canada Paper 72-53 pp. 43-44).

COMMODITIES: Jade/Nephrite Talc Gemstones

MINERALS

SIGNIFICANT: Nephrite Talc
ASSOCIATED: Tremolite Serpentine
COMMENTS: Plus some "opaque minerals" not identified.
ALTERATION: Serpentine Talc Tremolite
ALTERATION TYPE: Serpentin'zn Rodingitiz'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Replacement Metamorphic Hydrothermal Industrial Min.
TYPE: Q01 Jade
SHAPE: Tabular
MODIFIER: Fractured
DIMENSION: 300 x 2 Metres STRIKE/DIP: 130/75S TREND/PLUNGE: 065/70
COMMENTS: Nephrite mass in tabular wedge, 2.4 metres wide trending northwest for 300 metres. Cross fractures trend 65 degrees and plunge 70 degrees east.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Paleozoic			Shulaps Ultramafic Complex

ISOTOPIC AGE: 271 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Hornblende

LITHOLOGY: Serpentinite
Jade
Argillaceous Sediment/Sedimentary
Sediment/Sedimentary

HOSTROCK COMMENTS: Bridge River Complex ranges from Mississippian to Middle Jurassic in age. Radiometric dating of Shulaps Complex from Fieldwork 1990 p. 80.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pavilion Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist
COMMENTS: Border between Pavillion Ranges and Pacific Ranges.

CAPSULE GEOLOGY

Jade outcrops at the head of Hell Creek, a northeastern flowing tributary of Bridge River, 28 kilometres west-northwest of Lillooet. A mass of nephrite is fault bounded by serpentinite of the Permian and older Shulaps Ultramafic Complex on the west and by slightly metamorphosed argillaceous sediments of the Mississippian to Jurassic Bridge River Complex on the east. The tabular shaped mass is 2.4 metres wide and trends northwest for 300 metres to where it is cut by a granitic intrusion. The deposit dips 75 degrees south. The east contact is bordered by a talc zone 0.3 metre wide. Cross fractures pervade the nephrite, trending 065 degrees and plunging 70 degrees southeast. The nephrite is described as good to fair quality, the quality being decreased by the presence of coarse tremolite patches, talc and opaque minerals. The deposit was held and quarried by Oscar Messeser of B.C. Gem Supply Ltd. in the early 1970's. Birkenhead Jade produced 100 tonnes of nephrite in 1973.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 615
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR BULL 32 (Map)
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; *1990, pp. 75-83
EMPR GEM 1970-499; 1971-464; 1972-598; 1973-547
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC P *72-53, pp. 43, 44; *78-19
WWW http://www.infomine.com/index/properties/HELL_CREEK.html

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE064**

NATIONAL MINERAL INVENTORY:

NAME(S): **4-TON (L.2085)**, MARSHALL CREEK

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 54 10 N
LONGITUDE: 122 30 51 W
ELEVATION: 1290 Metres

NORTHING: 5639126
EASTING: 534162

LOCATION ACCURACY: Within 500M

COMMENTS: Between Brett Creek and Hog Creek, north of Marshall Creek.
Southeast corner (open cuts) of claim Lot 2085.

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite
ALTERATION: Talc Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform Massive
CLASSIFICATION: Replacement Industrial Min. Hydrothermal
TYPE: Q01 Jade
SHAPE: Irregular
COMMENTS: "Lenses & pods of nephrite jade" strike east-west and have steep dips.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Upper Triassic			Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Schist
Phyllite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE: Greenschist

CAPSULE GEOLOGY

The 4-Ton nephrite showing is 0.5 kilometre east of Brett Creek, 1.25 kilometres north of the confluence of Brett Creek with Marshall Creek.

At the showing, lenses and pods of nephrite occur within serpentinite (probably derived from the Permian and older Shulaps Ultramafic Complex) and its sheared contact with adjacent rocks of the Bridge River Complex (Group) (generally phyllite and rocks regionally metamorphosed to greenschist grade). Approximately 1.5 tonnes of extremely foliated and altered nephrite were excavated but were not of marketable quality.

BIBLIOGRAPHY

EMPR ASS RPT *4360, 4361, 4362, 5846, 5847, 5865, 5960, 6057, 11967, 19599
EMPR BULL 32
EMPR FIELDWORK 1987, pp. 93-130; 1989, pp. 45-51; 1989, pp. 53-72; 1990, pp. 75-83
EMPR GEM 1972-598; 1975-E200; 1976-E203
EMPR OF 1989-4; 1990-10
EMPR PF (Prospectus, Caldera Resources Ltd., 1990)
GSC OF 482
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/11

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

have been removed and about 200 tonnes remain.
Greenbay Mining is reported to have quarried this deposit in the early 1970's (Geological Survey of Canada Paper 72-53, page 44).

BIBLIOGRAPHY

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EMPR ASS RPT 4360, 4361, 4362
EMPR BULL 32
EMPR EXPL 1975, p. E199; 1976, p. E202
EMPR FIELDWORK 1986, pp. 23-29; 1987, pp. 93-104; 1988, pp. 115-143;
1989, pp. 45-72; *1990, pp. 75-83
EMPR GEM 1970-498; 1971-463; 1972-597
EMPR OF 1988-3, 1988-17, 1989-4, 1990-10
GSC P *72-53, p. 44; 78-19
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/19

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE066**

NATIONAL MINERAL INVENTORY: 092J15 Sb1

NAME(S): **GRAY ROCK, BELLORE, EASTER,
IBEX, TRUAX GOLD, ROBIN**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:
LATITUDE: 50 48 15 N
LONGITUDE: 122 42 00 W
ELEVATION: 2130 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Eleven kilometres southeast of Goldbridge at headwaters of Truax
Creek.

Underground
MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5627872
EASTING: 521238

COMMODITIES: Silver Antimony Lead Zinc Gold
Copper

MINERALS

SIGNIFICANT: Stibnite Galena Pyrite Copper Sphalerite
Arsenopyrite Realgar Tetrahedrite
COMMENTS: Stibnite; disseminated in quartz, massive on vein walls.
ASSOCIATED: Quartz
ALTERATION: Sericite Fuchsite
ALTERATION TYPE: Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations
SHAPE: Irregular
MODIFIER: Fractured
DIMENSION: STRIKE/DIP: 070/50S TREND/PLUNGE:
COMMENTS: Three main veins, approximately 6 veins are parallel; numerous less
than 50 centimetre wide shoots off main veins cut by numerous faults.
Vein #1 fractured; offset is 35 metres. Dips vary from 50-65 degrees.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Permian-Triassic	Bridge River	Undefined Formation	Bendor Pluton
Cretaceous-Tertiary			

LITHOLOGY: Meta Greywacke
Hornfels
Quartzite
Granodiorite Dike
Aplite Dike
Granite Dike
Quartz Diorite Dike
Rhyodacite Dike
Cherty Breccia
Conglomerate

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Hornfels

INVENTORY

ORE ZONE: NO. 1 VEIN REPORT ON: Y
CATEGORY: Combined YEAR: 1966
QUANTITY: 70488 Tonnes
COMMODITY GRADE
Silver 342.8000 Grams per tonne
Lead 2.1000 Per cent
Antimony 3.0000 Per cent
COMMENTS: Total of proven, probable and possible reserves.
REFERENCE: Assessment Report 837.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 621
REPORT: RGEN0100

BIBLIOGRAPHY

River Mining Camp, Unpublished B.Sc Thesis, University of British
Columbia
Placer Dome File
Falconbridge File
EMPR OF 1998-10

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/20

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: Y

INVENTORY

ORE ZONE: NORTH REPORT ON: Y
CATEGORY: Indicated YEAR: 1983
QUANTITY: 10800 Tonnes
COMMODITY: Gold GRADE: 5.2560 Grams per tonne
COMMENTS: Cutoff grade is 3.11 grams per tonne, vertical depth 40 metres, strike length 40 metres, average vein width 2 metres.
REFERENCE: Assessment Report 11647.

CAPSULE GEOLOGY

The country rocks are Mississippian to Jurassic Bridge River Group metasediments and volcanics. Fine-grained chloritic meta-andesite and fragmented basalts and flows are intercalated with argillite, chert, phyllite and minor limestone. This package, represented mainly by bedded cherts on the property, is cut by hornblende-feldspar porphyry dykes probably related to the Tertiary to Cretaceous Bendor pluton.

There are two distinct types of occurrences, earlier molybdenum mineralization followed by later stibnite-gold mineralization. The molybdenum is concentrated as selvages along the margins of quartz-stringers forming a reticulate pattern in the hornblende feldspar porphyry. The mineralization extends into the country rock where molybdenum is fine grained and appears as a purplish-grey sheen.

The gold-bearing quartz-carbonate-stibnite veins transect all the rock types; they are well defined in the faulted metavolcanics and become more diffuse as they crosscut the porphyry stockwork. The veins range from 0.5 to 2 metres in width, dipping 40 to 70 degrees north along the general west-northwest trend which the dykes, fractures and shears all follow. Mineralization consists of massive coarsely crystalline stibnite with associated gold, arsenopyrite, pyrrhotite, chalcopyrite, limonite and traces of tetrahedrite and/or jamesonite(?). High but spotty values of silver are reported. Chloritic alteration is widespread with local sericite and abundant pyrite.

Assay values quoted for the main zone run 10.3 grams per tonne gold over 0.75 metres and 3.4 grams per tonne gold over 5 to 6 metres. The Main zone is about 100 metres wide. Assays in the North zone run 1.7 to 3.4 grams per tonne gold over 4 to 5 metres in quartz-stibnite veins; this was the source of ore used in an antimony mill which operated in 1974 producing about 4 tonnes of rough stibnite concentrate per day. The grade of stibnite was reported at 20 per cent over 2.1 metres reserves being 13.6 to 18.1 thousand tonnes (1974 Application for Production Permit).

Other workings on the property include several adits, and 8 diamond-drill holes put down in 1983 by Andaurex Res. Ltd. Indicated reserves for the Main zone in 1983 were reported to be 22,300 tonnes grading 7.4338 grams per tonne gold or 78,500 tonnes of ore grading 2.8927 grams per tonne (Assessment Report 11647). Indicated reserves for the North zone in 1983 were reported to be 10,800 tonnes grading 5.256 grams per tonne gold or 39,200 tonnes grading 2.3328 grams per tonne gold (Assessment Report 11647).

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GSC MAP 13-1973
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291
N MINER Dec 2, 1982

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/04

CODED BY: GSB
REVISED BY: AFW

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE068**

NATIONAL MINERAL INVENTORY: 092J15 Co1

NAME(S): **LITTLE GEM (L.7567)**, NORTHERN GEM, GEM,
GUN CREEK

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 47 N
LONGITUDE: 122 57 17 W
ELEVATION: 1900 Metres

NORTHING: 5638304
EASTING: 503184

LOCATION ACCURACY: Within 500M

COMMENTS: On southeast slope, approximately 215 metres above Roxy Creek, a tributary off Gun Creek, north of Mount Penrose and west of Gun Lake.

COMMODITIES: Cobalt Gold Uranium Molybdenum Arsenic

MINERALS

SIGNIFICANT: Danaite Lollingite Safflorite Arsenopyrite Molybdenite
Gold Skutterudite Uraninite Cobaltite Scheelite

COMMENTS: Both arsenopyrite and lollingite contain some cobalt; gold is present as the native metal.

ASSOCIATED: Biotite Hornblende Apatite Allanite Monazite
Orthoclase Quartz Bastnaesite

COMMENTS: Both metallic and gangue mineral assemblages are of the type commonly associated with high temperature, or 'hypothermal' veins.

ALTERATION: Quartz Erythrite Sericite Chlorite Calcite
Limonite Kaolinite

ALTERATION TYPE: Sericitic Oxidation Argillic Chloritic Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I15 Classical U veins 114 Five-element veins Ni-Co-As-Ag±(Bi, U)
L04 Porphyry Cu ± Mo ± Au

SHAPE: Irregular
DIMENSION: 365 x 120 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Lenses a few centimetres to 2 metres wide strike easterly and dip steeply south.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Cretaceous Mesozoic-Cenozoic			Eldorado Pluton Coast Plutonic Complex

LITHOLOGY: Granodiorite
Quartz Diorite
Diorite
Gabbro
Vein
Feldspar Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: LITTLE GEM REPORT ON: Y
CATEGORY: Indicated YEAR: 1979
QUANTITY: 27705 Tonnes
COMMODITY GRADE
Gold 21.7400 Grams per tonne
Cobalt 2.0450 Per cent
COMMENTS: Calculated from 1219 metres of diamond drilling over 1.5 metres width.
REFERENCE: George Cross News Letter No.87, 1979.

INVENTORY

QUANTITY: 4740 Tonnes
 COMMODITY _____ GRADE _____
 Gold 23.0400 Grams per tonne
 Cobalt 2.9740 Per cent
 Uranium 0.2120 Per cent
 COMMENTS: U3O8 0.2499 per cent.
 REFERENCE: Allen 1955.

ORE ZONE: LITTLE GEM REPORT ON: Y

CATEGORY: Unclassified YEAR: 1975
 QUANTITY: 18140 Tonnes
 COMMODITY _____ GRADE _____
 Gold 22.6400 Grams per tonne
 Cobalt 3.0000 Per cent
 Uranium 0.2000 Per cent
 REFERENCE: Canadian Mines Handbook 1974-75, page 251.

CAPSULE GEOLOGY

The Little Gem prospect, a hypothermal cobalt-sulpharsenide uranium and gold vein, 2.3 kilometres east northeast of Dickson Peak, lies within the margin of the Jurassic to Tertiary Coast Plutonic Complex (Cretaceous Eldorado pluton). Host rocks consist of granodiorite, minor hornblende-biotite-quartz diorite, diorite and gabbro, which are intruded by feldspar porphyry dykes. A broad, east trending and steeply south dipping fault zone cuts the granodiorite near the eastern contact with older sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex (Group).

Shears in the zone contain two parallel ore shoots ranging in width from a few centimetres to a few metres. Irregular lenses of almost solid sulphides contain cobalt and gold values in association with danaite, loellingite, safflorite, arsenopyrite, scheelite and minor molybdenum. Uranium, in the form of uraninite, occurs in the gangue along with coarse-grained allanite, apatite, feldspar, quartz, chlorite, sericite, calcite, erythrite and limonite. Gold occurs mainly as microscopic veinlets of the native metal within and adjacent to the sulpharsenide minerals. Surrounding the ore, strongly bleached and sericitized granodiorite containing disseminated sulphides, residual quartz, feldspar and kaolin grades into unaltered granodiorite. The metallic minerals occur with the gangue in coarsely crystalline masses but are in general younger than most of the gangue minerals. The combination of the batholithic host rocks and the association of uraninite with hornblende, biotite, apatite, allanite, monazite, orthoclase, cobalt sulpharsenides, arsenopyrite and molybdenite is indicative of high temperature, possibly magma-derived, hydrothermal fluids.

Two adits follow the ore shoots. The upper adit, sampled over 36 metres and 90 centimetres width, graded 26.2 grams per tonne gold, 0.39 per cent uranium and 3.1 per cent cobalt; the lower adit, sampled over 1.8 metres, graded 54.8 grams per tonne gold, 0.3 per cent uranium, and 3.2 per cent cobalt (Rutherford, 1952 - Property File). Allen (1955), in Property File, reports an indicated resource of 4740 tonnes, grading 23.04 grams per tonne gold, 2.974 per cent cobalt and 0.212 per cent uranium (0.2499 per cent U3O8). In 1979, reserves were calculated at 27,705 tonnes grading 21.74 grams per tonne gold, and 2.045 per cent cobalt (George Cross News Letter No. 87, 1979). Stevenson, in 1948, estimated probable ore of 894 tonnes grading 0.18 per cent uranium (Property File). The Canadian Mines Handbook 1974-75 records 18,140 tonnes averaging 22.64 grams per tonne gold, 3.0 per cent cobalt and 0.2 per cent uranium (Canadian Mines Handbook 1974-75, page 251). Arsenic grades 25 to 27 per cent (Assessment Report 15451).

The deposits were discovered and staked by William Haylmore and W.H. Ball in 1934. Their interests were bought by J.M. and R.R. Taylor in 1937. The United States Vanadium Corporation optioned the property in 1937 and drove the upper tunnel. All work in Canada was terminated in 1939 by the above named company and the exploratory program on the Northern Gem was not completed. During the winter of 1939 the lower tunnel was driven by contractors for J.M. and R.R. Taylor. In 1940 the property was optioned for a short time by Bralorne Mines and the two short raises were driven from the lower tunnel. The lack of a treatment process, and indefinite marketing possibilities at that time, resulted in the option being dropped by Bralorne Mines. In 1952 Estella Mines optioned the property. A switchback road was completed from Gun Creek bridge to the camp and twelve holes were diamond drilled from the lower tunnel. Estella Mines were forced to drop the option when they were unable to meet

CAPSULE GEOLOGY

the due payment in November 1953 and it was not possible to secure an extension from the owners. Northern Gem Mining Corporation was formed in December 1955 for the purpose of acquiring and developing the property. Work was commenced on the road in June, on the camp in August and on the showings shortly thereafter. Work was terminated for the winter October 23rd because of the unusually early arrival of winter snow at the property.

Major Resources Ltd. held the property in 1979 and conducted airborne magnetometer, VLF-EM and radiometric surveys. Anvil Resources Ltd. held the property in 1986 and drilled 2 holes totalling 373.8 metres.

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GSC EC GEOL *#16, pp. 43,44,232
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GSC P 43-15 (20); 73-17; 77-2; 77-50
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DATE CODED: 1985/07/24
DATE REVISED: 1991/02/21

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

minor arsenopyrite and pyrite occur in a gangue of quartz and carbonate. The quartz veins are up to 2.5 metres wide and strike 200 degrees, dipping 20 to 30 degrees to the west. Veins are parallel to subparallel to the regional foliation. The veins have been tightly folded locally, or may have a sheeted appearance. Aphanitic, sericitized dikes occur within the mineralized zone. A sample of ore material (mostly arsenopyrite) taken from the old mill site is reported to have yielded 25.03 grams per tonne gold (Assessment Report 23945).

In 1996, nine diamond-drill holes totalling approximately 1800 metres tested a 600 by 100 metre gold-in-soil anomaly.

There has been some confusion between this property and the Golden Cache (092JNE094) to the west. Some records list the Ample as part of the Golden Cache group (there may have been an adit called the Ample). Production figures are included with the Golden Cache.

Homestake Canada Inc. drilled (14 holes, 2728 metres) on the Cougar zone in 1997. An 8-metre intersection returned 11.75 grams per tonne gold (GCNL #158 (Aug.18), 1998). Drilling in 1998 brought total drilling to 21 holes totalling 4200 metres. This outlined an area of gold mineralization over about 200 metres in length and 200 metres down-dip.

Gold-Ore Resources Limited optioned the property in 1998 and completed a 9-hole, 907-metre drill program in 1999. They found another zone, about 2.6 kilometres along strike.

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GSC P 73-17
GCNL #158(Aug.18), 1998
N MINER May 4, 1998
PR REL Quartz Mountain Resources Ltd., Jan.27, 2003
WWW <http://www.infomine.com/>

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE070**

NATIONAL MINERAL INVENTORY: 092J15 Asb2

NAME(S): **MOUNT PENROSE**, PH

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 52 55 N
LONGITUDE: 122 57 50 W
ELEVATION: 2784 Metres

NORTHING: 5636697
EASTING: 502540

LOCATION ACCURACY: Within 1 KM

COMMENTS: On ridge separating north fork of Walker Creek and Roxey Creek, north of Mount Penrose.

COMMODITIES: Asbestos

MINERALS

SIGNIFICANT: Chrysotile
ALTERATION: Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.
TYPE: M06 Ultramafic-hosted asbestos
SHAPE: Irregular
COMMENTS: Veinlets in parallel swarms; pinch & swell abruptly; strike north - south and are 20 to 60 centimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous Paleozoic			Coast Plutonic Complex Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Granodiorite
Granodiorite Dike
Vein
Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Asbestos occurs as dark green to yellow green cross fibre chrysotile in short veinlets that pinch and swell abruptly. The veinlets occur in parallel swarms in scattered parallel zones 20 to 60 centimetres wide. The zones are widely spaced and strike north across a small irregularly elongate serpentinite mass, 240 metres wide by 600 metres long, that is probably correlative with the Permian and older Shulaps Ultramafic complex. The serpentinite is cut by numerous thin irregular granodiorite dykes; the surrounding rock is predominantly granodiorite of the Jurassic to Tertiary Coast Plutonic Complex except for small patches of sediments reported to the southeast. The average fibre length of the chrysotile is 0.32 centimetres, with rare 1.27 centimetre material. The overall fibre content of the serpentinite is considered very low.

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GSC OF 482
GSC P 77-2 (Sample GSC 76-49)
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/04

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

The Bristol prospect straddles Tommy Creek, a stream which drains northerly into Carpenter Lake. The area in which the prospect occurs is underlain by cherty quartzites, argillites, metabasalt and crystalline limestone lenses of the Mississippian to Jurassic Bridge River Complex (Group). The stratigraphy generally strikes north northeast and dips steeply west although some large scale folding along northwesterly-trending axes is also evident. The sequence is intruded by two plutons probably related to the Cretaceous to Tertiary Bendor pluton, each approximately one kilometre in diameter and consisting of granodiorite and porphyritic granite. Minor amounts of felsic, mafic and ultramafic dykes also occur.

Gold mineralization occurring in the vicinity of the Bristol workings is hosted by five shear zones (East, Hangingwall, Main, Footwall, Tommy Creek) in which the rocks are variably altered to an assemblage of quartz, carbonate, clay, pyrite, pyrrhotite and limonite. The principal rock type within the shear zones is a cherty quartzite. The Main shear zone is believed to contain fairly uniform but low gold content but with some lenses or pipes of high-grade gold and/or gold-tungsten. The shear zones trend from 32 to 37 degrees and vary from about 0.4 to 6 metres in width. They dip steeply to the east and are relatively continuous. The shear fillings usually consist of fractured quartzite banded by gouge seams; coatings and veinlets of calcite are common and stringers of quartz less common.

The sulphides include major amounts of pyrite, arsenopyrite and marcasite together with very minor amounts of sphalerite, galena and chalcopyrite. Tungsten occurs in the form of scheelite which generally can not easily be detected in hand specimen. Gold occurs mainly in arsenopyrite and pyrite with lesser amounts within quartz; the highest grade ore was reported to contain small quartz stringers which contained pyrite, arsenopyrite and large grains of scheelite. Ore grades from the workings vary considerably.

By the early 1940's, the underground workings consisted of 3 adits. A 23 kilogram sample taken from a winze assayed 0.16 per cent tungstic oxide (WO₃), 48 grams per tonne gold and 20.6 grams per tonne silver (Bulletin 10, page 106). The highest assay from one of 17 drill holes reported from 1988 contained 7.5 grams per tonne gold over a true width of 0.5 metre in the Tommy Creek shear zone (Assessment Report 18618).

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DATE CODED: 1985/07/24
DATE REVISED: 1991/07/10

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE072**

NATIONAL MINERAL INVENTORY: 092J10 Au1

NAME(S): **CONBRA**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 42 25 N
LONGITUDE: 122 42 02 W
ELEVATION: 1740 Metres

NORTHING: 5617280
EASTING: 521144

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located on steep southeast side of Chism Creek, which flows north-east into Cadwallader Creek.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Malachite

COMMENTS: "Rust", probably limonite.

ASSOCIATED: Quartz

ALTERATION: Limonite Malachite

ALTERATION TYPE: Oxidation Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Permian
Paleozoic

GROUP

Cadwallader

FORMATION

Pioneer

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex
President Ultramafics

LITHOLOGY: Augite Diorite
Greenstone
Serpentinite
Quartz Vein

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

An east trending tongue of augite diorite of the Permian Bralorne Igneous Complex is bordered on the north by massive greenstone of the Upper Triassic Pioneer Formation (Cadwallader Group) and on the south by serpentinite of the President Ultramafics, probably corellative with the Permian and older Shulaps Ultramafic Complex. The 225-metres wide tongue contains quartz veins both in carbonate-altered zones and in unaltered diorite. The only mineralization noted is "rust" and malachite; assays are reported to run no higher than 0.34 gram of gold per tonne (Minister of Mines Annual Report 1948, page 102).

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/04

CODED BY: GSB
REVISED BY: AFW

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE073**

NATIONAL MINERAL INVENTORY: 092J15 Au5

NAME(S): **DAUNTLESS**, GOLDBELT, GOLDEN SIDEWALK

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 54 29 N
LONGITUDE: 122 44 56 W
ELEVATION: 755 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5639630
EASTING: 517655

LOCATION ACCURACY: Within 500M

COMMENTS: Dauntless adit (Assessment Report 14740).

COMMODITIES: Gold Silver Zinc

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Stibnite Sphalerite
ASSOCIATED: Quartz Calcite
ALTERATION: Calcite Ankerite Sericite Mariposite
ALTERATION TYPE: Carbonate Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Breccia
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: STRIKE/DIP: 055/80N TREND/PLUNGE:
COMMENTS: Vein 3 metres wide by 75 metres long.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Chert
Argillite
Quartzite
Sediment/Sedimentary Breccia
Andesite
Quartz Vein
Feldspar Porphyry Dike
Felsite Dike
Serpentinized Ultramafic
Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1973

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

5.1400

Grams per tonne

Gold

22.3000

Grams per tonne

COMMENTS: At portal, east side (footwall) across 1.52 metres.

REFERENCE: Assessment Report 11648.

CAPSULE GEOLOGY

The Dauntless polymetallic vein is located 100 metres southeast of Mawson Pond and is hosted by Mississippian to Jurassic Bridge River Complex sedimentary and volcanic rocks which consist of chert, cherty argillite, quartzite, breccia and andesitic to basaltic greenstone. The rocks strike northwest, dip southwest and are intruded by north trending, 3 to 30-metres wide, Cretaceous and/or Tertiary feldspar porphyry, quartz porphyry and felsic dykes. A coarse-grained feldspar porphyry dyke cuts the sediments just west of the portal. Lenses of serpentinized ultramafic rocks occur along faults and fractures. A 3 to 5-metre wide shear zone (striking northeast and dipping steeply northwest) crosscuts black argillaceous chert and andesite with sharp slickensided contacts.

Fine-grained crystalline arsenopyrite is disseminated as rough bands in quartz-carbonate gangue and contains stibnite needles and

CAPSULE GEOLOGY

fine-grained pyrite. Alteration is calcitic or dolomitic with associated sericite in siliceous rocks and ankeritic with mariposite in mafic wallrocks. An assay from the footwall across 1.52 metres of vein at the portal graded 22.3 grams per tonne gold and 5.14 grams per tonne silver (Assessment Report 11648). Another assay across 3.04 metres of combined footwall and hanging wall ran 12.6 grams per tonne gold and 3.43 grams per tonne silver (Assessment Report 11648). The values are consistent throughout the length of the vein.

Other minor showings of similar nature ie. pyrite and sphalerite in quartz and calcite stringers, occur approximately 55 and 85 metres west of the Dauntless portal.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
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GSC MEM 130; 213
GSC P 43-15, 73-17
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #246, 1987
V Stockwatch, Dec. 22, 1987
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/22

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE074**

NATIONAL MINERAL INVENTORY:

NAME(S): **HORSESHOE BEND PLACER**, BROWN HYDRAULIC MINE, BIG BEND

STATUS: Past Producer Open Pit

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J16E

BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 35 N

LONGITUDE: 122 09 15 W

ELEVATION: 405 Metres

NORTHING: 5634566

EASTING: 559530

LOCATION ACCURACY: Within 500M

COMMENTS: At a prominent bend in Bridge River, about a kilometre downstream from the mouth of the Yalakom River.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Gold

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated

CLASSIFICATION: Placer

TYPE: C01 Surficial placers

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

Quaternary

Paleozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Glacial/Fluvial Gravels

Shulaps Ultramafic Complex

LITHOLOGY: Gravel
Serpentinite
Slate

HOSTROCK COMMENTS: Bedrock beneath glacio-fluvial gravels is serpentinite of the Shulaps Ultramafic Complex and slate of the Bridge River Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pavilion Ranges

CAPSULE GEOLOGY

The Horseshoe Bend gold placer deposit on the Bridge River is one kilometre southeast of the confluence of the Yalakom and Bridge rivers and was probably worked as early as 1860. Production figures of gold from the Bridge River up to 1902 were included with those recorded for the Fraser River and, consequently, no pre-1902 production figures for the Horseshoe Bend placer are available. Between 1902 and 1945, 31,290 grams of placer gold were recovered from the river (including the Horseshoe Bend placer).

The gravels of the Bridge River at Horseshoe Bend are of four types, as follows:

- 1) Gravels within the bed of the river. These are poorly sorted with boulders up to several tonnes within finer material. These gravels have been worked in isolated patches.
- 2) Bank and bench gravels between low water and the river banks. Gold content of these gravels improved at depth but was difficult to reach.
- 3) Gravel in cliffs which form the present banks of the river. These gravels consist of unconsolidated fluvial gravels interbedded with cemented gravels, or conglomerate. Gold in these gravels is distributed throughout.
- 4) Gravels of the ancient river channel. Bedrock to these gravels is Shulaps serpentinite and Bridge River slate.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Maps & plans by B.C. Alluvials Ltd.)
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 636
REPORT: RGEN0100

BIBLIOGRAPHY

CIM Canadian Geology Journal Vol. 1, No. 1, 1986, pp. 21-30

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/25

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 639
REPORT: RGEN0100

BIBLIOGRAPHY

GSC MAP 430A
GSC OF 482
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Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/25

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE075**

MINFILE NUMBER: **092JNE076**

NATIONAL MINERAL INVENTORY: 092J15 Au11

NAME(S): **PEERLESS (L.6770), ZINC, GOLDEN SIDEWALK**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 55 32 N
LONGITUDE: 122 47 25 W
ELEVATION: 1040 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Peerless adit (Assessment Report 5325)

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5641567
EASTING: 514740

COMMODITIES: Gold Silver Zinc Lead

MINERALS

SIGNIFICANT:	Sphalerite	Gold	Silver	Galena	Pyrite
ASSOCIATED:	Ankerite	Carbonate	Quartz	Calcite	
ALTERATION:	Carbonate	Ankerite			
ALTERATION TYPE:	Carbonate				
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER: Vein Massive Podiform Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
SHAPE: Irregular
DIMENSION: STRIKE/DIP: 045/50N TREND/PLUNGE:
COMMENTS: Vein follows shear. Dips vary from 45 degrees to 80 degrees north - west.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Chlorite Andesite
Vein
Argillite
Cherty Quartz

HOSTROCK COMMENTS: Chloritized andesite, near contact with argillite and cherty quartzite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River	
METAMORPHIC TYPE: Regional	RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: BETA REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1988
SAMPLE TYPE: Drill Core
COMMODITY
Silver 200.9200 Grams per tonne
Gold 58.2900 Grams per tonne
COMMENTS: From a 1.5-metre intersection in drill hole 87-8.
REFERENCE: Assessment Report 17062.

CAPSULE GEOLOGY

The Peerless polymetallic vein is approximately 0.5 kilometre southwest of the south end of Tyaughton Lake. The area is underlain by Mississippian to Jurassic Bridge River Complex (Group). Pyrite, sphalerite and small amounts of galena, with associated gold and silver are found as massive streaks and pods in thin, 10 to 30-centimetre long quartz-ankerite-calcite veins filling fissures in chloritized andesite. The irregular shears strike northeast for approximately 100 metres, dipping to the northwest. Samples yielded 10.3 grams per tonne gold, 92.6 grams per tonne silver and 8.6 per cent zinc, in drift samples across 0.6 metre. Similar mineralization occurs along the sheared contact between the volcanics and sediments consisting of argillite and cherty quartzite interbeds. In 1987, rotary drilling carried out on the Beta zone, about 300 metres east of the Peerless adit, intersected 1.5 metres of mineralization grading 58.29 grams per tonne gold and 200.92 grams per tonne

CAPSULE GEOLOGY

silver (Assessment Report 17062).

BIBLIOGRAPHY

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EMPR EXPL 1988-C123
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1974-206; 1975-E110
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (*Report by C.A.R. Lammle, 1974; Prospectus, Manhattan
Mineral Corp., 1988)
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #188, #202, #207, #233, 1984; #163, 1985; #246, 1987; #198, #210,
#216, 1988
V STOCKWATCH Dec. 22, 1987

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/25

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE077**

NATIONAL MINERAL INVENTORY: 092J15 Sb3

NAME(S): **GOLDEN**, HELM FR. (L.6328), DREAM
DOMINION, GOLDEN QUEEN (L.6323), GOLDEN KING (L.7077)

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 54 00 N
LONGITUDE: 122 45 35 W
ELEVATION: 823 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Adit on Lot 7076 (Assessment Report 5364).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5638732
EASTING: 516896

COMMODITIES: Gold Silver Antimony

MINERALS

SIGNIFICANT: Stibnite Pyrite Arsenopyrite Sphalerite
ASSOCIATED: Quartz Calcite Mariposite
ALTERATION: Siderite
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations
DIMENSION: STRIKE/DIP: 160/70W TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Tertiary	Bridge River	Undefined Formation	Unnamed/Unknown Informal

LITHOLOGY: Greenstone
Argillite
Chert
Quartz Vein
Feldspar Porphyry Dike
Peridotite
Serpentinized Peridotite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1974
SAMPLE TYPE: Grab
COMMODITY

COMMODITY	GRADE	
Silver	51.8000	Grams per tonne
Gold	16.1000	Grams per tonne
Antimony	3.3200	Per cent

COMMENTS: From quartz shear with high percentage stibnite.
REFERENCE: Geology, Exploration and Mining in B.C., 1974, page 206.

CAPSULE GEOLOGY

The Golden prospect is one kilometre northeast of the mouth of Gun Creek at Carpenter Lake. The main occurrence is a vein explored by an adit striking southeast and dipping steeply west. It is hosted within steeply inclined, northwest striking Mississippian to Jurassic Bridge River Complex (Group) siderite-altered argillites, greenstone and chert. The 15 to 60-centimetre wide vein contains lenticular, coarsely crystalline masses of stibnite; gold is associated with pyrite and arsenopyrite in the vein. Samples assay 16.1 grams per tonne gold, 51.8 grams per tonne silver and 3.32 per cent antimony (Geology, Exploration and Mining in British Columbia 1974, page 206). The greenstone hosting the deposit is intruded by dykes to the north and south. A quartz vein containing pyrite and mariposite occurs in a

CAPSULE GEOLOGY

strong fissure along the contact of the greenstone with a coarsely porphyritic dyke. Bedded sediments also host narrow discontinuous veins of stibnite, pyrite, arsenopyrite and sphalerite in quartz and calcite gangue.

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EMPR GEM *1974-206
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 430A
GSC MEM 130; 213, p. 64
GSC OF 482
GSC P *43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/25

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE078**

NATIONAL MINERAL INVENTORY: 092J16 Hg1

NAME(S): **RED EAGLE** EAGLE, EAGLE MERCURY

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J16W

BC MAP:

LATITUDE: 50 56 10 N

LONGITUDE: 122 16 00 W

ELEVATION: 900 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Red Eagle consolidated with Golden Eagle (092JNE 062) in 1966 and became the Eagle property. The location herein is that of the Red Eagle adit (Assessment Report 16280).

UTM ZONE: 10 (NAD 83)

NORTHING: 5642976

EASTING: 551528

COMMODITIES: Mercury

MINERALS

SIGNIFICANT: Cinnabar

ASSOCIATED: Quartz Dolomite Pyrite

ALTERATION: Ankerite

ALTERATION TYPE: Carbonate Quartz-Carb.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

Disseminated

Stockwork

CLASSIFICATION: Hydrothermal

Epithermal

Epigenetic

TYPE: E01 Almaden Hg

I08 Silica-Hg carbonate

SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Permian

Bralorne Igneous Complex

LITHOLOGY: Massive Greenstone
Pillow Greenstone
Greenstone Breccia
Diabase

HOSTROCK COMMENTS: Host rocks are greenstone and greenstone breccia informally known as the East Liza Igneous Complex (correlated with Bralorne complex).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: EAGLE

REPORT ON: Y

CATEGORY: Combined

YEAR: 1971

QUANTITY: 1658000 Tonnes

COMMODITY

GRADE

Mercury

0.1950

Per cent

COMMENTS: Indicated and measured ore, including the Golden Eagle mineralization (092JNE062).

REFERENCE: Assessment Report 16280.

CAPSULE GEOLOGY

The Red Eagle mercury prospect is to the southwest of the Yalakom River, 0.5 kilometre above its confluence with Shulaps Creek.

The occurrence is within massive to pillowed green to reddish brown greenstone and greenstone breccia with irregular bands of diabase. These rocks are informally referred to as the East Liza Igneous Suite which is, in turn, tentatively correlated with the Permian Bralorne Igneous Complex.

The rocks are considerably fractured and veined by ankerite, dolomite and quartz. Cinnabar occurs as narrow stringers, blebs, disseminated grains and films on fracture planes within the greenstone and greenstone breccia. Pyrite is sparsely disseminated.

Two adits and numerous trenches explore the prospect; in 1941 and 1942, 232 kilograms of mercury were produced from 23 tonnes of ore. In 1967 the Red Eagle prospect was amalgamated with the Golden Eagle prospect (092JNE062) across the Yalakom River. Reserves for

CAPSULE GEOLOGY

the whole area are estimated at 641,702 tonnes at a grade of 10.21 kilograms of per tonne mercury (1 per cent) (George Cross News Letter No.122, 1971). Indicated and measured ore has been estimated at 1,658,000 tonnes grading 0.195 per cent mercury (Assessment Report 16280).

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EMPR ASS RPT *16280
EMPR BULL 5, p. 68; 32, p. 52
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1969-188; 1971-312
EMPR INDEX 3-Table 1
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GCNL *#122, 1971 (Reserves)

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/05

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE079**

NATIONAL MINERAL INVENTORY:

NAME(S): **BRETT**, NATIONAL, MCGILLIVRAY CREEK,
ANDERSON LAKE, GOLDEN CONTACT, MIRNE,
REYNAUD

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:
LATITUDE: 50 37 30 N
LONGITUDE: 122 26 50 W
ELEVATION: 780 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of mine portal (Bulletin 1).

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5608271

EASTING: 539100

COMMODITIES: Gold Silver Copper Zinc Lead

MINERALS

SIGNIFICANT: Gold Pyrite Arsenopyrite Chalcopyrite Sphalerite
Galena
ASSOCIATED: Quartz Ankerite
ALTERATION: Sericite Mariposite Calcite Ankerite
ALTERATION TYPE: Sericitic Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I01 Au-quartz veins
SHAPE: Regular
MODIFIER: Other
COMMENTS: The vein, which has a ribboned structure, is an average 2 metres wide and strikes north with steep west dip.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE: Paleozoic-Mesozoic Cretaceous-Tertiary
GROUP: Bridge River
FORMATION: Undefined Formation
IGNEOUS/METAMORPHIC/OTHER: Bendor Pluton

LITHOLOGY: Argillite
Slate
Phyllite
Tuff
Limestone
Granodiorite
Quartz Vein

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: UNDERGROUND WORKINGS
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Channel
COMMODITY: Silver 65.1400 Grams per tonne
Gold 293.0000 Grams per tonne
COMMENTS: From a 2.4-metre channel sample.
REFERENCE: Minister of Mines Annual Report 1962, page 27.

CAPSULE GEOLOGY

The Brett mine is hosted in metasediments consisting of argillite, slate, tuffs and minor limestone of the Mississippian to Jurassic Bridge River Complex (Group) which is intruded by granodiorite tongues and stocks of the Cretaceous to Tertiary Bendor pluton. Slates are schistose and fissured in all directions. The fissures are frequently quartz filled.
The mine was in production from 1900 to 1904, in 1910 and again in 1962. The total amount of ore extracted was 9177 tonnes which yielded 21.4 kilograms of gold. The mine was worked on several levels but most of the production came from the "49er" level.

CAPSULE GEOLOGY

The deposit consists of an irregular, ribboned quartz-ankerite vein, averaging 4 to 7 metres in width, striking north and dipping steeply west and conformable to the black slates and interbedded carbonaceous phyllite. Visible gold is concentrated locally and is occasionally coarse. Pyrite is the main sulphide in the vein, with some intersections showing arsenopyrite, chalcopyrite, sphalerite and sparse galena. Alteration minerals include sericite, mariposite, calcite and ankerite.

Due to the characteristically high amount of coarse free gold in the ore, additional cuts of the same crushed sample gave assay results that varied widely. A 2.4-metre channel sample (Sample 1815) assayed four times gave: 1145 grams per tonne gold and 528 grams per tonne silver, 5.8 grams per tonne gold and trace silver, 293 grams per tonne gold and 65.14 grams per tonne silver and 2.06 grams per tonne gold and 3.42 grams per tonne silver (Minister of Mines Annual Report 1962, page 27).

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- EMPR BULL *1, 1932, p. 72
- EMPR EXPL 1974-228, 1976-C250
- EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
- EMPR OF 1988-3; 1989-4; 1990-10
- EMPR PF (Reports by: B.W.W. McDougall, 1933, C.M. Campbell, 1934, R.R. Wilson, 1934, J.T. Mandy, 1949, W.S. Ellis, 1962, S.S. Holland, 1962, M.W. Graham, 1963 (plus various maps & assay plans; Pictograph report on Golden Contact mine by R.A. Brooke, 1951)
- GSC MEM 130, p. 91
- GSC OF 482
- GSC P 77-2 (Sample GSC 76-50)
- GSC SUM RPT 1933A, p. 71
- GCNL #43, 1962
- PR REL March 14, 1962 (by Minister of Mines)
- Daily Colonist (Victoria) March 2, 1962
- The Province (Vancouver) Feb 16, 1962

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/21

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE080**

NATIONAL MINERAL INVENTORY:

NAME(S): **DIORITE** VEEGEE, MAC

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 37 25 N
LONGITUDE: 122 31 15 W
ELEVATION: 1372 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5608080
EASTING: 533894

LOCATION ACCURACY: Within 500M

COMMENTS: Adit (Assessment Report 19276).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Gold
ASSOCIATED: Quartz Calcite Mariposite Talc Chlorite
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: Metres STRIKE/DIP: 180/77W TREND/PLUNGE:
COMMENTS: A 4-metre wide vein strikes north-northwest and dips steeply west.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Permian	Cadwallader	Hurley	Bralorne Igneous Complex

LITHOLOGY: Massive Diorite
Calcareous Phyllite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Diorite showing is located just north of McGillivray Creek at the southern end of the Bendor Range. Following the discovery of gold in the Bridge River area in 1896 and during the subsequent gold rush of the 1930s, the Anderson Lake area saw extensive exploration. The Anderson Lake mine (092JNE079) was discovered in 1897. Six adits were driven along a north trending quartz vein. The Gold Hill (092JNE081) and Diorite showings were explored by adits and pits between 1932 and 1933. At the Diorite showing, a 4.5-metre wide ribboned quartz-calcite vein striking north, was explored by a 120-metre adit. Quartz veins on Prospector's Peak (092JNE159) and other quartz veins near Silicon Cirque (092JNE156) were explored by trenches and pits probably at the same time. Stream sediment and heavy mineral sampling were conducted in the vicinity of the Silicon Cirque showing by Silver Standard Mines in 1979. Noranda Mines and Placer Development confirmed several anomalies. In 1981, N. McConechy restaked the ground covering the old Diorite showing as the Mac claims. The surrounding area was staked by X-Cal Resources Ltd. in 1983. In 1985, mapping by Hudson Bay Exploration and Development Co. Ltd. confirmed the extension of the Cadwallader shear through the property. X-Cal Resources Ltd. drilled eight drillholes totalling 950 metres in the South Fork area. Six of these drillholes tested the Switchback vein at depth. One drillhole also tested the Gold Hill occurrence. An electromagnetic (VLF-EM) anomaly along South Fork Creek was tested by drillhole DDH-8. Quartz stringers with pyrite and sphalerite were intersected adjacent to albite dikes. Canada Tungsten Mining Corp. re-logged the drill core in 1987 and several new gold soil anomalies were discovered along a major lineament. In 1989, Teck Corp. optioned X-Cal's property and conducted a comprehensive exploration program. In 1990, Cogema Canada Ltd. acquired X-Cal's property and conducted property exploration in 1991. In the region of the Diorite showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the

CAPSULE GEOLOGY

Mississippian to Jurassic Bridge River Complex and the Upper Triassic Cadwallader Group. Linear, altered serpentinite zones called the President Ultramafics, correlative with the Permian and older Shulaps Ultramafic Complex, mark faults which have controlled the emplacement of diorite of the Permian Bralorne Igneous Complex. The above sequence lies between bodies of the Jurassic to Tertiary Coast Plutonic Complex and outlying bodies of Cretaceous to Tertiary Bendor pluton granodiorite.

The vein occurs within a body of diorite of the Bralorne Igneous Complex (formerly called the Bralorne Intrusions) which has been structurally emplaced into Upper Triassic Hurley Formation, Cadwallader Group calcareous phyllite developed along the Cadwallader shear zone.

The vein, which strikes to the north and dips steeply to the west, comprises quartz, mariposite, talc and chlorite containing low gold values generally. Wallrock to the vein is intensely silicified and schistose.

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EMPR ASS RPT 11749, *14382, 11876, *19276, 19604, 22281, 22951
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
EMPR PF (Miscellaneous maps)
GSC OF 482
GSC SUM RPT *1933, p. 72

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE081**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOLD HILL**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 36 39 N
LONGITUDE: 122 32 45 W
ELEVATION: 1410 Metres

NORTHING: 5606648
EASTING: 532134

LOCATION ACCURACY: Within 500M

COMMENTS: South of the south fork of McGillivray Creek (Minister of Mines Annual Report 1933, page 261).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Regular

STRIKE/DIP: 170/70E

TREND/PLUNGE:

COMMENTS: Vein is reported up to 9 metres wide by 180.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Argillite
Phyllite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: OPENCUT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1933

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

4.1100

Grams per tonne

COMMENTS: Sample from opencut.

REFERENCE: Minister of Mines Annual Report 1933, page A261.

CAPSULE GEOLOGY

A mineralized quartz vein is hosted in argillites and grey argillaceous phyllite of the Mississippian to Jurassic Bridge River Complex (Group). The 90-centimetre to 9-metre wide vein is conformable to bedding, striking southeast and dipping steeply east. It has been traced for 180 metres and eventually splits into several veins. The argillite is silicified for 2.5 metres on either side of the vein. The vein is well defined and cut by jointing running parallel to its length. Pyrite is contained in the quartz and in the surrounding phyllite. A sample from the vein assayed 4.11 grams gold per tonne (Minister of Mines Annual Report 1933, page 261). As of 1935, an adit had been driven in for 33.5 metres with two crosscuts running off, one 6 metres to the east and the other 36.5 metres to the west.

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EMPR ASS RPT 11749, 14382, 19606
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 651
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT *1933, Part A, p. 73

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/17

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE082**

NATIONAL MINERAL INVENTORY:

NAME(S): **BLUE BELL, PENNY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 33 49 N
LONGITUDE: 122 25 35 W
ELEVATION: 1290 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5601456
EASTING: 540626

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the southeast side of Anderson Lake, northeast of Wade (or Keddy) Creek.

COMMODITIES: Silver Lead Zinc Gold

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Argentite

COMMENTS: Unidentified manganese mineral.

ASSOCIATED: Quartz Calcite

ALTERATION: Pyrite

ALTERATION TYPE: Pyrite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

DIMENSION: Metres STRIKE/DIP: 345/69E

TREND/PLUNGE:

COMMENTS: The zone of mineralization is 30 by 150 metres along a north-northwest strike and dipping 69 degrees east.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Bendor Pluton
Cretaceous-Tertiary			

LITHOLOGY: Greenstone
Chert
Basalt
Argillaceous Siltstone
Phyllite
Biotite Schist
Felsite
Quartz Diorite

HOSTROCK COMMENTS: The Bridge River Complex is Mississippian to Jurassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1995
SAMPLE TYPE:	Chip		
COMMODITY		GRADE	
Silver		14.4000	Grams per tonne
Lead		0.3200	Per cent
Zinc		0.1200	Per cent

COMMENTS: Chip sample 66559 over 0.2 metre in Wade Creek canyon.
REFERENCE: Assessment Report 24126.

CAPSULE GEOLOGY

The Blue Bell showing is located on the southeast side of Anderson Lake near the mouth of Wade Creek, 3 kilometres northeast of D'Arcy, British Columbia.

Two adits were driven on polymetallic mineralization in 1925. In 1965, Bralorne Mines examined the property and recommended further work based on geological mapping and sampling results.

In the region of the Blue Bell showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex and the Upper Triassic

CAPSULE GEOLOGY

Cadwallader Group. The above sequence lies between bodies of the Jurassic to Cretaceous Coast Plutonic Complex and outlying Cretaceous and/or Tertiary intrusions. The Blue Bell showing is regionally hosted within granodiorite and quartz diorite of the Cretaceous to Tertiary Bendor pluton.

At the Blue Bell showing, the Bridge River Complex consists of greenstone, chert, basalt, argillaceous siltstone, phyllite, biotite schist and felsite. These have been intruded by medium grained quartz diorite and porphyritic border phases of the Bendor pluton.

A shear zone, at least 300 metres wide, has brecciated borders and may be an altered porphyry dike. A zone of mineralization trending north-northwest and dipping 69 degrees east, is 30 metres wide and 150 metres long. The zone contains quartz and calcite infilled fractures with pyrite, galena, sphalerite and an unidentified manganese mineral disseminated throughout. Argentite is associated with galena in calcite.

During property exploration in 1995, 10 rock chip samples were taken from the Wade Creek canyon. Sample 66559, across 0.2 metre of quartz vein containing pyrite, galena and sphalerite and cutting quartz diorite, yielded 14.4 grams per tonne silver, 0.32 per cent lead and 0.12 per cent zinc (Assessment Report 24126). Sample 66560 yielded 23.2 grams per tonne silver, 0.52 per cent lead and 0.05 per cent zinc across 0.1 metre.

BIBLIOGRAPHY

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Woolverton, H.S.F. (1925): Report)
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE083**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOHA**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 35 N
LONGITUDE: 122 10 00 W
ELEVATION: 414 Metres

NORTHING: 5634556
EASTING: 558650

LOCATION ACCURACY: Within 5 KM

COMMENTS: South side of Bridge River (Geological Survey of Canada Summary Report 1933A-75). Town of Moha was further up Yalakom River near Bridge River junction.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Gold
COMMENTS: Free gold.
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION:
COMMENTS: Vein is 15 to 38 centimetres wide.

STRIKE/DIP: 160/88E

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesitic Greenstone
Quartz Vein
Greenstone Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Moha prospect is on the southeast side of Bridge River, 0.8 kilometre southeast of the confluence of Yalakom River with Bridge River.

The prospect covers a quartz vein 15 to 38 centimetres wide within fractured andesitic greenstone of the Mississippian to Jurassic Bridge River Complex (Group). The vein contains native gold; no sulphides have been reported. In 1935, 93 grams of gold and 31 grams of silver were recovered from 12 tonnes of vein material (Minister of Mines Annual Report Index 3).

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR INDEX 3-205
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 1990-10
GSC SUM RPT *1933, Part A, p. 75

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/05

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE084**

NATIONAL MINERAL INVENTORY:

NAME(S): **BONANZA**, BONANZA CACHE, MAUDE,
NOEL

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 38 25 N
LONGITUDE: 122 04 15 W
ELEVATION: 780 Metres

NORTHING: 5610236
EASTING: 565702

LOCATION ACCURACY: Within 500M
COMMENTS: Location is "Noel" tunnel, southwest side of Cayoosh Creek.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Arsenopyrite Chalcopyrite Pyrite Pyrrhotite
ASSOCIATED: Quartz Calcite Mariposite Sericite
ALTERATION: Limonite Quartz
ALTERATION TYPE: Silicific'n Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
COMMENTS: Vein 30 to 52 centimetres wide is traceable for 25 metres.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Unnamed/Unknown Informal
Unknown			

LITHOLOGY: Argillite
Phyllite
Schist
Andesite Dike
Felsite Dike

HOSTROCK COMMENTS: Felsite dykes cut carbonitized phyllite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE:

INVENTORY

ORE ZONE: ADIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Channel
COMMODITY: Gold GRADE: 2.2300 Grams per tonne
COMMENTS: Across 1 metre. Adit channel sample.
REFERENCE: Assesment Report 12571.

CAPSULE GEOLOGY

The area of the Bonanza prospect is underlain by argillite, phyllite and schist, of the Mississippian to Jurassic Bridge River Complex (Group), which have been recumbently folded and are cut by numerous shears and faults. A thrust fault runs north-south, parallel to the ridge along the western boundary of the old Bonanza claim block. Above the thrust a thick sequence of carbonatized phyllite is cut by fine-grained andesitic to felsic dykes. Immediately below the thrust are dark, sheared argillites, in which the showings are hosted.

One principal vein, 30 to 52 centimetres wide, and numerous parallel quartz stringers were explored by 3 adits. The quartz-carbonate veins contain irregular chalcopyrite, pyrite, pyrrhotite and arsenopyrite mineralization with limonite, sericite and traces of mariposite. An adit-channel sample across 1 metre assayed 2.23 grams gold per tonne (Assessment Report 12571). Grab samples from dump material assayed 4.8 grams gold per tonne and 0.68 gram silver per tonne (Minister of Mines Annual Report 1935-F6).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
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PAGE: 656
REPORT: RGEN0100

BIBLIOGRAPHY

EM EXPL 1999-33-39
EMPR AR 1896-547; 1897-554; 1932-211; 1933-262; *1935-F6; 1968-162
EMPR ASS RPT 11871, *12571, *14146, 14878, *15860
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report and maps by G.M. Downton, 1933; Report by S.J.
Schofield, 1934; Report by *A. Mcleod, 1934; Report by N. Humphrys
& Co., 1935; Report by B.T. O'Grady, 1935)
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JNE084

MINFILE NUMBER: **092JNE085**

NATIONAL MINERAL INVENTORY:

NAME(S): **MARSHALL CREEK**, SUMMIT, BCT,
PS, MCP

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

LATITUDE: 50 51 30 N
LONGITUDE: 122 28 35 W
ELEVATION: 1000 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Old "BCT", "PS2" and "MCP" workings in, and east of Marshall Creek.

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5634202
EASTING: 536853

COMMODITIES: Gold Silver Copper Zinc Lead

MINERALS

SIGNIFICANT: Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive Vein
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular
MODIFIER: Sheared
COMMENTS: Copper, zinc and lead minerals not mentioned.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE: Paleozoic-Mesozoic GROUP: Bridge River FORMATION: Undefined Formation IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Argillite
Rhyolite
Chert
Quartzite
Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1981
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 6.5000 Grams per tonne
Gold 4.8000 Grams per tonne
COMMENTS: Sample A8 from a 6-metre wide well developed shear from the PS II workings.
REFERENCE: Assessment Report 10695.

CAPSULE GEOLOGY

The Marshall Creek showings are hosted in Mississippian to Jurassic Bridge River Complex (Group) metasediments and volcanics comprising chert, argillite, quartzite, rhyolite and basalt. The 4 "BCT" tunnels explore southwest trending, thin and weakly developed fractures in schistose argillite containing pyrite crystals and trace of gold and silver. The "PS" workings are adjacent to Marshall Creek and are hosted by rhyolite which extends to a sheared contact with unmineralized massive feldspathic basalt. The rhyolite contains massive pyrite; a sheared sample assayed 4.8 grams gold per tonne and 6.5 grams silver per tonne (Assessment Report 10695). The "MCP" working is hosted by volcanic rocks and consists of pyrite with traces of gold, silver, copper, zinc and lead occurring for about 40 metres along vertical fractures.

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EMPR ASS RPT 9608, 10453, *10695, 11224, 11784
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 658
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MEM 130, p. 99; 213
GSC OF 482
GSC P 43-15; 73-17
GSC SUM RPT 1912, p. 207; 1915, p. 83
GCNL #126,#133, 1991
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge
River Mining Camp, Unpublished B.Sc. Thesis, University of British
Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/05

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE086**

NATIONAL MINERAL INVENTORY:

NAME(S): **OLYMPIC (MANNERS ZONE)**, MANNERS, ALTA (L.6282)

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 53 40 N
LONGITUDE: 122 43 40 W
ELEVATION: 900 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5638122
EASTING: 519145

LOCATION ACCURACY: Within 500M

COMMENTS: Two adits on south side of Carpenter Lake, about 8 kilometres north-east of Goldbridge. Lot 6282.

COMMODITIES: Gold Silver Molybdenum Copper

MINERALS

SIGNIFICANT: Magnetite Molybdenite Chalcopyrite

ASSOCIATED: Quartz

ALTERATION: Garnet Calcite

COMMENTS: Garnet bearing calc-silicate skarn.

ALTERATION TYPE: Skarn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown

CLASSIFICATION: Skarn

TYPE: K01 Cu skarn

COMMENTS: Age of mineralization possibly post Cretaceous.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Cretaceous-Tertiary			Bendor Pluton

LITHOLOGY: Felsic Dike
Skarn
Diorite
Quartzite
Chert
Siltstone
Andesite
Rhyolite
Felsic Tuff
Felsic Breccia

HOSTROCK COMMENTS: Tongue of Bendor pluton near the contact with Bridge River complex sedimentary rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE: Hornfels

CAPSULE GEOLOGY

The Manners Zone on the Olympic Property is hosted in diorite of the Cretaceous to Tertiary Bendor pluton near the contact with Mississippian to Jurassic Bridge River Complex (Group). The Bridge River rocks consist of quartzite, chert, siltstones, andesites, rhyolites, felsic tuffs and breccias. Contact metamorphism from late felsic dykes, ie. younger than Bendor diorite, has produced a calc-silicate garnet-bearing skarn with quartz, magnetite, chalcopyrite and molybdenite.

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EMPR AR 1934-F31; 1935-F56; 1945-A88; 1946-A114
EMPR ASS RPT 8293, 8954, 11139, 12607, *14344
EMPR EXPL 1979-187
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17; 77-2 (GSC 76-50)

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 660
REPORT: RGEN0100

BIBLIOGRAPHY

CJES 1987, Vol. 24, pp. 2279-2291
GCNL #6,#34,#53, 1986

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/05

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE087**

NATIONAL MINERAL INVENTORY: 092J16 Cu1

NAME(S): **BROKEN HILL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 48 14 N
LONGITUDE: 122 18 20 W
ELEVATION: 1360 Metres

NORTHING: 5628247
EASTING: 548934

LOCATION ACCURACY: Within 500M
COMMENTS: Lower adit (Assessment Report 19106)

COMMODITIES: Silver Gold Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Malachite Quartz
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
SHAPE: Irregular
COMMENTS: Silicified zone 18 by 500 metres.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Eocene	Bridge River	Undefined Formation	Unnamed/Unknown Informal

ISOTOPIC AGE: 44.7 +/- 2.4 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Argillite
Chert
Andesite
Quartzite
Slate
Granodiorite Dike
Porphyritic Dacite Dike
Basalt
Granite Dike
Breccia

HOSTROCK COMMENTS: Age is of Mission Ridge Granodiorite (Geological Survey Paper 77-2, page 16).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: ADIT REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Grab

COMMODITY	GRADE	
Silver	709.0000	Grams per tonne
Gold	0.1400	Grams per tonne
Copper	1.0300	Per cent
Lead	3.8300	Per cent
Zinc	2.0500	Per cent

COMMENTS: From upper adit portal.
REFERENCE: Assessment Report 11457.

CAPSULE GEOLOGY

The Broken Hill polymetallic vein is on the east side of Sebring Creek, approximately three kilometres north of Carpenter Lake. The prospect is within argillite, slate, quartzite and chert with andesite and basalt; all are phyllitic and highly altered. These

CAPSULE GEOLOGY

rocks are part of the Mississippian to Jurassic Bridge River Complex (Group). The sedimentary rocks are cut by granodiorite of the Eocene Mission Ridge pluton and Tertiary porphyritic dacite.

An area 18 metres wide and continuous for at least 500 metres contains veins, lenses and disseminations of pyrite, galena, sphalerite, chalcopyrite and malachite. The rocks are brecciated, fractured and siliceous and comprise part of the regionally important Marshall Creek fault zone.

A best assay, obtained from the upper of two adit portals, graded 709.0 grams per tonne silver, 0.14 grams per tonne gold, 1.03 per cent copper, 3.83 per cent lead and 2.05 per cent zinc. An average of assays across 18 metres of silicification is 48.3 grams per tonne silver (Assessment Report 11457).

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EMPR ASS RPT *11457, 19106
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by A.R. Allen, 1971; Prospectus, Helgena Mines Ltd., 1971)
GSC OF 482
GSC P 77-2 (Sample GSC 76-50)
N MINER June 30, 1983

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/26

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE088**

NATIONAL MINERAL INVENTORY:

NAME(S): **SHULAPS, HOG**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 54 27 N
LONGITUDE: 122 28 13 W
ELEVATION: 1554 Metres

NORTHING: 5639672
EASTING: 537244

LOCATION ACCURACY: Within 500M

COMMENTS: Shulaps workings (Assessment Report 16445).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite
COMMENTS: Copper and arsenic minerals are reported.
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.
TYPE: I01 Au-quartz veins
COMMENTS: Vein averages 0.5 metre wide - maximum 2.1 metres.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Tertiary			Rexmount Porphyry
Upper Triassic			Shulaps Ultramafic Complex

LITHOLOGY: Quartzite
Phyllite
Argillite
Limestone
Porphyritic Dacite Dike
Serpentinized Ultramafic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE:

INVENTORY

ORE ZONE: OPENCUT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1985
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 6.8000 Grams per tonne
Gold 44.5700 Grams per tonne
COMMENTS: Sample of quartz from opencut.
REFERENCE: Minister of Mines Annual Report 1925, page 174.

CAPSULE GEOLOGY

The Shulaps gold showing is on Hog Creek northeast of its confluence with Marshall Creek. The occurrence is within quartzite, phyllite, argillite and limestone of the Permian to Middle Jurassic Bridge River Complex (Group) that are structurally interleaved with serpentized ultramafic rocks of the Shulaps ultramafic complex. These rocks are cut by dykes of Tertiary Rexmount porphyritic dacite. Most of the quartz of the showing is gossanous and contains pyrite and pyrrhotite. In 1925, a sample assayed 44.57 grams per tonne gold and 6.8 grams per tonne silver (Minister of Mines Annual Report 1925, page 174).

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EMPR AR *1925-174; 1926-191
EMPR ASS RPT *11967, 16445
EMPR EXPL 1987-C216

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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REPORT: RGEN0100

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EMPR PF (Several letters by C.C. Starr regarding the "Holland Mine", 1945-1947; Diamond Drill Logs for Hole No. 2, 1946; Cross Section of Drill Hole No. 1; Cross Section Log of Drill Hole No. 2; Map of Mineral Claims of New Holland Gold Mines Ltd., Showing Relation to Bralorne and Pioneer Properties (Scale 1"=500'), 1945; Starr, C.C. (1945) Report on the Holland Group of Claims (5 pages); Cross Section Log of Drill Hole No. 1)
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE089**

NATIONAL MINERAL INVENTORY:

NAME(S): **WHYNOT**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 55 46 N
LONGITUDE: 122 42 52 W
ELEVATION: 1220 Metres

NORTHING: 5642018
EASTING: 520068

LOCATION ACCURACY: Within 500M

COMMENTS: Adit near centre of Whynot 1 claim (Assessment Report 14510).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Stibnite Arsenopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Ankerite
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: 109 Stibnite veins and disseminations

STRIKE/DIP: 150/80E TREND/PLUNGE:

DIMENSION:
COMMENTS: Attitude of shear zone containing mineralization.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Taylor Creek	Undefined Formation	
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Conglomerate
Shale
Grit
Sub Greywacke
Basalt
Andesite
Chert

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1985

COMMODITY	GRADE	
Silver	34.6300	Grams per tonne
Gold	1.0600	Grams per tonne

COMMENTS: From collapsed adit in centre of Whynot #1 claim.
REFERENCE: Assessment Report 14510.

CAPSULE GEOLOGY

The Whynot occurrence is on Pearson Ridge five kilometres east of the south end of Tyaughton Lake. The showing occurs within a narrow wedge of Lower Cretaceous Taylor Creek Group sediments consisting of chert pebble conglomerates, subgreywacke, grits and shales. This wedge is surrounded by volcanics and cherts of the Mississippian to Permian Bridge River Complex (Group); the contact, while not seen, is probably a fault. The volcanics are andesitic to basaltic, massive to pillowed and show in places extensive carbonate(?) alteration with quartz, ankerite and disseminated of mariposite. The Taylor Creek sediments contain ankerite and disseminated pyrite.

A 1-metre wide shear zone, striking southeast and dipping steeply northeast in conglomerates, contains stibnite and arsenopyrite. A grab sample from an old collapsed adit which explored the shear for 8 metres assayed 1.06 grams gold per tonne and 34.63 grams silver per tonne (Assessment Report 14510).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 666
REPORT: RGEN0100

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pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-57
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by E.A. Ostensoe, 1983; Report by K.H. Seraphim,
1983; Plan map of Whynot vein)
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JNE089

MINFILE NUMBER: **092JNE090**

NATIONAL MINERAL INVENTORY: 092J15 Au19

NAME(S): **RANGER, LUCKY RANGER, BEE, FOXY, BEN D'OR, BIG APPLE, MORE APPLE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 50 07 N
LONGITUDE: 122 44 48 W
ELEVATION: 2438 Metres

NORTHING: 5631538
EASTING: 517839

LOCATION ACCURACY: Within 500M
COMMENTS: Adit (Assessment Report 14518).

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT: Tetrahedrite Arsenopyrite Chalcopyrite Pyrite Galena
Sphalerite Stibnite Pyrrhotite

ASSOCIATED: Quartz Carbonate
ALTERATION: Limonite Stibiconite

COMMENTS: Minor skarns also noted.
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic Skarn

TYPE: I01 Au-quartz veins

SHAPE: Irregular

MODIFIER: Sheared

COMMENTS: Vein strikes north northwest and dips steeply.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Cretaceous-Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton

LITHOLOGY:

Chert
Argillite
Basaltic Volcanic
Limestone
Serpentinite
Granodiorite
Porphyritic Dike
Listwanite
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact Regional

RELATIONSHIP:

GRADE: Hornfels
Greenschist

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1985

COMMODITY

Silver

GRADE

257.1000

Grams per tonne

Gold

154.3000

Grams per tonne

COMMENTS: Over 30 centimetres.
REFERENCE: Assessment Report 14225.

CAPSULE GEOLOGY

The Ranger showing is located on the southeast facing slope of an unnamed peak located seven kilometres east southeast of Goldbridge in the Bendor Range.

The property is underlain by Mississippian to Jurassic Bridge River Complex (Group) siliceous cherty sediments, argillites, limestones and volcanics. This package is intruded by granodiorite plugs of the Cretaceous to Tertiary Bendor pluton and also contains

CAPSULE GEOLOGY

masses of serpentinite. Porphyritic dykes of probable Tertiary age also cut these rocks.

Mineralized quartz and calcite veins occur in northwest trending shears and fractures in silicified and pyritic chert. The original showing was explored by a short adit (Adit zone). The "Bendor" vein is approximately 30 centimetres wide and contains massive tetrahedrite and arsenopyrite and minor amounts of galena, sphalerite, stibnite, chalcopyrite and pyrite. Alteration minerals include limonite and stibiconite. Vein samples, assayed 154.3 grams gold per tonne and 257.1 grams silver per tonne (Assessment Report 14518).

The Saddle zone, consisting of several pits and located 200 metres located northwest of the Adit zone, has narrow veinlets with similar mineralization as the main vein and is also hosted in fractured cherts. The East and North Ridge zones have anomalous gold, silver, zinc and arsenic soil geochemistry. Also reported on the property are limestones which are skarn-altered and contain chlorite, actinolite, pyrite, pyrrhotite and limonite, as well as quartz-carbonate-mariposite (listwanite) assemblages representing altered ultramafics.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1970-225; 1972-283; 1976-E125
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by J.A. Mitchell, 1945; Map, J.S. Stevenson; Assessment Report on the Ranger Property by B.J. Cooke, 1986)
GSC MAP 431A
GSC MEM 130; 213
GSC P 43-15; 73-17
GSC SUM RPT 1932, Part A, pp. 57-71
GCNL #193, 1985
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/11

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE091**

NATIONAL MINERAL INVENTORY:

NAME(S): **JONES**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 22 N
LONGITUDE: 122 26 30 W
ELEVATION: 1067 Metres

NORTHING: 5633973
EASTING: 539299

LOCATION ACCURACY: Within 500M

COMMENTS: Located near Jones Creek, 2 kilometres north of Carpenter Lake
Minister of Mines Annual Report 1910, page K137; Geological Survey of
Canada Summary Report 1912, page 209).

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Tertiary

DEPOSIT

CHARACTER: Stratabound Massive
CLASSIFICATION: Sedimentary Fossil Fuel
TYPE: A02 Lignite
SHAPE: Irregular
MODIFIER: Other
COMMENTS: Sedimentary host rocks strike east and dip gently to the north; they,
and adjacent volcanic rocks, rest unconformably upon rocks of the
Permo-Triassic Bridge River Complex.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Tertiary

GROUP

Bridge River

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Carbonaceous Shale
Sandstone
Chert Pebble Conglomerate
Crystal Tuff
Volcanic Breccia
Porphyritic Dacite
Coal
Scoria

HOSTROCK COMMENTS: Possibly Big Sheep Mountain volcanics (see Fieldwork 1986, page 23).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

TERRANE: Methow

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

Bridge River

RELATIONSHIP:

GRADE: Lignite

CAPSULE GEOLOGY

The Jones coal prospect is located near Jones Creek, approximately 2 kilometres north of Carpenter Lake. The prospect consists of 15-centimetre thick lenses of lignite coal, within carbonaceous shale and associated sandstone and chert pebble conglomerate. These rocks are interbedded with crystal tuff, volcanic breccia, scoria and porphyritic dacite. The sedimentary and volcanic rock package is thought to be Tertiary (possibly Eocene) in age. The whole sequence strikes east and dips gently to the north, and rests unconformably on rocks of the Mississippian to Jurassic Bridge River Complex (Group). The lignite, although very limited in extent is of high quality. The following analysis is reported: moisture, 8.1 per cent; ash, 5.6 per cent; volatile matter, 33.6 per cent and fixed carbon, 52.7 per cent (Minister of Mines Annual Report 1910, page 137).

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pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC SUM RPT 1912, p. 209

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE091**

MINFILE NUMBER: **092JNE092**

NATIONAL MINERAL INVENTORY:

NAME(S): **OLYMPIC**, MAGEE ZONE, MARGARITA ZONE,
LECKIE ZONE

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 53 27 N
LONGITUDE: 122 44 35 W
ELEVATION: 670 Metres

UTM ZONE: 10 (NAD 83)

LOCATION ACCURACY: Within 500M

NORTHING: 5637717
EASTING: 518072

COMMENTS: Location of Leckie and Magee adits (Assessment Reports 14344) and 1988 trenching which exposed the Margarita Zone (R.G. Gaba, personal communication, 1991). Approximately 8 kilometres northeast of Goldbridge.

COMMODITIES: Gold Silver Zinc Lead Copper
Arsenic

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Sphalerite Chalcopyrite Galena
Tetrahedrite Stibnite Malachite

COMMENTS: Magnetite only in Magee Zone, tetrahedrite only in Leckie Zone

ASSOCIATED: Quartz Calcite
ALTERATION: Carbonate Malachite Gypsum Quartz Sericite
Chlorite Talc

COMMENTS: Calcite not specified - "carbonates".

ALTERATION TYPE: Chloritic Quartz-Carb. Sericitic Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

SHAPE: Irregular
MODIFIER: Sheared

DIMENSION: STRIKE/DIP: 130/75W

TREND/PLUNGE:

COMMENTS: "Several wide ore shoots" (up to 1.5 metres), Leckie vein up to 4 metres in width.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Unnamed/Unknown Formation	Shulaps Ultramafic Complex
Paleozoic			

LITHOLOGY: Olivine Peridotite
Gabbro
Listwanite
Quartz Vein
Felsite Dike
Sediment/Sedimentary
Volcanic
Cherty Chloritic Greenstone
Serpentinite

HOSTROCK COMMENTS: Veins are within foliated, altered peridotite and cherty greenstone of the Bridge River Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP: Pre-mineralization

GRADE: Greenschist

INVENTORY

ORE ZONE: MAGEE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY

YEAR: 1986

	GRADE	
Silver	127.9000	Grams per tonne
Arsenic	8.5300	Per cent
Gold	5.3000	Grams per tonne
Copper	0.1500	Per cent
Lead	0.6700	Per cent
Zinc	0.8980	Per cent

COMMENTS: Sampled across 40 centimetres.
REFERENCE: George Cross News Letter No. 6, 1986.

CAPSULE GEOLOGY

The Leckie, Magee and Margarita polymetallic veins are exposed in trenches on the south shore of Carpenter Lake and in a trench on the road along the south shore of the lake, about 8 kilometers east of Gold Bridge. Several quartz veins, from a few centimetres to 4 metres thick, are hosted in foliated cherty greenstone of the Mississippian to Jurassic Bridge River Complex (Group), and peridotite-serpentinite-listwanite of the Permian and older Shulaps Ultramafic Complex.

The Leckie vein is in a southeast striking, west dipping shear in serpentine and/or gabbro near the contact with a felsite dyke. Irregular lenses of quartz-carbonate "listwanites" form several ore shoots up to 4 metres in width and consist of arsenopyrite, sphalerite pyrite, chalcopyrite, galena, tetrahedrite and mariposite and talc alteration products. Drill hole assays grade 35.6 grams gold per tonne, 404.6 grams silver per tonne across 1.5 metres.

The Magee showing (46 metres above the Leckie vein) is a strong 15 to 45 centimetre quartz vein in a 1 to 1.5-metre felsite dyke. Sphalerite, magnetite, pyrite, chalcopyrite and galena occupy up to 75 per cent of the vein. A sample taken across 40 centimetres graded 5.3 grams gold, 127.9 grams silver and 0.15 per cent copper, 0.67 per cent lead, 0.89 per cent zinc and 8.53 per cent arsenic (George Cross News Letter No.6, 1986).

The Margarita Zone, 50 metres west of the Leckie and Magee Zones, contains abundant arsenopyrite, pyrite and minor stibnite, accompanied by gypsum. The extension of the main 1-metre thick vein is exposed at the road and consists of quartz and calcite with arsenopyrite, pyrite, sphalerite and minor galena. The main vein appears banded, parallel to vein margins, with respect to the distribution of gangue and metallic minerals.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-G58
EMPR Inspections Branch File #202553
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Statement of Material Facts, Avino Mines and Resources, August 1, 1991; Geology map and sketch map around Magee adit, 1987; Plan map of Leckie and Magee workings)
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
BC MINER June, 1935
CJES 1987, Vol. 24, pp. 2279-2291
GCNL # 141, 1985; *#6,#34,#53, 1986
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British Columbia

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/06

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE093**

NATIONAL MINERAL INVENTORY:

NAME(S): **RICHSTRIKE**, WHITECAP, GOLD DIGGERS,
WHITE CAP, WHITE WATER, ASPEN,
GOLD CAP 3 & 4

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 44 45 N
LONGITUDE: 122 24 52 W
ELEVATION: 1844 Metres

NORTHING: 5621725
EASTING: 541312

LOCATION ACCURACY: Within 500M

COMMENTS: About 10 kilometres up Whitecap Creek, northeast of Seton Portage on Seton Lake. Location is centre of claim group.

COMMODITIES: Gold Silver Arsenic Antimony

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Stibnite
ASSOCIATED: Quartz
ALTERATION: Limonite
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations
COMMENTS: Series of parallel quartz veins 0.1 to 1.2 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE: Paleozoic-Mesozoic Cretaceous-Tertiary
GROUP: Bridge River
FORMATION: Undefined Formation
IGNEOUS/METAMORPHIC/OTHER: Bendor Pluton

LITHOLOGY: Quartzite
Phyllite
Schist
Limestone
Diorite
Granodiorite
Quartz Vein
Meta Volcanic

HOSTROCK COMMENTS: Intrusions possibly related to Bendor pluton.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1933
SAMPLE TYPE: Grab
COMMODITY: Gold GRADE: 8.9000 Grams per tonne
REFERENCE: Minister of Mines Annual Report 1933, page A262.

ORE ZONE: ADIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Chip
COMMODITY: Silver GRADE: 26.7000 Grams per tonne
Gold GRADE: 0.1030 Grams per tonne

COMMENTS: Best assay from adit sampling.
REFERENCE: Assessment Report 17177.

CAPSULE GEOLOGY

The Whitecap Property is located east of Bralorne on the western slope of Nosebag Mountain and along Whitecap Creek, in the Bendor Range.

CAPSULE GEOLOGY

The claims are underlain primarily by Mississippian to Jurassic Bridge River Complex (Group) metasediments and metavolcanics, which are sandwiched between the northwest trending Bralorne and Yalakom fault systems. Phyllite, schist, metavolcanics and minor limestone of the Bridge River Complex are intruded by diorite and granodiorite probably related to the nearby Cretaceous to Tertiary Bendor pluton, the eastern edge of which lies immediately west of the property.

Narrow quartz veins (less than 20 cm) occupy shears, joints and fractures and are visible in a 196 metre long adit, driven in 1933. The veins contain disseminated pyrite, arsenopyrite and stibnite, with gold, silver and minor lead and zinc values. The best assay from underground sampling ran 0.103 gram per tonne gold, 26.7 grams per tonne silver, 0.04 per cent zinc and 0.02 per cent lead (Assessment Report 17177). Most assays were much lower. The Ministry of Mines Annual Report for 1933 quotes surface values of up to 8.9 grams per tonne gold.

BIBLIOGRAPHY

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EMPR ASS RPT *17177
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Map showing Bridge River Area Mineral Claims; Report by A.J. Gaul, 1934)

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/14

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

Some old workings were relocated at about 762 metres elevation near the eastern boundary of the Omega Fraction (Lot 522) claim. The workings exposed an irregular quartz vein averaging 1 metre width. The veins contains abundant arsenopyrite and native gold. The quartz vein follows bedding in argillite, which dips 18 degrees north.

Between 1897 and 1901, the mine produced 2788 tonnes of ore averaging 8.12 grams of gold per tonne for a total recovery of 23 kilograms of gold (Assessment Report 12571). There has been some confusion in past records between the Golden Cache and the Ample (092JNE069). Production figures are listed for the Golden Cache, although they have been previously listed under the Ample; there may have been an adit named the Ample in the Golden Cache group.

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EM EXPL 1999-33-39
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1933-262; *1935-F6; 1968-162
EMPR ASS RPT 11871, *12571, 14146, 14878, 22154, 23274, *23945
EMPR BC METAL MM00241
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR INDEX 3-187
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (McLeod, A. (1934): Reports and Maps; Humphrys, N. (1934):
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O'Grady, B.T. (1935): Reports and Maps; Smith, E.W. (1977):
Reports and Maps)
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE095**

NATIONAL MINERAL INVENTORY:

NAME(S): **NORTHERN LIGHT 1 (L.6831)**, GOLDSIDES PROJECT, 24TH OF MAY

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 16 N
LONGITUDE: 122 51 45 W
ELEVATION: 1966 Metres

NORTHING: 5648475
EASTING: 509651

LOCATION ACCURACY: Within 500M

COMMENTS: Adit No. 2 on a northwest slope, near the headwaters of Taylor Creek.
See also 092JNE105 - Northern Light No. 6, located 1 kilometre northwest.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular
COMMENTS: "Stringers" - narrow disconnected, partly decomposed.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Paleocene			Eldorado Pluton

ISOTOPIC AGE: 77.8 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Serpentinite
Serpentinized Peridotite
Granodiorite

HOSTROCK COMMENTS: Age from Leitch et al (1989).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

Cadwallader
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE: Greenschist

INVENTORY

ORE ZONE: PIT REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1935
SAMPLE TYPE: Grab
COMMODITY _____ GRADE _____
Gold 10.3000 Grams per tonne

COMMENTS: Sample from a pit adjacent to the adit ("big open cut") (Sample #6679). Also contains trace silver.

REFERENCE: Minister of Mines Annual Report 1935, page F16.

CAPSULE GEOLOGY

The Northern Lights polymetallic vein is located in the Taylor Creek Basin, 2.5 kilometres south-southwest of Eldorado Mountain. The prospect is within massive to sheared serpentinite and serpentinitized peridotite, intruded by dykes and irregular bodies of Paleocene Eldorado granodiorite. This serpentinite melange, which may comprise an offset portion of the Permian and older Shulap Ultramafic Complex, is in fault contact to the east, west and south with rocks of the Mississippian to Jurassic Bridge River Complex (Open File 1989-4; Fieldwork 1988, page 119).

Quartz veinlets, generally within the granodiorite, contain arsenopyrite and pyrite; these are narrow, discontinuous and are partly decomposed. The No. 2 adit, 87 metres long, explores these veins below surface. Samples from the pit in 1935 were reported to assay 10.3 grams per tonne gold and trace silver (Minister of Mines Annual Report 1935, page F16).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 677
REPORT: RGEN0100

BIBLIOGRAPHY

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pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-58
EMPR OF 1987-11; 1988-3; *1989-4; 1990-10
EMPR PF (1935 claim and underground plan maps)
GSC MEM 130; 213
GSC P 43-15; 73-17; 77-2 (Sample 76-49)
CJES 1987, Vol. 24, pp. 2279-2291
ECON GEOL Vol. 84, pp. 2226-2236

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE095**

MINFILE NUMBER: **092JNE096**

NATIONAL MINERAL INVENTORY:

NAME(S): **MARY MAC (SOUTH ZONE), SOUTH**

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 50 N
LONGITUDE: 122 41 25 W
ELEVATION: 1394 Metres

NORTHING: 5634735
EASTING: 521797

LOCATION ACCURACY: Within 500M

COMMENTS: Five kilometres southwest of Carpenter Lake. Showing in trench, located off eastern branch off main Truax logging road.

COMMODITIES: Gold Antimony Molybdenum Copper

MINERALS

SIGNIFICANT: Stibnite Pyrite Molybdenite Copper

COMMENTS: Five to eight per cent disseminated and fracture pyrite.

ASSOCIATED: Quartz

COMMENTS: Quartz "cements" breccia.

ALTERATION: Pyrite Quartz

ALTERATION TYPE: Silicific'n Pyrite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Breccia

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: 109 Stibnite veins and disseminations L05 Porphyry Mo (Low F- type)

SHAPE: Irregular

MODIFIER: Fractured

DIMENSION:

STRIKE/DIP: 090/70N

TREND/PLUNGE:

COMMENTS: Brecciated.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Permian-Triassic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Meta Volcanic Breccia
Argillite
Hornblende Feldspar Dike
Andesite
Basalt

HOSTROCK COMMENTS: Metavolcanics are brecciated and cemented by quartz.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

Regional

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Hornfels

INVENTORY

ORE ZONE: SOUTH

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1983

QUANTITY: 27300 Tonnes

COMMODITY

GRADE

Gold

8.1800

Grams per tonne

COMMENTS: Cutoff grade is 3.11 grams per tonne, vertical depth 40 metres, strike length 100 metres, average vein width 2.6 metres.

REFERENCE: Assessment Report 11647.

CAPSULE GEOLOGY

The Mary Mac - South zone showing is hosted in brecciated Mississippian to Jurassic Bridge River Complex (Group) metavolcanics of andesitic to basaltic composition. The breccia is cemented by quartz and contains "globular" stibnite and pyrite. The mineralized breccia zone strikes east and dips 70 degrees north; the mineralization is strong in widths of 1 to 6 metres. Above the brecciated metavolcanics are meta-argillites/hornfels, thought to belong to the Bridge River Complex, which are completely impregnated with disseminated pyrite (5 to 8 per cent). This strong zone of pyritization forms a "halo" in the sediments around the base of Mount Williams.

The north and main zones of the Mary Mac property, approximately

CAPSULE GEOLOGY

0.8 kilometres to the north contain distinctly different mineralization from the south zone (see 092JNE067). The mineralization occurred in two stages; early molybdenum-quartz veining in hornblende-feldspar porphyry dykes was crosscut by gold-bearing quartz-carbonate-stibnite veins found in both the porphyry dykes and the intruded Bridge River meta-cherts. Copper values are also obtained.

Workings on the South zone consist of surface trenching and three drill holes. Ore reserves calculated in 1983 consist of 27,300 tonnes grading 8.18 grams per tonne gold, over an average width of 2.4 metres (cut-off grade is 3.11 grams per tonne) (Assessment Report 11647). The calculation is based on a 140 metre strike length and 60 metre vertical depth.

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EMPR EXPL 1977-E171, 1987-C210
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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Map 92J, 1986)
GSC MAP 13-1973
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/09

CODED BY: GSB
REVISED BY: AFW

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE097**

NATIONAL MINERAL INVENTORY:

NAME(S): **TENAS CREEK**, HORSES ASS, NOR

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W 092J07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 30 01 N
LONGITUDE: 122 45 10 W
ELEVATION: 810 Metres

NORTHING: 5594285
EASTING: 517533

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located on south side of Tenas Creek. Property overlaps onto 092JSE map sheet (092J/7).

COMMODITIES: Copper Zinc

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite
ALTERATION: Pyrite Chlorite Epidote
ALTERATION TYPE: Propylitic Argillic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Skarn
TYPE: K02 Pb-Zn skarn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Upper Triassic
Upper Cretaceous

GROUP

Cadwallader

FORMATION

Pioneer

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

ISOTOPIC AGE: 77.8 +/- 2.9 Ma

DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Andesite
Volcanic Breccia
Rhyolite
Argillite
Limestone
Granodiorite
Quartzite

HOSTROCK COMMENTS: Date from Geological Survey of Canada Paper 77-2, sample GSC 76-49.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Syn-mineralization GRADE: Hornfels

CAPSULE GEOLOGY

The Tenas Creek showing area is underlain by north striking, steeply dipping Upper Triassic Pioneer Formation (Cadwallader Group) andesites, volcanic breccia, argillite, pyritic quartzite, rhyolites and limestone. The Jurassic to Tertiary Coast Plutonic Complex (granodiorites) intrudes the volcanic package to the west.

Highly gossanous andesites and rhyolites are exposed which show argillic and/or propylitic alteration and contain up to 15 per cent pyrite. A blasted pit on the south side of Tenas Creek revealed minor sphalerite and chalcopyrite in a layered chlorite and epidote-rich skarn zone. North of the creek an adit was driven to explore this mineralization.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 13-1973
GSC OF 482
GSC P 73-17; 77-2 (Sample 76-49)

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/09

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE097**

MINFILE NUMBER: **092JNE098**

NATIONAL MINERAL INVENTORY: 092J15 Au13

NAME(S): **BENBOE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 48 25 N
LONGITUDE: 122 32 45 W
ELEVATION: 1380 Metres

NORTHING: 5628455
EASTING: 532001

LOCATION ACCURACY: Within 500M

COMMENTS: West side of Tommy Creek, south of Carpenter Lake.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Stibnite Arsenopyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Breccia
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Irregular
MODIFIER: Sheared
DIMENSION: 225 x 1 Metres STRIKE/DIP:
COMMENTS: Vein follows sheared contact striking northeast and dipping steeply to the northwest. Vein is 1 by 225 metres.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Cretaceous-Tertiary			Bendor Pluton

ISOTOPIC AGE: 57.4 +/- 2.3 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Greenstone
Sediment/Sedimentary
Basalt
Granodiorite
Porphyry Dike
Mafic Dike

HOSTROCK COMMENTS: Date from Geological Survey of Canada Paper 77-2, sample GSC 76-50.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Contact RELATIONSHIP: GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Chip
COMMODITY: Gold GRADE: 3.3500 Grams per tonne
COMMENTS: Across 1 metre (true width).
REFERENCE: Assessment Report 15304.

CAPSULE GEOLOGY

Mississippian to Jurassic Bridge River Group cherty sediments and basaltic greenstones strike northeast, dip steeply northwest and are intruded by a stock of Cretaceous to Tertiary Bendor pluton granodiorite. Tertiary (?) porphyry dykes and a mafic dyke also cut the metasediments.

The Benboe vein occurs along a sheared volcanic-sediment contact. The volcanics are silicified and oxidized. The quartz-carbonate vein is up to one metre in width and is brecciated and vuggy. Minor stibnite and pyrite disseminations and bands occur with traces of arsenopyrite. The best assay obtained is 3.35 grams gold

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RUN TIME: 09:30:14

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CAPSULE GEOLOGY

per tonne across 1 metre true width (Assessment Report 15304). An older report gave assays of 12.34 grams gold per tonne and 17.14 grams silver per tonne (Minister of Mines Annual Report 1937, page F12).

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 77-2
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #150, 174, 1986

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/09

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE099**

NATIONAL MINERAL INVENTORY: 092J15 Cr1

NAME(S): **SHULAPS RANGE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 54 47 N
LONGITUDE: 122 32 23 W
ELEVATION: 1630 Metres

NORTHING: 5640257
EASTING: 532358

LOCATION ACCURACY: Within 500M

COMMENTS: On steep hillside northeast of Marshall Creek midway between Brett Creek and Marshall Lake.

COMMODITIES: Chromium

MINERALS

SIGNIFICANT: Chromite
ASSOCIATED: Serpentine
ALTERATION: Chlorite Talc
ALTERATION TYPE: Serpentin'zn Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform Massive Disseminated
CLASSIFICATION: Magmatic Industrial Min.
TYPE: M03 Podiform chromite
SHAPE: Irregular
MODIFIER: Sheared
DIMENSION: 6 x 3 Metres STRIKE/DIP:
COMMENTS: Individual pods of chromitite observed: 1.5 metres by 1 metre; 0.5 by 0.25 metre. TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Paleozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Serpentinized Peridotite
Chert
Phyllite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1953

SAMPLE TYPE: Grab

COMMODITY

GRADE

Chromium

57.4300

Per cent

COMMENTS: Value is for chromium oxide.

REFERENCE: Bulletin 32, page 45.

CAPSULE GEOLOGY

The Shulaps Range chromite showing is located 2 kilometres east of the southeast end of Marshall Lake. The showing is within serpentinite and serpentinitized peridotite of the Permian and older Shulaps Ultramafic Complex, and structurally imbricated with chert and phyllite of the Mississippian to Jurassic Bridge River Complex (Group). Chromite occurs generally disseminated throughout the serpentinitized ultramafic rocks as an accessory mineral.

Leech (1953) initially identified eight massive chromite lenses occurring within serpentinite (Bulletin 32). The chromite lenses are 1.5 metres by 1.0 metre and 0.5 metre by 0.25 metre in size (as exposed) and consist of massive chromite with serpentine and talc, mostly along smooth sheared margins which give the pods a lozenge shape. One sample assayed 57.43 per cent chromium oxide (Cr2O3) (Bulletin 32).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 684
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR OF 1989-4; 1990-10
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/11

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE100**

NATIONAL MINERAL INVENTORY: 092J15 Cr2

NAME(S): **TAYLOR CREEK CHROMITE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W 092O02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 59 N
LONGITUDE: 122 52 05 W
ELEVATION: 2250 Metres

NORTHING: 5649802
EASTING: 509259

LOCATION ACCURACY: Within 5 KM

COMMENTS: Located on "north slope of Taylor Creek" (very indefinite positioning).

COMMODITIES: Chromium Nickel

MINERALS

SIGNIFICANT: Chromite Pentlandite Pyrrhotite
ASSOCIATED: Amphibole Dolomite
ALTERATION: Talc Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Magmatic Industrial Min.
TYPE: M03 Podiform chromite

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Unknown

GROUP

Bridge River

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Serpentinite
Peridotite
Dunite
Sediment/Sedimentary

HOSTROCK COMMENTS: Reddish weathering peridotite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1986

COMMODITY

GRADE

Chromium

48.7200

Per cent

COMMENTS: Value is for chromium oxide.

REFERENCE: Geological Survey of Canada Summary Report 1915, page 83.

CAPSULE GEOLOGY

The Taylor Creek chromite showing is located in the Taylor Creek basin, approximately 2 kilometres southwest of Eldorado Mountain. The showing is within serpentinite, serpentinized dunite and peridotite, imbricated with sedimentary rocks of the Mississippian to Jurassic Bridge River Group (Open File 1989-4; Fieldwork 1988, page 119).

Massive chromite is associated with serpentine and reddish weathered peridotite. Chemical analysis of the ore shows that it consists of 48.72 per cent Cr₂O₃ (Geological Survey of Canada Summary Report 1915, page 83).

About half a kilometre north, an occurrence of nickel is hosted in a north striking lense of sheared serpentine and talc, surrounding lenses and patches of dunite. The mineralization is restricted to a 2 to 3-metre wide section along the west side of the ultramafic body and consists of fine-grained disseminated pentlandite and pyrrhotite. Minor amphibole and dolomite(?) occur on shear planes. A grab sample assayed 0.32 per cent nickel, 0.38 per cent sulphur, 0.28 per cent chromium and trace cobalt (Exploration in British Columbia 1986, page B40).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 686
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR EXPL *1986, pp. B38-40
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pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC SUM RPT *1915, pp. 80,83 (Map facing)
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE101**

NATIONAL MINERAL INVENTORY: 092J16 Mo1

NAME(S): **ALPINE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 50 49 N
LONGITUDE: 122 18 40 W
ELEVATION: 2287 Metres

NORTHING: 5633031
EASTING: 548498

LOCATION ACCURACY: Within 500M

COMMENTS: Location of vein as shown on map accompanying Assessment Report 11758.

COMMODITIES: Molybdenum Copper Gold Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Arsenopyrite Molybdenite
ASSOCIATED: Quartz Chalcopyrite
ALTERATION: Malachite Azurite
ALTERATION TYPE: Carbonate Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Hydrothermal
SHAPE: Tabular
MODIFIER: Fractured
DIMENSION: 50 x 2 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Eocene			Mission Ridge Pluton
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Brecciated Biotite Granodiorite
Schist
Phyllite
Felsic Porphyry

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Chilcotin Plateau
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The Alpine molybdenum prospect is in the southwest part of the Shulaps Range, at the headwaters of LaRoche Creek. The showing is underlain by schists and phyllites of the Mississippian to Jurassic Bridge River Complex (Group) and intruded by syn- to post-tectonic granitic to felsic porphyry of the Eocene Mission Ridge pluton. These rocks are, in turn, structurally overlain by ophiolites of the Permian and older Shulaps Ultramafic Complex.

The Alpine showing is a quartz vein, 2.5 metres wide and approximately 50 metres long, containing molybdenum and weakly anomalous gold and silver values. The adjacent host granodiorite is extremely fractured and limonitic stained and contains chalcopyrite, malachite and azurite.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMR MP CORPFILE (Yalakom Mines Ltd.)
GSC OF 482
GSC P 77-2, p. 16
GCNL #75, 1987
V STOCKWATCH, May 22, Apr 16, July 13, 1987

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/09

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE102**

NATIONAL MINERAL INVENTORY:

NAME(S): **LIZA LAKE A**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 57 33 N
LONGITUDE: 122 37 38 W
ELEVATION: 1310 Metres

NORTHING: 5645350
EASTING: 526181

LOCATION ACCURACY: Within 500M
COMMENTS:

COMMODITIES: Magnesite Chromium

MINERALS

SIGNIFICANT: Magnesite Chromite
ASSOCIATED: Calcite
ALTERATION: Magnesite Calcite Mariposite
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stratabound
CLASSIFICATION: Replacement Hydrothermal Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite
DIMENSION: 250 x 60 Metres

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Paleozoic

GROUP

Bridge River

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Shulaps Ultramafic Complex

LITHOLOGY: Serpentinized Peridotite
Magnesite
Vein
Greenstone
Chert
Listwanite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Liza Lake A magnesite showing is located 1.2 kilometres northeast of the southern end of Liza Lake. The prospect is within a sliver of serpentinized peridotite that is partly carbonate and silica altered to listwanite. These rocks are assigned to the Permian and older Shulaps Ultramafic Complex. Chert and greenstone of the Mississippian to Jurassic Bridge River Complex (Group) are in fault contact with the ultramafic rocks on either side.

The prospect consists of irregular bodies of massive and crystalline magnesite, cut by numerous veinlets of clear chalcedonic quartz. Locally, the crystalline magnesite is vuggy and filled with chalcedony. Minor mariposite and chromite are present as scattered grains and clusters. A sample analysed by the Geological Survey of Canada in 1915 (Summary Report 1915) indicated 43.42 per cent MgO, 0.46 per cent CaO, 0.56 per cent FeO, 0.25 per cent Fe₂O₃, 0.23 per cent Al₂O₃, 47.28 per cent CO₂, 7.46 per cent SiO₂ and 0.68 per cent H₂O.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MEM 130, pp. 75-77
GSC OF 482
GSC SUM RPT *1915, pp. 83-84; 1916, pp. 48-52
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/23

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE102**

MINFILE NUMBER: **092JNE103**

NATIONAL MINERAL INVENTORY:

NAME(S): **COMSTOCK, BRADLEY, HOMESTAKE (L.5745),
COMSTOCK 2 (L.5744)**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 00 N
LONGITUDE: 122 47 45 W
ELEVATION: 1385 Metres

NORTHING: 5625751
EASTING: 514393

LOCATION ACCURACY: Within 1 KM

COMMENTS: One and one half kilometres northeast of Bralorne, due south of Mead Lake. Known to be near to Lot 5920; main showing is either on Lot 5745 (Homestake) or Lot 5744 (Comstock 2).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite
COMMENTS: Banded sulphides.
ALTERATION: Quartz
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: 101 Au-quartz veins
DIMENSION:

STRIKE/DIP: 337/60N

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Greenstone
Quartz Vein
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1937

COMMODITY

GRADE

Gold

12.3400

Grams per tonne

REFERENCE: Geological Survey of Canada Memoir 213, page 101.

CAPSULE GEOLOGY

The Bradley vein on the Comstock property is hosted in volcanics and sediments of the Mississippian to Jurassic Bridge River Complex (Group). The vein is in mostly greenstones but extends into argillites a few hundred metres to the east. The 1.2-metre vein strikes west-northwest with a steep north dip and is composed of 15-centimetre bands of quartz on either wall enclosing a calcareous infilling. Abundant pyrite with lesser amounts of arsenopyrite form a banded structure. Surface assays yield 0.68 grams per tonne gold and deeper samples gave 12.34 grams per tonne gold (Geological Survey of Canada Memoir 213, page 101). The vein was explored by a 10 metre shaft.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Unpublished report by J.S. Stevenson, 1947)
GSC MAP 430A; 431A
GSC MEM 130; *213, p. 101
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 690
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 43-15, 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE104**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOON CREEK ASBESTOS, JADE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 45 20 N
LONGITUDE: 122 01 15 W
ELEVATION: 1590 Metres

NORTHING: 5623099
EASTING: 569067

LOCATION ACCURACY: Within 500M

COMMENTS: East of Moon Creek on powerline right-of-way.

COMMODITIES: Asbestos

MINERALS

SIGNIFICANT: Chrysotile
ALTERATION: Talc Serpentine
ALTERATION TYPE: Carbonate Silicific'n Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein
CLASSIFICATION: Metamorphic Hydrothermal Epigenetic Industrial Min.
TYPE: M06 Ultramafic-hosted asbestos
SHAPE: Irregular
MODIFIER: Fractured
COMMENTS: Multi-directional fractures contain chrysotile.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	Unnamed/Unknown Informal
Paleozoic			

LITHOLOGY: Serpentinized Peridotite
Greywacke
Conglomerate
Argillite
Limestone
Diorite Dike

HOSTROCK COMMENTS: Ultramafic rocks lying conformably (sill-like) in the sediments are possibly continuous with Shulaps Ultramafics (Permian and older).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pavilion Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

Interbedded greywacke, small-pebble conglomerate and argillite with minor limestone lenses of the Mississippian an older Bridge River Complex (Group) trend northwest and dip moderately southwest. Serpentinized peridotite lies conformably beneath the sediments; the contact is irregular and sheared and contains white calcite veining. The peridotite is lens-shaped covering an area 3600 metres by 1050 metres. A few small albitized diorite dykes intrude the peridotite.

The asbestos is cross-fibre chrysotile occurring in thin, irregular discontinuous veinlets in multi-directional fractures in the serpentinized peridotite. The widest vein found is 8 milli-metres; most of the asbestos is concentrated in a zone along the south contact of the peridotite mass. Outside this zone, the occurrences are patchy and scattered.

The same area was probably covered by the "Jade" claims (Minister of Mines Annual Report 1962, page 23).

BIBLIOGRAPHY

EMPR AR 1962-23
EMPR ASS RPT 1862, 2209
EMPR BULL 44
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM *1969-380; 1975-E199
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10; 1995-25

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 692
REPORT: RGEN0100

BIBLIOGRAPHY

GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE105**

NATIONAL MINERAL INVENTORY:

NAME(S): **NORTHERN LIGHT 6 (L.6836)**, GOLDSIDES PROJECT, 24TH OF MAY

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 39 N
LONGITUDE: 122 52 26 W
ELEVATION: 2241 Metres

NORTHING: 5649184
EASTING: 508850

LOCATION ACCURACY: Within 500M

COMMENTS: Northwest of headwaters of Taylor Creek (No. 1 adit). Refer also to 092JNE095 (Northern Light No.1), located 1 kilometre southeast.

COMMODITIES: Gold Copper Silver Zinc Arsenic

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Sphalerite Chalcopyrite

COMMENTS: Coarsely crystalline, banded and disseminated.

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

COMMENTS: Veins follow curving fractures striking northeast and dipping steeply northwest.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Hurley	
Paleozoic-Mesozoic	Bridge River	Unnamed/Unknown Formation	
Paleocene			Eldorado Pluton

ISOTOPIC AGE: 63.7 +/- 2.2 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

LITHOLOGY: Quartz Diorite
Quartzite
Chert
Sandstone
Conglomerate
Serpentinized Peridotite

HOSTROCK COMMENTS: Age determination made from Economic Geology 84 (Leech et al., 1989).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

Cadwallader

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: PIT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1934

SAMPLE TYPE: Bulk Sample

COMMODITY

GRADE

Silver 2.0600 Grams per tonne

Arsenic 19.5600 Per cent

Gold 59.6600 Grams per tonne

Copper 0.0500 Per cent

COMMENTS: Assay and analyses of 2.1 tonnes of ore shipped to Tacoma smelter by Goldside Mines Ltd. in Dec. 1934.

REFERENCE: Minister of Mines Annual Report 1935, page F14.

CAPSULE GEOLOGY

The Northern Lights 6 polymetallic vein prospect is in the Taylor Creek Basin, 2.5 kilometres southwest of Eldorado Mountain. The prospect is within an apophyses of the Paleocene Eldorado quartz diorite. These rocks intrude chert and quartzite of the Mississippian to Jurassic Bridge River Complex (Group), (tectonically imbricated with serpentinite of an unassigned affinity) and sandstone and conglomerate of the Upper Triassic Cadwallader Group (Hurley Formation).

CAPSULE GEOLOGY

Fractures and shears that cut the quartz diorite, strike northeast and dip steeply, and localize veins (generally narrow, but up to 25 cm thick) of quartz and arsenopyrite, pyrite and sphalerite, with minor chalcopyrite. The surrounding sheared quartz diorite also contains disseminated sulphides. The veins are commonly banded with respect to the distribution of sulphides and quartz.

The "No. 1 adit", 126 metres long, explored these veins. The original workings on surface (65 metres west of the adit) expose a vein 25 to 30 centimetres thick. A 2.1-tonne bulk sample was taken in 1934 and graded 59.66 grams per tonne gold, 2.06 grams per tonne silver 0.05 per cent copper, 19.56 per cent arsenic, 13.9 per cent iron, 44 per cent silica, 5.9 per cent alumina and 6 per cent sulphur (Ministry of Mines Annual Report 1935, page F14).

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EMPR GEOLOGY 1975-58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by O'Grady, 1935; Claim location and geology map)
GSC MEM 130; 213
GSC P 43-15
CJES 1987, Vol. 24, pp. 2279-2291
ECON GEOL 84-8-1989, pp. 2226-2236 (Leech et al, 1989)

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/27

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE106**

NATIONAL MINERAL INVENTORY:

NAME(S): **CADWALLADER MOUNTAIN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 39 49 N
LONGITUDE: 122 42 05 W
ELEVATION: 1770 Metres

NORTHING: 5612461
EASTING: 521105

LOCATION ACCURACY: Within 1 KM
COMMENTS: Located at the head of Copp Creek.

COMMODITIES: Asbestos

MINERALS

SIGNIFICANT: Chrysotile
ALTERATION: Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.
TYPE: M06 Ultramafic-hosted asbestos
COMMENTS: Veinlets 3 millimetres wide.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic			President Ultramafics
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Serpentinized Peridotite
Granodiorite
Vein

HOSTROCK COMMENTS: Ultramafic body next to granodiorite pluton.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Serpentinized peridotite, possibly of the President Ultramafics (probably correlative with Permian and older Shulaps Ultramafics), occurs in a large body against granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

Excellent quality cross fibre chrysotile asbestos occurs in closely spaced veinlets 3 millimetres wide in 30 centimetre widths of partly serpentinized peridotite.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10; 1995-25
GSC MEM *213, p. 70

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE107**

NATIONAL MINERAL INVENTORY:

NAME(S): **OLYMPIC (L.6280) (BILLYO ZONE)**, OLYMPIC (MOLY ZONE), BILLYO,
MOLY

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:
LATITUDE: 50 53 45 N
LONGITUDE: 122 44 05 W
ELEVATION: 840 Metres

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5638275
EASTING: 518656

LOCATION ACCURACY: Within 500M
COMMENTS: Location is Billyo adit, south shore Carpenter Lake, about 8.5 kilo-
metres northeast of Goldbridge.

COMMODITIES: Molybdenum Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Magnetite Chalcopyrite Arsenopyrite
 Ferrimolybdtite
ALTERATION: Diopside Garnet Ferrimolybdtite Gypsum
COMMENTS: Diopside-garnet. Age of mineralization possibly post Cretaceous.
ALTERATION TYPE: Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Disseminated Breccia
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation

LITHOLOGY: Felsite
Felsite Breccia
Skarn
Aplite Dike

HOSTROCK COMMENTS: Felsite breccia is vesicular and oxidized (Fe).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Contact Regional RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The Billyo "massive sulphide" zone is hosted in Mississippian to Jurassic Bridge River Complex (Group) metasediments. Trenching exposes a garnet-diopside skarn in iron-oxidized vesicular felsite breccia containing lensoid pyrite, pyrrhotite, magnetite and chalcopyrite. An adit and nearby drill holes located pyrite and magnetite stringers but failed to reach massive sulphide mineralization. Over 30 centimetres, sulphides geochemically analysed 0.27 grams per tonne gold, 3.43 grams per tonne silver and 0.06 per cent copper and a grab sample ran 5.9 grams per tonne gold, 5.14 grams per tonne silver and 0.55 grams per tonne copper.

The Moly zone, on the west side of the Billyo zone, contains fracturing and quartz veining adjacent to or within a broad aplite dyke surrounded by a pyrite/gypsum halo. Mineralization consists of pyrite, pyrrhotite (dendritic), manganese staining, ferro-molybdenum staining and arsenopyrite.

BIBLIOGRAPHY

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EMPR ASS RPT 8293, 8954, *11139, 12607, *14344
EMPR EXPL 1979-187
EMPR FIELDWORK 1974, p. 38; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-104; 1990, pp. 75-83
EMPR GEOLOGY 1975-G58
EMPR PF (Geology map by Lacana, 1984; Geology map of Kelvin-Olympic properties, 1988; Geology around Moly adit, Middle Hill adit, Upper Hill adit, 1987; Sketch map of adit locations; Geology map of Olympic claims, 1988)
GSC MEM 130; 213

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 697
REPORT: RGEN0100

BIBLIOGRAPHY

GSC MAP 431A
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #6, #34, #53, 1986

DATE CODED: 1987/03/03
DATE REVISED: 1991/09/10

CODED BY: MM
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE108**

NATIONAL MINERAL INVENTORY: 092J15 Au10

NAME(S): **JEWEL**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 54 20 N
LONGITUDE: 122 56 55 W
ELEVATION: 6000 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5639324
EASTING: 503613

LOCATION ACCURACY: Within 500M

COMMENTS: Portal on steep north end of spur between Roxey and Jewel creeks, which flow into Gun Creek, west of Gun Lake and north of Mount Penrose.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Arsenopyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular
DIMENSION: STRIKE/DIP: 067/60S
COMMENTS: Branching veins and stringers are 30 metres by 210 metres. Dips vary between 60 degrees and 85 degrees south.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex
Cretaceous-Tertiary			Bendor Pluton

LITHOLOGY: Serpentinite
Diorite Dike
Quartz Diorite Dike
Quartz Vein

HOSTROCK COMMENTS: Unnamed serpentine body, probably of Paleozoic age, is deposit host.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: SHAFT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1937
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 34.3000 Grams per tonne
Gold 54.2000 Grams per tonne
COMMENTS: Over 20 cm. at the shaft collar. Another sample (60 cm.), from the outcrop 3 metres easterly from the shaft, assayed gold, 75.4 g/t.
REFERENCE: Minister of Mines Annual Report 1937, page F9.

CAPSULE GEOLOGY

Massive serpentine, probably correlative with the Permian and older Shulaps Ultramafic Complex, is cut by several east trending and steeply south dipping diorite and quartz diorite dykes related to the nearby Cretaceous to Tertiary Bendor pluton. Irregular fissure veins with an average width of 15 centimetres occur most commonly along the dyke contact as well as branching into the serpentine. Streaks and pods of pyrite, arsenopyrite and chalcopyrite occur in sheared siliceous gangue with occasional quartz and calcite streaks. Oxidation is pronounced to over 15 metres depth.

One assay gave a high of 75.4 grams per tonne gold; another sample assayed 54.2 grams per tonne gold and 34.3 grams per tonne silver (Minister of Mines Annual Report 1937, page F9). From 1938 to 1940, 51 tonnes of ore was processed yielding 3732 grams of gold, 404 grams of silver and 199 kilograms of copper.

CAPSULE GEOLOGY

There are at least two adits and possibly a third. The Jewel prospect lies directly north of the Little Gem prospect (092JNE068) and some of the workings discussed in older reports may now be included in the Little Gem.

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EMPR INDEX 3-201
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EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by J.S. Stevenson, 1948)
GSC MEM 130; 213
GSC OF 482
GSC P 43-15, 77-2 (GSC 76-50)
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: BNC

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE109**

NATIONAL MINERAL INVENTORY:

NAME(S): **MORNING GLORY**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 37 05 N
LONGITUDE: 122 02 40 W
ELEVATION: 855 Metres

NORTHING: 5607788
EASTING: 567599

LOCATION ACCURACY: Within 500M

COMMENTS: Located on Phair Creek, south of Cayoosh Creek.

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal Epigenetic

COMMENTS: Vein is up to 3.6 metres wide.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Unknown

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Argillite
Quartz Vein
Diorite

HOSTROCK COMMENTS: Fine-grained diorite sill within dark argillites.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

A quartz vein, up to 3.6 metres in width, lies conformably between Mississippian to Jurassic Bridge River Complex (Group) argillite and a fine-grained diorite sill. The argillites are locally folded and contorted. The quartz vein, along with stringers and lenses, contain pyrrhotite and pyrite with reported assays of 0.34 gram gold per tonne (Property File - McLeod, 1934).

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EMPR AR 1935-F9
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (*Report by McLeod, 1934)
GSC OF 482
GSC P 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE110**

NATIONAL MINERAL INVENTORY: 092J9 Fsp1,Tlc1

NAME(S): **LUCKY JANE**, LAKE SHORE

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 36 50 N
LONGITUDE: 122 25 55 W
ELEVATION: 360 Metres

NORTHING: 5607043
EASTING: 540190

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located a "few miles northeast" of D'Arcy on the Pacific Eastern Railway (Geological Survey of Canada, Economic Geology Series No. 2, page 37)

COMMODITIES: Talc Fluorite

MINERALS

SIGNIFICANT: Talc Fluorite Apatite
ASSOCIATED: Magnetite Actinolite
ALTERATION: Pyrite Limonite Talc
ALTERATION TYPE: Oxidation Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Metamorphic Epigenetic Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite
SHAPE: Irregular
MODIFIER: Sheared
DIMENSION: STRIKE/DIP: 010/80W TREND/PLUNGE:
COMMENTS: Vein is soft, fissile and intensely slickensided. Bands to 3 metres in width.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Tertiary
Mesozoic-Cenozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal
Coast Plutonic Complex

LITHOLOGY: Chlorite Slate
Quartzite
Schist
Greenstone
Granite
Granodiorite
Gneissic Granodiorite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE:

CAPSULE GEOLOGY

The Lucky Jane deposit is located on the west side of Anderson Lake on the Pacific Eastern Railway about 800 metres south of McGillivray Creek. All the workings, including several short (longest 30 metres) tunnels, are close to the railway tracks. The deposit was worked from 1917 to 1935 and produced approximately 455 tonnes of talc. The earlier operator was the Pacific Roofing Company, who shipped crude talc to Vancouver. In later years British Columbia Quarries Ltd. also made intermittent shipments.

A 5-kilometre wide belt of sheared metasediments, consisting of chlorite slates, grey quartzite, schist and altered greenstones of the Mississippian to Jurassic Bridge River Complex (Group) are wedged between granodiorite of the Jurassic to Tertiary Coast Plutonic Complex on the north, and Tertiary granite on the south. Granodiorite dykes have apparently intruded the metasediment/volcanic package prior to the shearing event which produced the talc and are believed to be related to the Coast Plutonic Complex.

The talc occurs in bands up to 3 metres wide, or as narrow veins which pinch and swell, following erratic paths within shears in the metasediments and greenstone. The most important band, the northerly band, strikes 010 degrees and dips 80 degrees west. The talc is light greenish-grey to dark green, highly sheared, soft, fissile and

CAPSULE GEOLOGY

intensely slickensided. Impurities such as pyrite, magnetite, limonite and actinolite occur. Two talc samples yielded the following percentages (Spence, 1940):

Silica	57.62	58.06
Ferrous Oxide	5.31	4.91
Ferric Oxide	0.80	0.11
Alumina	2.46	2.25
Lime	0.10	trace
Magnesia	28.53	28.82
Carbon dioxide	nil	0.90
Water > 105 C	4.75	5.46
Total	99.57	99.70

The granite intrusion to the south of the talc deposit is highly miarolitic and contains fluorite and apatite as accessory minerals.

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GSC EC GEOL *2, p. 37
GSC OF 482
GSC P 77-2 (Sample GSC 76-49)
GSC SUM RPT 1917, Pt. B, p. 22
CANMET RPT *803, p. 55

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/17

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE111**

NATIONAL MINERAL INVENTORY:

NAME(S): **JIM CREEK**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 56 55 N
LONGITUDE: 122 33 20 W
ELEVATION: 2100 Metres

NORTHING: 5644204
EASTING: 531221

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located at the head of Jim Creek, west of Shulaps Peak.

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite
ALTERATION: Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform
CLASSIFICATION: Replacement Metamorphic Igneous-contact Industrial Min.
TYPE: Q01 Jade
SHAPE: Irregular
DIMENSION: 4 x 1 x 1 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Main massive cigar-shaped deposit, also botryoidal nephrite in 30 to 60 centimetre wide bands. Deposit is an estimated 10 tonnes.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic Paleozoic	Bridge River	Undefined Formation	Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Chert
Rodingite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact Regional RELATIONSHIP: GRADE: Greenschist
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Jim Creek nephrite showing is located at the headwaters of Jim Creek, 3.8 kilometres northeast of the west end of Marshall Creek. The showing is a cigar-shaped mass of nephrite, 1 by 1 by 4 metres, and is within calc-silicate altered serpentinite melange (in part rodingite) of the Shulaps Ultramafic Complex and adjacent to chert of the Mississippian to Jurassic Bridge River Complex (Group). Botryoidal nephrite occurs as thin ribbons (30 to 60 centimetres thick), within serpentinite, but is not of commercial value. The main showing is an estimated 10 tonnes. Jim Creek, directly below the deposit, contains alluvial boulders of nephrite in such abundance as to suggest an alternate, yet undiscovered, source in the area.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC P 78-19, pp. 21,26,27
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE112**

NATIONAL MINERAL INVENTORY: 092J16,15, O2 Asb1

NAME(S): **SHULAPS MTN**, HAMIL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 57 30 N
LONGITUDE: 122 29 55 W
ELEVATION: 2850 Metres

NORTHING: 5645311
EASTING: 535214

LOCATION ACCURACY: Within 1 KM

COMMENTS: South of small lake off south fork of Retaskit Creek. Other asbestos showings also reported at the heads of Brett and Hog Creeks.

COMMODITIES: Chrysotile Asbestos

MINERALS

SIGNIFICANT: Chrysotile Picrolite Asbestos
COMMENTS: Intermediate between chrysotile and picrolite.
ASSOCIATED: Serpentinite
ALTERATION: Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Metamorphic Industrial Min.
TYPE: M06 Ultramafic-hosted asbestos
COMMENTS: Slip-fibre length 15 centimetres long.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Syn-mineralization
GRADE:

CAPSULE GEOLOGY

The Shulaps Mountain asbestos prospect is located at the headwaters of Retaskit Creek, 3.6 kilometres east of Shulaps Peak. The asbestos, intermediate between chrysotile and picrolite, is within serpentinite of the Permian and older Shulaps Ultramafic Complex. The asbestos occurs along fractures in the serpentinite forming fibres up to 15 centimetres long; it's extent is very limited.

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EMPR ASS RPT 19599
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1990, pp. 75-83
EMPR OF 1990-10; 1995-25
CMH 1953, p.87; 1954, p. 87

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE113**

NATIONAL MINERAL INVENTORY:

NAME(S): **CADWALLADER CREEK**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 06 N
LONGITUDE: 122 46 15 W
ELEVATION: 1280 Metres

NORTHING: 5624088
EASTING: 516160

LOCATION ACCURACY: Within 5 KM

COMMENTS: Located above the Pioneer mine (092JNE004) (Geological Survey of Canada Memoir 213, page 71).

COMMODITIES: Talc Chromium

MINERALS

SIGNIFICANT: Talc Chromite Magnetite
ALTERATION: Talc Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Permian-Triassic
Jurassic-Cretaceous
Permian

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

President Ultramafics
Bralorne Igneous Complex

LITHOLOGY: Serpentinite
Chert
Argillite
Diorite
Gabbro
Sodic Granite
Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Cadwallader Creek talc showing occurs in sediments of the Mississippian to Jurassic Bridge River Complex (Group) consisting of chert and argillite. Serpentinite of the President Ultramafics, which are thought to be correlative with the Permian and older Shulaps Ultramafic Complex, also occur.

Generally, the talc is associated with approximately equal amounts of ankerite and contains serpentine, disseminated sulphides (mostly pyrite), magnetite and chromite. The colour varies from creamy white to dark reddish purple. The believed source of the altering thermal solutions are the late siliceous differentiates of the nearby Permian Bralorne Igneous Complex or, less likely, the Cretaceous to Tertiary Bendor pluton.

In the Pioneer Extension workings, a shaft cuts through 30 metres of highly talcose rock lying beneath an albitic dyke. Nodules of Bridge River chert and argillite are found within the talc bed. It has been suggested that this particular showing of talc may not be derived from serpentinite but directly from the metasediments. Magnesium, necessary for this transformation, could have been supplied from the nearby Bralorne gabbros and diorites or from late solutions emanating from the ultramafic bodies themselves. Analysis of the talc in 1937 yielded the following results (in per cent) (Geological Survey of Canada Memoir 213, page 71):

Silica 58.40
Ferric Iron (+ minor alumina) 8.07
Magnesia 29.66
Water (by difference) 3.87

A 30-metre wide zone of talc rock is also found on the north border of a serpentinite belt separating the altered ultramafics from

MINFILE NUMBER: **092JNE113**

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 706
REPORT: RGEN0100

CAPSULE GEOLOGY

soda-granite. Albitite dykes intrude the talcose zones.

BIBLIOGRAPHY

EMPR FIELDWORK 1987, pp. 93-104
EMPR OF 1987-11; 1988-19
GSC MAP 430A
GSC MEM *213, p. 71
GSC OF 482
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE114**

NATIONAL MINERAL INVENTORY:

NAME(S): **ST. JOHN TALC**, CAYOOSH CREEK

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 39 10 N
LONGITUDE: 122 00 35 W
ELEVATION: 480 Metres

NORTHING: 5611681
EASTING: 570004

LOCATION ACCURACY: Within 500M

COMMENTS: Located on both sides of the Duffy Lake Road (along Cayoosh Creek), 9 kilometres from Lillooet.

COMMODITIES: Talc Soapstone

MINERALS

SIGNIFICANT: Talc
ALTERATION: Serpentine Talc
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Replacement Hydrothermal Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite
COMMENTS: Line of disconnected lenses 0.6 metre wide by 30 metres long.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Unknown

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Ankerite Sericite Schist
Soapstone
Serpentinite
Argillite
Granite Dike

HOSTROCK COMMENTS: Granite dykes intrude argillite.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

CAPSULE GEOLOGY

In the upper workings, 30 metres above the road, two opencuts and strippings expose lenses 0.75 by 2 metres of serpentine and sheared soapstone. The serpentine contains 2.5-centimetre nodules of soapstone.

The best and largest showing occurs 5 metres to the west where lenses of soapstone/serpentine are 0.5 by 3 metres. Light green talc is located in the hanging wall of the serpentine, in bands 0.5 metre long by 5 centimetres thick. The soapstone is mottled grey-green and peppered by crystals of rusty ankerite.

The workings 20 metres below the road are about 100 metres southwest across strike from the upper lenses. A large opencut contains a small amount of soapstone occurring with serpentine in lenses parallel to the enclosing schist planes.

The host to all showings is ankeritic sericite schist, meta-sedimentary rocks of the Mississippian to Jurassic Bridge River Complex (Group) which lie in a 100 metres wide band striking northwest and dipping nearly vertical. Platey argillites lie conformably against the schist and are irregularly intruded by granite dyke.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (*Report on St. John Soapstone-Talc (1943))
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 708
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 73-17 & Map 13-1973

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/10

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE115**

NATIONAL MINERAL INVENTORY:

NAME(S): **AMA CREEK**, CREST

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 44 40 N
LONGITUDE: 122 00 25 W
ELEVATION: 1350 Metres

NORTHING: 5621877
EASTING: 570064

LOCATION ACCURACY: Within 1 KM
COMMENTS: Located at the head of Ama Creek.

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite Tremolite
COMMENTS: Tremolite in thin section.
ALTERATION: Albite Serpentine
ALTERATION TYPE: Albitic Serpentin'zn Rodingitiz'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Replacement Metamorphic Igneous-contact Industrial Min.
TYPE: Q01 Jade
SHAPE: Irregular
COMMENTS: "Vein-like" nephrite bands.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Serpentinite
Gabbro
Diorite Dike
Vein

HOSTROCK COMMENTS: Albitized gabbro.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Syn-mineralization
GRADE:

CAPSULE GEOLOGY

Serpentinities near the head of Ama Creek contain a zone of "whiterock" rodingite alteration in which two irregular veinlike bands of nephrite occur. The serpentine is a tectonic inclusion in albitized gabbro. The area is underlain by rock of the Mississippian to Jurassic Bridge River Complex (Group). A report on the Crest claims, which appear to cover the same ground, describes a 1-metre wide zone of bleached serpentine along the contact of a diorite dyke. The nephrite from the description of the "veins" is apparently not of commercial grade.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 78-19

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/11

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE116**

NATIONAL MINERAL INVENTORY:

NAME(S): **APPLESPRING CREEK**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 48 45 N
LONGITUDE: 122 02 30 W
ELEVATION: 360 Metres

NORTHING: 5629412
EASTING: 567516

LOCATION ACCURACY: Within 5 KM

COMMENTS: Located on the "west side of Bridge River about 450 metres south of the cable ferry downstream from the mouth of Applespring Creek."

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite
ASSOCIATED: Tremolite
ALTERATION: Serpentine
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Replacement Metamorphic Igneous-contact Industrial Min.
TYPE: K09 Wollastonite skarn

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite

HOSTROCK COMMENTS: Serpentine body is south of, and not part of, the main ultramafic body (although probably related).

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
COMMENTS: Situated along the Yalakom fault zone.

PHYSIOGRAPHIC AREA: Pavilion Ranges

CAPSULE GEOLOGY

The deposit is described as "semi-nephrite" or non-commercial type. The deposit is 45 to 60 centimetres wide consisting of pale green to grey waxy nephrite occurring as sheared lenses, nodules and layers in sheared tremolite within a pronounced fault in serpentinite. The showing is within the Yalakom fault zone and lies southwest of the main body of Permian and older Shulaps Ultramafic Complex.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Holland, S.S. (1962): Jade in British Columbia)
GSC OF 482
GSC P 78-19

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/14

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE117**

NATIONAL MINERAL INVENTORY:

NAME(S): **HORSESHOE BEND**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 35 N
LONGITUDE: 122 09 45 W
ELEVATION: 410 Metres

NORTHING: 5634560
EASTING: 558944

LOCATION ACCURACY: Within 500M

COMMENTS: On the west wall of the "horseshoe bend" in Bridge River, downstream from the mouth of Yalakom River.

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite
COMMENTS: Nephrite occurs as alluvial boulders

ALTERATION: Serpentine

ALTERATION TYPE: Serpentin'zn Rodingitiz'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Placer Industrial Min.
TYPE: K09 Wollastonite skarn

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Rodingite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pavilion Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

The Horseshoe Bend alluvial, nephrite/jade showing is located on the west bank of the Horseshoe Bend in the Bridge River, as well as within Bridge River, 1 kilometre southeast of the mouth of Yalakom River. Rodingite as irregular masses outcrop on the river bank and is within sheared serpentinite of the Permian and older Shulaps Ultramafic Complex. Nephrite is not found in place, but is present as boulders in the river. The nephrite is a hydrothermal alteration product of ultramafic rocks; the nephrite has subsequently been eroded and deposited in the river as alluvial boulders.

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EMPR BULL 32 (Map)
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Horseshoe Bend placer operations; plans & maps)
GSC OF 482
GSC P 78-19

DATE CODED: 1985/07/24
DATE REVISED: 1990/07/09

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE118**

NATIONAL MINERAL INVENTORY:

NAME(S): **NOEL CREEK**, ROYAL JADE MINE, CAR

STATUS: Past Producer Open Pit

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J10W

BC MAP:

LATITUDE: 50 44 45 N

LONGITUDE: 122 48 57 W

ELEVATION: 1530 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the west side of Noel Creek, approximately 3.5 kilometres south of Bralorne (Geological Survey of Canada Paper 72-53 p. 44).

UTM ZONE: 10 (NAD 83)

NORTHING: 5621577

EASTING: 512993

COMMODITIES: Jade/Nephrite Gold Gemstones

MINERALS

SIGNIFICANT: Nephrite Gold

ASSOCIATED: Tremolite Titanite Talc Magnesite Calcite

Quartz

ALTERATION: Clinozoisite Talc Magnesite Calcite Silica

COMMENTS: Clinozoisite-carbonate reaction zone.

ALTERATION TYPE: Quartz-Carb. Serpentin'zn Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Replacement Metamorphic Igneous-contact Industrial Min.

TYPE: Q01 Jade

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Permian

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex

LITHOLOGY: Serpentinite
Listwanite
Greenstone
Diorite
Meta Sediment/Sedimentary
Granodiorite Dike
Feldspar Porphyry Dike

HOSTROCK COMMENTS: Bridge River Complex ranges from Mississippian to Middle Jurassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Syn-mineralization

GRADE:

INVENTORY

ORE ZONE: QUARRY

REPORT ON: Y

CATEGORY: Combined

YEAR: 1972

QUANTITY: 525 Tonnes

COMMODITY

GRADE

Jade/Nephrite 100.0000 Per cent

COMMENTS: Possible and probable reserves in rejected 13.5 tonne block-cuttings and boulders.

REFERENCE: Geological Survey of Canada Paper 78-19.

CAPSULE GEOLOGY

Jade has been quarried on the west side of Noel Creek, 5 kilometres south of the Bralorne mine and 62 kilometres west of Lillooet.

Northwest of Lillooet in the Bralorne area, metasediments and volcanics of the Mississippian to Middle Jurassic Bridge River Complex are cut by lenses of Alpine-type serpentinite of the Permian Bralorne Igneous Complex, and by minor dykes of granodiorite and feldspar porphyry.

Two deposits of jade have been reported at Noel Creek. One is a "semi-nephrite" with shredded tremolite, clinozoisite and titanite, and is associated with listwanites (quartz-calcite-magnesite). The other deposit, about 300 metres to the north, is a south dipping band

CAPSULE GEOLOGY

of semi-nephrite occurs between a listwanite on the hanging wall and a clinozoisite-carbonate contact reaction zone on the footwall. Reports on the Car claim, which covers the old workings, describe similar carbonate altered serpentinite and listwanites. Areas of talc-carbonate and calcite-magnesite veinlets are reported at serpentinite-greenstone contacts, which contain small lenses of low grade nephrite. Possible reserves are 480 tonnes and probable reserves are 45 tonnes in rejected 13.5 tonne block-cuttings and boulders (Geological Survey of Canada Paper 78-19). Visible gold was said to have been found in quartz stringers in low grade jade or silicified greenstone, although recent attempts (1981) to locate such an occurrence were unsuccessful.

In 1969, several tonnes of low grade nephrite were cut and sold from the west side of Noel Creek. During the early 1970's Mr. H. Street (owner) was reported to be producing jade from a contact zone between diorite and ultramafic rocks (Geological Survey of Canada Paper 72-53, page 44).

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1990, pp. 75-83
EMPR OF 1988-3; 1990-10
GSC MEM 130, p. 77
GSC OF 482
GSC P *72-53, p. 44; *78-19

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/20

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE119**

NATIONAL MINERAL INVENTORY:

NAME(S): **D'ARCY NEPHRITE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 33 54 N
LONGITUDE: 122 29 15 W
ELEVATION: 630 Metres

NORTHING: 5601578
EASTING: 536297

LOCATION ACCURACY: Within 500M

COMMENTS: One mile northwest of D'Arcy, just off the powerline road.

COMMODITIES: Jade/Nephrite Gemstones

MINERALS

SIGNIFICANT: Nephrite
ASSOCIATED: Tremolite Chromite Diopside
COMMENTS: Tremolite as "shreds" and prismatic grains.
ALTERATION: Clinozoisite Chlorite
ALTERATION TYPE: Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Replacement Metamorphic Igneous-contact Industrial Min.
TYPE: M04 Magmatic Fe-Ti±V oxide deposits
COMMENTS: Widest band is 50 centimetres wide and 150 metres long.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Upper Triassic	Cadwallader	Hurley	
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Serpentinite
Andesite
Vein

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Cadwallader
GRADE:

CAPSULE GEOLOGY

Nephrite is found in small lenses within serpentinite at the contact with andesite. The area is underlain by sediments and volcanics of the Upper Triassic Hurley Formation, Cadwallader Group and Mississippian to Jurassic sediments and volcanics of the Bridge River Complex (Group). The serpentinite may be related to the Permian and older Shulaps Ultramafic Complex.

The widest band is 50 centimetres in a zone trending northwest for 150 metres. The grade is not high; it is termed "semi-nephrite" and contains much shredded tremolite. Fractured chromite grains within the nephrite are partly replaced by chlorite. Clinozoisite is present in the alteration zone and minor amounts of prismatic tremolite and diopside are present.

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482
GSC P 78-19

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/11

CODED BY: GSB
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE120**

NATIONAL MINERAL INVENTORY:

NAME(S): **PAUL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 30 N
LONGITUDE: 122 45 40 W
ELEVATION: 1220 Metres

NORTHING: 5648925
EASTING: 516766

LOCATION ACCURACY: Within 1 KM

COMMENTS: Reported to be about 5 kilometres northwest of Tyaughton Lake and between elevations 600 to 1000 metres. However, this area is all above 1150 metres elevation.

COMMODITIES: Mercury

MINERALS

SIGNIFICANT: Cinnabar
ALTERATION: Carbonate Serpentine
ALTERATION TYPE: Carbonate Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Epithermal
TYPE: I08 Silica-Hg carbonate

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Unnamed/Unknown Group	Silverquick	
Paleozoic-Mesozoic	Bridge River	Unnamed/Unknown Formation	
Unknown			Unnamed/Unknown Informal

LITHOLOGY: Andesite
Greenstone
Chert
Volcanic Pebble Conglomerate
Chert Pebble Conglomerate
Andesite Breccia

HOSTROCK COMMENTS: Silverquick Conglomerate possibly overlies the Taylor Creek Group.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Methow

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Paul mercury showing is on the hillside west of Relay Creek, 1 kilometre northwest of the mouth of North Cinnabar Creek. The showing is within a panel of andesite breccia, chert pebble conglomerate and volcanic pebble conglomerate of the Upper Cretaceous Silverquick Conglomerate. This panel is thrust over chert and greenstone of the Mississippian to Jurassic Bridge River Complex (Group). Cinnabar occurs as veinlets and disseminations together with carbonate minerals, in carbonatized and fractured Silverquick Conglomerate rocks.

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EMPR GEM *1969-185
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE121**

NATIONAL MINERAL INVENTORY:

NAME(S): **WAYSIDE (NEW DISCOVERY)**, NEW DISCOVERY

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 52 15 N

LONGITUDE: 122 50 05 W

ELEVATION: 700 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Massive sulphide showing, approximately 750 metres southwest of the Wayside mine (092JNE030), on the northwest side of Carpenter Creek (Assessment Report 14164).

UTM ZONE: 10 (NAD 83)

NORTHING: 5635474

EASTING: 511630

COMMODITIES: Gold

Copper

Zinc

Lead

MINERALS

SIGNIFICANT: Pyrite Sphalerite Chalcopyrite Galena Pyrrhotite

ASSOCIATED: Pyrite Pyrrhotite

ALTERATION: Sericite Chlorite

ALTERATION TYPE: Sericitic

Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratabound

Massive

Stratiform

CLASSIFICATION: Volcanogenic

TYPE: G05 Cyprus massive sulphide Cu (Zn)

DIMENSION: 140 x 75 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Stratiform lenses

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Permian

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex

LITHOLOGY: Greenstone
Augite Diorite
Argillite
Chert

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: NEW DISCOVERY

REPORT ON: Y

CATEGORY: Inferred
QUANTITY: 150000 Tonnes

YEAR: 1985

COMMODITY

Copper 1.7600 Per cent

Zinc 3.0300 Per cent

COMMENTS: 'Potential Reserves' using a true thickness of 4.8 metres.
Additional minor precious metals. See Wayside (092JNE030).

REFERENCE: Assessment Report 14164, page 31 (Amazon Petroleum Corp.).

CAPSULE GEOLOGY

The Wayside (New Discovery) massive sulphide occurrence is located approximately 750 metres southwest of the Wayside mine (092JNE030), on the northwest side of Carpenter Creek. The area is underlain by Mississippian to Jurassic Bridge River Complex (Group) argillites, cherts and greenstone. The strata trends generally north with near vertical dips, and are bounded on the north and south margins by augite diorite of the Permian Bralorne Igneous Complex. The host rock is vesicular greenstone which exhibits some chloritic alteration and pervasive sericitic alteration.

Drilling has outlined the deposit to be stratiform in nature. On the hanging wall, copper-zinc mineralization is cutoff followed by up to 100 metres of massive pyrite. The footwall is mineralized with pyrrhotite and some chalcopyrite. Pyrite is the dominant mineral in the deposit, followed by pyrrhotite, sphalerite and chalcopyrite with very minor galena.

Potential reserves are 150,000 tonnes grading 1.76 per cent

CAPSULE GEOLOGY

copper, 3.03 per cent zinc and minor precious metals (Assessment Report 14164, page 31).
The property is held by International Wayside Gold Mines Ltd.

BIBLIOGRAPHY

EMPR AR 1906-181; 1907-L145; 1911-K188; 1912-K191; 1913-K265; 1914-K371; 1915-K282; 1916-K269; 1917-231; 1918-K231, 241; 1919-N178, 186; 1920-N167, 173; 1921-G193; 1922-N136; 1923-A165; 1924-B141; 1927-C216; 1928-C218; 1929-C235; 1930-A202; 1932-A217; 1933-A267; 1935-G42; 1946-A113; 1947-A135; 1948-A106; 1949-A106; 1950-109; 1951-123; 1952-113; 1960-20; 1961-25; 1962-21
EMPR ASS RPT *13605, *14164, 17091, 18240, 23334
EMPR BULL 1 (1932), p. 76; 1 (1934), p. 42; 20 (Part IV), p. 33
EMPR EXPL 1976-E124; 1977-E170; 1978-E179; 1979-186; 1983-323; 1985-C226; 1988-C124
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEM 1972-283; 1974-206
EMPR GEOLOGY 1975, p. G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10; 1999-2
EMPR P *1995-3, pp. 98-101
EMPR PF (Reports by *J.P. Elwell, 1971 and S.F. Kelly, 1972; *Lammle, C.A.R. (1974): Numerous earlier reports, maps and plans, see 092JNE030; International Wayside Gold Mines Ltd. Website (Mar. 1999): The Wayside Property, 2 p.)
GSC MAP 430A
GSC MEM 130, p. 95; *213, p. 132
GSC OF 482
GSC P 73-17
GSC SUM RPT 1932 Part AII, p. 70
CJES Vol.24 (1987), pp. 2279-2291
GCNL #225, 1980; #194, 1981; #180, 1982; #133, #178, #240, #241, 1983; #31, #90, #115, #181, #206, #211, 1984; #71, #133, #188, #192, 1985; #79, #120, #226, 1986; #63, #120, 1989; #211, #227, 1991
IPDM May/June, 1984; May/June, Sept., 1985
N MINER July 17, 1975; June 17, 1977; Feb.18, 1982
V STOCKWATCH Apr.10, 1989

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/15

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE122**

NATIONAL MINERAL INVENTORY:

NAME(S): **MEAD LAKE**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

Open Pit

MINING DIVISION: Lillooet

LATITUDE: 50 47 22 N
LONGITUDE: 122 46 57 W
ELEVATION: 1369 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5626433
EASTING: 515331

LOCATION ACCURACY: Within 500M

COMMENTS: Location centered on quarry 3.3 kilometres north of the Pioneer mine
(Geological Survey of Canada Map 431).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Calcite

MINERALIZATION AGE: Paleozoic-Mesozoic

DEPOSIT

CHARACTER: Stratiform
CLASSIFICATION: Sedimentary
TYPE: R09 Limestone

Massive
Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Limestone
Chert
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Post-mineralization

GRADE:

CAPSULE GEOLOGY

A lens of light grey, coarse grained limestone outcrops 950 metres east of the south end of Mead Lake, 3.3 kilometres north of the Pioneer mine (092JNE004). The lens lies within chert and argillite of the Mississippian to Jurassic Bridge River Complex (Group). The limestone was quarried for lime for use at the Pioneer mine during the early 1930's when 23 tonnes were produced.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 13-1973; 430A; 431A
GSC MEM 213, pp. 11,12,72,73
GSC OF 482
GSC P 73-17, pp. 2,3

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/11

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE123**

NATIONAL MINERAL INVENTORY:

NAME(S): **MARSHALL RIDGE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 17 N
LONGITUDE: 122 35 01 W
ELEVATION: 1158 Metres

NORTHING: 5637459
EASTING: 529288

LOCATION ACCURACY: Within 500M

COMMENTS: Location centered on limestone outcrop 0.5 kilometres north of Carpenter Lake (Assessment Report 11784, Geological Map).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Calcite

MINERALIZATION AGE: Paleozoic-Mesozoic

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min.

TYPE: R09 Limestone

SHAPE: Tabular

MODIFIER: Faulted

DIMENSION: 900 x 500 Metres

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Permian-Triassic

GROUP

Bridge River
Fergusson

FORMATION

Undefined Formation
Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Limestone
Chert
Argillite
Chloritic Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1916

SAMPLE TYPE: Grab

COMMODITY

GRADE

Limestone

96.7300 Per cent

COMMENTS: Grade given for CaCO₃.

REFERENCE: Geological Survey of Canada Summary Report 1916, page 53.

CAPSULE GEOLOGY

The Marshall Ridge limestone showing is on the north side of Carpenter Lake on a precipitous slope, 3.5 kilometres south of Marshall Lake. The limestone is within a sequence of chert, argillite and chloritic schist of the Mississippian to Jurassic Bridge River Complex (Group), and is exposed over an area of 900 by 500 metres. A sample of limestone contained 96.73 per cent CaCO₃, 1.83 per cent MgCO₃, 0.46 per cent SiO₂, 0.23 per cent Al₂O₃ and 0.17 per cent Fe₂O₃ (Geological Survey of Canada Summary Report 1916, page 53).

BIBLIOGRAPHY

EMPR ASS RPT 11784
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 13-1973; 1610; 1882
GSC MEM 130
GSC OF 482
GSC P 73-17, pp. 2,3

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 720
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT 1915, pp. 75-85; *1916, p. 53

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/28

CODED BY: GSB
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE124**

NATIONAL MINERAL INVENTORY:

NAME(S): **WAYSIDE (COMMODORE)**, COMMODORE FRACTION (L.5503), COMMODORE,
3T, 3T

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:
LATITUDE: 50 52 30 N
LONGITUDE: 122 50 00 W
ELEVATION: 732 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Commodore adit (Assessment Report 17091). See Wayside (092JNE030).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5635938
EASTING: 511726

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite
ASSOCIATED: Quartz Albite
ALTERATION: Carbonate
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION:
COMMENTS: Dips vary between 45 and 51 degrees northeast.
STRIKE/DIP: 315/45N

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic Permian Unknown	Bridge River	Undefined Formation	Bralorne Igneous Complex Unnamed/Unknown Informal

LITHOLOGY: Sodic Granite Dike
Chert
Argillite
Volcanic
Augite Diorite
Albitite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY
Silver 56.9000 Grams per tonne
Gold 72.7000 Grams per tonne
COMMENTS: Sample over 10 centimetres along a 1.8 metre exposure of a 10-centimetre wide quartz-albite vein.
REFERENCE: Property File - Lammler, 1974.

CAPSULE GEOLOGY

The Wayside (Commodore) vein occurrences are located within 300 metres to the southwest of the Wayside mine (092JNE030), along the northwesterly facing slopes of Carpenter Lake. These structurally controlled, silicified zones were first exposed by short adits. The Commodore vein is hosted in a sodic granite dyke intruding the Mississippian to Jurassic Bridge River Complex (Group), near the southwest contact with the Permian Bralorne Igneous Complex. The Bridge River argillites, cherts and volcanics trend generally north with near vertical dips and are bounded on the north and south margins by stocks of augite diorite.

The fissure veins strike northwest and dip 45 to 54 degrees northeast, and consists of quartz and albite, with arsenopyrite and pyrite surrounded by carbonate-altered siliceous granite. Sampling over 1.8 metres of a 10-centimetre wide vein assayed 72.7 grams gold

CAPSULE GEOLOGY

per tonne and 56.9 grams silver per tonne (Lammle, 1974). Chevron's 1987 trench returned erratic gold values up to 3.45 grams gold per tonne over 0.55 metre (Assessment Report 17091).

The 3T vein is about 150 metres northwest of the Commodore vein; it has been suggested they may coalesce at depth. The 3 T vein adit was driven along the hanging wall of a sheeted albitite dyke. It follows a fissure striking northwest and dipping about 51 degrees northeast beneath a body of sodic granite. Quartz veins in the fissure carry gold values.

A drilling program was in progress on the Wayside properties at the end of 1991 with one phase of drilling about to begin on the Commodore and 3T veins (George Cross News Letter No.227, 1991).

The property is held by International Wayside Gold Mines Ltd.

BIBLIOGRAPHY

- EMPR AR 1906-181; 1907-L145; 1911-K188; *1912-K191; 1913-K265; 1914-K371; 1915-K282; 1916-K269; 1917-231; 1918-K231, 241; 1919-N178, 186; 1920-N167, 173; 1921-G193; 1922-N136; 1923-A165; 1924-B141; 1927-C216; 1928-C218; 1929-C235; 1930-A202; 1932-A217; 1933-A267; 1935-G42; 1946-A113; 1947-A135; 1948-A106; 1949-A106; 1950-109; 1951-123; 1952-113; 1960-20; 1961-25; 1962-21
- EMPR ASS RPT 7948, 12729, *13605, *14164, 16718, 17091, 18240, 23334
- EMPR BULL 1 (1932), p. 76; 1 (1934), p. 42; 20 (Part IV), p. 33
- EMPR EXPL 1976-E124; 1977-E170; 1978-E179; 1979-186; 1983-323; 1985-C226; 1988-C124
- EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
- EMPR GEM 1972-283; 1974-206
- EMPR GEOLOGY 1975, p. G58
- EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
- EMPR P *1995-3, pp. 98-101
- EMPR PF (Rpts. by *J.P. Elwell, 1971 and S.F. Kelly, 1972; *C.A.R. Lammle, 1974; Numerous earlier reports, maps and plans; International Wayside Gold Mines Ltd. Website (Mar. 1999): The Wayside Property, 2 p.)
- GSC MAP 430A
- GSC MEM 130, p. 95; *213, p. 132
- GSC OF 482
- GSC P 73-17
- GSC SUM RPT 1932 Part AII, p. 70
- CJES Vol.24 (1987), pp. 2279-2291
- GCNL #225, 1980; #194, 1981; #180, 1982; #133,#178,#240,#241, 1983; #31,#90,#115,#181,#206,#211, 1984; #71,#133,#188,#192, 1985; #79, #120,#226, 1986; #211,#227, 1991
- IPDM May/June 1984; May/June, Sept. 1985
- N MINER July 17, 1975; June 17, 1977; Feb.18, 1982

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/10

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE125**

NATIONAL MINERAL INVENTORY:

NAME(S): **NOEL**, AULT, CHIP,
N.B. 1, NB 1

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 40 29 N
LONGITUDE: 122 54 30 W
ELEVATION: 2100 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5613658
EASTING: 506477

LOCATION ACCURACY: Within 500M

COMMENTS: Located in a cirque at the headwaters of Noel, Waterfall and Ault
creeks, 13 kilometres southwest of Bralorne (Assessment Report
15278).

COMMODITIES: Lead Zinc Copper Silver Gold

MINERALS

SIGNIFICANT:	Pyrite	Galena	Sphalerite	Chalcopyrite
ASSOCIATED:	Quartz	Calcite	Feldspar	
ALTERATION:	Sericite	Silica	Limonite	Pyrolusite
ALTERATION TYPE:	Sericitic		Silicific'n	Oxidation
MINERALIZATION AGE:	Unknown			

DEPOSIT

CHARACTER: Vein Stratiform Massive
CLASSIFICATION: Volcanogenic
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 600 Metres STRIKE/DIP: 315/90 TREND/PLUNGE:
COMMENTS: Thicker veins have been traced discontinuously for 600 metres along
strike.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Hurley	
Jurassic-Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 77.8 +/- 2.9 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Sericite Schist
Quartz Rhyolite
Biotite Quartz Hornfels
Biotite Chlorite Schist
Cordierite Anthophyllite Schist
Chert
Felsic Tuff
Intermediate Tuff
Mafic Tuff
Quartz Diorite

HOSTROCK COMMENTS: Isotopic age date from Geological Survey of Canada Paper 77-2 (Sample
GSC 76-49).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader	Plutonic Rocks
METAMORPHIC TYPE: Regional Contact	RELATIONSHIP: Post-mineralization Syn-mineralization
	GRADE: Greenschist Amphibolite

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1991
SAMPLE TYPE: Chip	
<u>COMMODITY</u>	<u>GRADE</u>
Silver	2.0000 Grams per tonne
Gold	0.2700 Grams per tonne
Copper	0.0900 Per cent
Lead	0.6100 Per cent
Zinc	1.1000 Per cent

COMMENTS: From 0.20-metre chip sample R2-91CKR-005.
REFERENCE: Assessment Report 21995.

CAPSULE GEOLOGY

The Noel prospect is located in a cirque at the headwaters of Noel, Waterfall and Ault creeks, 15 kilometres south-southwest of Bralorne, British Columbia.

The first record of activity in the area was in the mid 1930s, when mineralization was apparently first discovered. In 1941, Bralorne Mines completed 335 metres of diamond drilling on the property. A number of trenches and pits were also excavated. In 1962, Hurley River Mines Ltd. examined the property on behalf of Amalgamated Resources Ltd. In 1980, an exploration program consisted of prospecting, mapping and sampling. Placer Development Ltd. conducted geochemistry and geophysical surveys in 1983. Geoquest Consulting Ltd. conducted a program of geological mapping and soil/rock geochemistry for Eureka Resources Ltd. In 1988, Goldpac Investments Ltd. staked the property, which was subsequently optioned to High Frontier Resources in 1990. In 1991, the claims were optioned to Kennecott Canada Inc.

Regionally, the Noel prospect covers part of an anvil-shaped roof pendant composed of the Upper Triassic Hurley Formation of the Cadwallader Group, close to the eastern margin of the Jurassic to Cretaceous Coast Plutonic Complex, 12 kilometres southwest of the Cadwallader fault zone along the Bridge River Complex. Intense, amphibolite grade, contact metamorphism and related polyphase deformation have obscured protolith textures. At least two phases of metamorphism have been recognized. Regional deformation consists of a pronounced, compositional layering, subparallel foliation and a gneissic layering. The Coast Plutonic Complex consists of granite, granodiorite and quartz diorite.

At the Noel prospect, rocks of the Hurley Formation are composed of: quartzite metamorphosed to biotite quartz hornfels; felsic massive aphyric tuff and minor lapilli tuff, quartz-eye rhyolite; intermediate tuffs, flows and fragmentals metamorphosed to biotite-chlorite, cordierite-anthophyllite and biotite hornfels and schists; mafic lapilli tuffs and flows metamorphosed to biotite-chlorite schists, agglomerates, chert; shale and sandstone metamorphosed to biotite-cordierite schists that are tightly folded and have a strong schistosity. In the northeast portion of the prospect, units trend northwest and dip steeply east. In the southwest part of the property, units trend northeast and dip moderately northwest. These opposing structural trends are attributed to a series of northwest trending rotational faults. Granite dikes cut through and basalt dikes are parallel to the foliation in the Hurley Formation.

Sericite alteration adjacent to mineralized zones and the quartz-eye porphyry form the dominant alteration type at the Noel prospect. Sericite alteration forms elongate lenses parallel to foliation over a discontinuous strike length of 600 metres. Its development is attributed to an epigenetic hydrothermal event synchronous with the emplacement of the quartz-eye rhyolite. Silicification is also apparent adjacent to mineralized zones. Intense oxidation has produced locally gossanous areas containing limonite and pyrolusite.

Mineralization consists of four types: 1) disseminated to semi-massive coarse-grained pyrite in silicified mafic volcanics, 2) massive pyrite-silica lenses, 3) quartz-sphalerite with minor galena and chalcopyrite and 4) siliceous pyritic lenses. All of these mineralization types are hosted within or related to sericitic lenses. Calcite and feldspar also occur in sericitic alteration envelopes.

Finely disseminated pyrite is found throughout the metasediments, and locally, semi-massive to massive sulphide lenses ranging a few centimetres to 0.5 metre in width occur conformable to schistosity. The sulphides may comprise up to 50 per cent of the layers.

One sample, taken over 0.1 metre in 1986, assayed 14.25 per cent lead, 7.65 per cent zinc, 2.52 per cent copper, 0.68 gram per tonne gold and 27.08 grams per tonne silver (Assessment Report 15278). In 1991, 127 lithochemical samples were taken and analysed for major oxides and 42 analysed for trace elements. Chip sample R2-91CKR-005, taken in 1991, yielded 0.27 gram per tonne gold, 2.0 grams per tonne silver, 1.10 per cent zinc, 0.61 per cent lead and 0.09 per cent copper over 0.20 metre (Assessment Report 21995). Chip sample R2-91CKR-004, yielded 0.09 gram per tonne gold, 1.67 grams per tonne silver, 0.65 gram per tonne lead, 0.55 per cent zinc and 0.04 per cent copper over 2 metres. Several other samples also produced anomalous gold, silver, zinc and lead values.

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 725
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR OF 1999-2
GSC OF 482
GSC P 77-2 (Sample GSC 76-49)
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE126**

NATIONAL MINERAL INVENTORY:

NAME(S): **KING, MATSON**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J16E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 20 N
LONGITUDE: 122 12 35 W
ELEVATION: 1830 Metres

NORTHING: 5624793
EASTING: 555724

LOCATION ACCURACY: Within 500M

COMMENTS: Near Mission Pass, about one kilometre southeast of Carpenter Lake.

COMMODITIES: Lead Zinc Gold Silver

MINERALS

SIGNIFICANT: Galena Sphalerite Pyrite Arsenopyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Anglesite Cerussite Smithsonite
ALTERATION TYPE: Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION:
COMMENTS: Vein strike varies from 075 to 160 degrees and dips vary from 75 to 90 degrees.
STRIKE/DIP: 075/90 TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic Eocene	Bridge River	Undefined Formation	Mission Ridge Pluton

LITHOLOGY: Siltstone
Limestone
Granodiorite
Chert

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River

CAPSULE GEOLOGY

The King polymetallic vein showing is located on Mission Ridge, 2.5 kilometres northeast of Mission Pass. The showing is within chert, argillite, siltstone and interbedded limestone of the Mississippian to Jurassic Bridge River Complex (Group), cut by granodiorite dykes of the Eocene Mission Ridge pluton.

Quartz-calcite veins, up to 1.35 metres thick and continuous for up to 115 metres along a strike of 075 to 160 degrees and steep dip, contain galena, sphalerite, arsenopyrite and pyrite, with values in gold and silver. Alteration minerals include anglesite, cerussite and smithsonite. The veins parallel a fault that strikes approximately 155 degrees. The fault most likely is the Mission Ridge fault (or subsidiary structure) which juxtaposes low grade metamorphic Bridge River rocks and the Mission Ridge pluton.

The King showings may overlap the Rhodes showing (092JNE040), although, from the short description available the latter apparently occurs further south, just east of Mission Pass.

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CJES 1987, Vol. 24, pp. 2279-2291
GCNL #247, 1988

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 727
REPORT: RGEN0100

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DATE CODED: 1987/03/03
DATE REVISED: 1991/02/20

CODED BY: MM
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE127**

NATIONAL MINERAL INVENTORY: 092J15 Mgl

NAME(S): **LIZA LAKE B**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 57 31 N
LONGITUDE: 122 39 18 W
ELEVATION: 1280 Metres

NORTHING: 5645279
EASTING: 524230

LOCATION ACCURACY: Within 500M
COMMENTS: Located 1 kilometre west of Liza Lake.

COMMODITIES: Magnesite

MINERALS

SIGNIFICANT: Magnesite
ASSOCIATED: Calcite Mariposite Chromite
ALTERATION: Serpentine Magnesite Calcite
ALTERATION TYPE: Quartz-Carb. Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stratabound
CLASSIFICATION: Replacement Hydrothermal Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Magnesite
Serpentinized Peridotite
Vein

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Liza Lake B magnesite showing, 1 kilometre west of Liza Lake, is within serpentinized peridotites of the Permian and older Shulaps Ultramafic Complex.

The showing area is reported to be in the order of 15.8 by 14.6 metres. It is similar to the "Liza Lake A" magnesite in that it contains massive and crystalline magnesite cut by numerous veinlets of clear chalcedonic quartz. Locally the massive magnesite is vuggy with chalcedony filling the vugs. Minor mariposite and individual grains and clusters of chromite are common. Massive magnesite was analysed by the Geological Survey of Canada (Memoir 130) and was found to consist of 42.2 per cent MgO, 3.25 per cent CaO, 0.9 per cent Fe₂O₃, 0.59 per cent Al₂O₃, 48.55 per cent CO₂, 4.08 per cent SiO₂.

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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MEM *130, pp. 75-77
GSC SUM RPT 1915, pp. 83-84; 1916, pp. 48-52
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1987/03/03
DATE REVISED: 1991/09/11

CODED BY: BG
REVISED BY: RGG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE128**

NATIONAL MINERAL INVENTORY:

NAME(S): **MISSION MOUNTAIN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 44 00 N
LONGITUDE: 122 14 05 W
ELEVATION: 1200 Metres

NORTHING: 5620450
EASTING: 554006

LOCATION ACCURACY: Within 1 KM
COMMENTS: Located on Mission Mountain.

COMMODITIES: Magnesite

MINERALS

SIGNIFICANT: Magnesite
ASSOCIATED: Chromite
ALTERATION: Serpentine Magnesite Calcite
ALTERATION TYPE: Carbonate Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stratabound
CLASSIFICATION: Replacement Hydrothermal Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Peridotite
Serpentinite
Magnesite
Vein

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Several bodies of magnesite or carbonatized serpentine are reported on claims staked by a Mr. J.J. Devitt on Mission Mountain about 1940. They are supposedly within a three kilometre radius of Shalalth, British Columbia. The serpentinite is probably related to the Permian and older Shulaps Ultramafic Complex.

The largest body is in the order of 244 by 61 metres and is oxidized to a maximum depth of 1 to 3 centimetres. Samples assay about 3 per cent lime, 0.13 per cent iron and 40 per cent magnesite (Open File 1987-13). The magnesite carries unaltered chromite as grains or small accumulations.

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EMPR PF (Correspondence)
GSC OF 482

DATE CODED: 1987/03/03
DATE REVISED: 1991/09/11

CODED BY: BG
REVISED BY: BG

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE129**

NATIONAL MINERAL INVENTORY:

NAME(S): **KELVIN, ALMA, ROAD, OLYMPIC**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 53 25 N
LONGITUDE: 122 45 10 W
ELEVATION: 686 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5637653
EASTING: 517388

LOCATION ACCURACY: Within 500M

COMMENTS: The location is for the Kelvin zone; the Alma and Road zones are within one kilometre. About 8 kilometres northeast of Goldbridge, on south shore of Carpenter Lake.

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT:	Chalcopyrite	Pyrite	Arsenopyrite	Sphalerite			
ASSOCIATED:	Quartz	Calcite					
ALTERATION:	Sericite	Chlorite	Pyrite	Quartz	Carbonate		
ALTERATION TYPE:	Silicific'n		Carbonate	Sericitic		Chloritic	Pyrite
MINERALIZATION AGE:	Unknown						

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
SHAPE: Regular
MODIFIER: Sheared
COMMENTS: Vein "stringers", streaks, veinlets, locally massive mineralization strike southeast and dip steeply north.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Andesite
Argillite
Felsite Dike
Graphitic Schist
Serpentinized Ultramafic
Quartz Vein

HOSTROCK COMMENTS: Mineralization occurs at contact between Bridge River Complex rocks and felsite dykes, as well as within dykes.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1986
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	48.3000 Grams per tonne
Gold	22.5000 Grams per tonne

COMMENTS: Grab sample near Kelvin adit. Sample #7886 - banded, silicified graphitic schist containing pyrite.
REFERENCE: Assessment Report 14344.

CAPSULE GEOLOGY

Black graphitic schist and cherty argillites and andesites of the Mississippian to Jurassic Bridge River Complex (Group) are cut by felsic dykes and dyke-like serpentinized ultramafic bodies. The dykes are steeply dipping northeast and trend northwest. Three pre-1936 Kelvin adits explored chalcopyrite, pyrite, arsenopyrite and sphalerite-bearing quartz stringers along a shear contact between the andesite/argillite package and an altered felsic dyke. A grab sample of the graphitic schist assayed 22.5 grams gold per tonne and 48.3 grams silver per tonne (Assessment Report 14344). The Road zone, approximately 550 metres west-northwest of the

CAPSULE GEOLOGY

Kelvin zone, is hosted at the same dyke contact. The shear zone here is 3 to 4 metres wide and bleached with chloritic, sericitic and pyritic alteration. The best assays ran 5.8 grams gold per tonne, 0.83 per cent arsenic and 0.035 per cent antimony.

The Alma showing (one adit and pits) is about 500 metres west of the Kelvin zone. It consists of a quartz-carbonate altered zone hosted in andesite and contains pyrrhotite, chalcopyrite and sphalerite. Gold values grade from 0.28 to 0.36 grams per tonne.

All three occurrences are presently grouped with the adjoining Olympic property (see 092JNE107, 092JNE092 and 092JNE086).

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GCNL #243, 1985; #53, 1986
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DATE CODED: 1987/03/03
DATE REVISED: 1991/09/11

CODED BY: MM
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE130**

NATIONAL MINERAL INVENTORY:

NAME(S): **OLYMPIC (HILLSIDE)**, HILLSIDE 6 (L.6279)

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 30 N
LONGITUDE: 122 43 25 W
ELEVATION: 990 Metres

NORTHING: 5637814
EASTING: 519439

LOCATION ACCURACY: Within 500M

COMMENTS: Location is No. 1 adit on south side of Carpenter Lake, about 8.5 kilometres northeast of Goldbridge.

COMMODITIES: Antimony Gold

MINERALS

SIGNIFICANT: Stibnite Arsenopyrite Pyrrhotite

ASSOCIATED: Quartz Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations

SHAPE: Irregular

MODIFIER: Sheared

DIMENSION:

STRIKE/DIP: 110/70N

TREND/PLUNGE:

COMMENTS: Narrow vein in brecciated shear zone. Dips vary from 70 to 75 degrees.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Cretaceous-Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Tuff
Calcarenite
Diorite
Andesitic Tuff
Hornfels
Breccia

HOSTROCK COMMENTS: The showing occurs at the contact of two rock types.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Contact

RELATIONSHIP:

GRADE: Hornfels

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1986

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

0.7500

Grams per tonne

COMMENTS: From the Elizabeth trench.

REFERENCE: Assessment Report 14344.

CAPSULE GEOLOGY

The No. 1 adit zone on the Olympic property follows a steeply dipping, southeast trending, brecciated shear zone at the faulted contact between Mississippian to Jurassic Bridge River Complex (Group) andesitic and silicic tuffs and crystalline carbonates and diorite of the Cretaceous to Tertiary Bendor pluton. Contact metamorphism has hornfelsed the sediments. Two parallel, narrow quartz-carbonate veins follow the shear and are heavily mineralized with large stibnite crystals and finely disseminated arsenopyrite and pyrrhotite. Samples assays 0.75 gram gold per tonne; a nearby trench ran 0.65 gram per tonne gold over 15 centimetres (Assessment Report 14344).

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EMPR ASS RPT 8293, 8954, *11139, 12607, *14344

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 733
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR GEOLOGY 1975-G58
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17; 77-2 (GSC Sample 76-50)
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #6,#34,#53, 1986

DATE CODED: 1986/10/28
DATE REVISED: 1991/09/12

CODED BY: MM
REVISED BY: MM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE130**

MINFILE NUMBER: **092JNE131**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONGRESS (LOU)**, LOU

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

BC MAP:

LATITUDE: 50 53 52 N

LONGITUDE: 122 46 17 W

ELEVATION: 932 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of the northwest trending Lou vein, located immediately west of the Congress mine (092JNE029), approximately 6 kilometres northeast of Goldbridge (Assessment Report 14251).

UTM ZONE: 10 (NAD 83)

NORTHING: 5638482

EASTING: 516077

COMMODITIES: Gold

Antimony

Silver

MINERALS

SIGNIFICANT: Stibnite Tetrahedrite Arsenopyrite Pyrite Realgar

Kermesite

Mariposite

ASSOCIATED: Quartz

ALTERATION: Ankerite

Mariposite

ALTERATION TYPE: Carbonate

Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

Disseminated

Massive

Shear

CLASSIFICATION: Hydrothermal

Epigenetic

TYPE: I09 Stibnite veins and disseminations

DIMENSION: 440 x 12

Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Shear zone

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Paleozoic-Mesozoic

Bridge River

Undefined Formation

Unnamed/Unknown Informal

Tertiary

ISOTOPIC AGE: 67.1 +/- 2.2 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Whole rock

LITHOLOGY:

Basalt

Meta Sediment/Sedimentary

Chert

Argillite

Feldspar Porphyry Dike

HOSTROCK COMMENTS: Radiometric age date of dyke from Fieldwork 1985.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: LOU

REPORT ON: Y

CATEGORY: Inferred

YEAR: 1986

QUANTITY: 89793 Tonnes

COMMODITY

GRADE

Gold

2.4000

Grams per tonne

COMMENTS: Inferred (probable geological) reserves of open pit table oxide ore.

REFERENCE: George Cross News Letter No.26, 1986.

ORE ZONE: LOU

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1986

QUANTITY: 34466 Tonnes

COMMODITY

GRADE

Gold

2.7400

Grams per tonne

COMMENTS: Average grade of indicated (proven geological) oxide ore reserves at a 1:1 strip ratio; grade is over 20 metres.

REFERENCE: George Cross News Letter No.26, 1986.

CAPSULE GEOLOGY

The Congress (Lou) occurrence is located immediately west of the

CAPSULE GEOLOGY

Congress mine (092JNE029), approximately six kilometres northeast of Goldbridge.

The Lou zone consists of a 12-metre wide shear striking north to northeast along a Tertiary feldspar porphyry dyke which intrudes the contact between basalts and metasediments/cherts and argillites of the Mississippian-Jurassic Bridge River Complex (Group). The zone has been traced for 440 metres along strike. Potassium/argon analysis of the dyke suggests an age of 67.1 Ma +/- 2.2 Ma (Fieldwork 1985).

Massive, banded and disseminated stibnite, tetrahedrite, arsenopyrite and pyrite occur in narrow quartz veins and altered wallrock within the shear zone. Two potential ore shoots have been identified with grades up 12.686 grams per tonne gold over 3.4 metres (Assessment Report 15728). Other portions of the zone contain lower grades over narrow widths although alteration envelopes are locally up to 30 metres wide. Ankerite, mariposite and realgar (kermesite) are also reported.

Indicated reserves (proven geological) of open pittable oxide ore are 34,466 tonnes grading 2.74 grams per tonne gold. Inferred reserves (probable geological) of open pittable oxide ore are 89,793 tonnes grading 2.4 grams per tonne gold (George Cross News Letter #26, 1986).

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sketch map of Lou Zone tunnel, 1988)
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#168, 1986; #19,#29,#38,#52,#53,#98, 1987
IPDM Dec., 1985
N MINER Feb.2, Mar.9, 1987
NW PROSP Jan./Feb., 1989
V STOCKWATCH Aug.6, 1987

DATE CODED: 1986/12/05
DATE REVISED: 1991/02/19

CODED BY: BNC
REVISED BY: CID

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE132**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONGRESS (HOWARD)**, HOWARD

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 50 53 25 N

NORTHING: 5637643

LONGITUDE: 122 47 52 W

EASTING: 514223

ELEVATION: 663 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Howard adit portal, 1.2 kilometres west of the Congress mine (092JNE029), approximately 5 kilometres northeast of Goldbridge (Assessment Report 8704).

COMMODITIES: Gold

Antimony

Silver

Copper

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Tetrahedrite Stibnite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations

I01 Au-quartz veins

SHAPE: Bladed

DIMENSION: 82 x 2 Metres

STRIKE/DIP: 350/60W

TREND/PLUNGE:

COMMENTS: Average attitude of the Howard vein; the dimensions are of the best ore shoot defined by drilling in 1980.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Feldspar Porphyry Dike
Altered Gabbro
Meta Sediment/Sedimentary
Volcanic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: HOWARD

REPORT ON: Y

CATEGORY: Combined
QUANTITY: 267505 Tonnes

YEAR: 1986

COMMODITY: Gold GRADE: 11.3100 Grams per tonne

COMMENTS: Measured, indicated, inferred reserves; 15% classified as measured, based on underground sampling and surface and underground drilling.

REFERENCE: MDAP - Congress Project, Stage I Report, September 1988.

CAPSULE GEOLOGY

The Congress (Howard) occurrence is located 1.2 kilometres west of the Congress mine (092JNE029), approximately five kilometres northeast of Goldbridge.

The prospect is underlain by metasedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex (Group) into which Tertiary dykes have been intruded.

Underground workings follow a 2 to 7-metre wide quartz vein at the contact of an altered gabbro and a feldspar porphyry dyke. The vein strikes between 325 degrees and 035 degrees and dips from 75 to 55 degrees west; the vein attitude averages 350 degrees with a 60 degree west dip.

The vein is mainly quartz with disseminated to banded pyrite, arsenopyrite, tetrahedrite and stibnite. Quartz-ankerite alteration surrounds the shear.

Measured, indicated, inferred reserves are 267,505 tonnes grading 11.31 grams per tonne gold. Fifteen per cent of the reserves are classified as measured, based on underground sampling and surface

CAPSULE GEOLOGY

and underground drilling (Mine Development Assessment Process - Congress Project, Stage I Report, September 1988).

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GSC SUM RPT 1915, p. 84
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N MINER Mar.6, 1989
W MINER 1962, p. 35
Sebert, C.F.B. (1987): Description of 22 Mineral Properties, Bridge River Mining Camp, Unpublished B.Sc. Thesis, University of British Columbia

DATE CODED: 1986/12/05
DATE REVISED: 1991/03/19

CODED BY: MM
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE133**

NATIONAL MINERAL INVENTORY: 092J15 Au1

NAME(S): **CONGRESS (PAUL)**, PAUL, SLIDE

STATUS: Developed Prospect

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J15W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 50 54 18 N

LONGITUDE: 122 47 35 W

ELEVATION: 762 Metres

NORTHING: 5639281

EASTING: 514551

LOCATION ACCURACY: Within 500M

COMMENTS: Paul vein, on the north side of Gunn Creek, 2 kilometres northwest of its mouth (Assessment Report 14251).

COMMODITIES: Gold

Silver

Copper

Antimony

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Tetrahedrite Stibnite

ASSOCIATED: Quartz

ALTERATION: Ankerite Quartz

ALTERATION TYPE: Carbonate Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I09 Stibnite veins and disseminations

DIMENSION:

STRIKE/DIP: 112/

TREND/PLUNGE:

COMMENTS: Numerous small veins strike 112 degrees.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

ISOTOPIC AGE: 67.1 +/- 2.2 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Whole rock

LITHOLOGY: Greenstone

Basalt

Argillite

Feldspar Porphyry Dike

HOSTROCK COMMENTS: Age date of dyke from Fieldwork 1985.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

INVENTORY

ORE ZONE: PAUL

REPORT ON: Y

CATEGORY: Inferred

YEAR: 1986

QUANTITY: 83444 Tonnes

COMMODITY

GRADE

Gold

9.6000

Grams per tonne

COMMENTS: Possible underground reserves over a 1.1 metre width.

REFERENCE: George Cross News Letter No.26, 1986.

ORE ZONE: SLIDE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1986

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Gold

11.3000

Grams per tonne

COMMENTS: Sample across 2 metres.

REFERENCE: Mineral Exploration Group Meeting (Vancouver) - B.J. Cooke, 1986.

CAPSULE GEOLOGY

The Congress (Paul) occurrence is on the north side of Gunn Creek, two kilometres northwest of its mouth.

The Paul zone consists of a number of west trending quartz veins following shears in greenstones of the Mississippian to Jurassic Bridge River Complex (Group). Tertiary feldspar porphyry dykes trend north across the sheared strata. Potassium/argon analysis of the

CAPSULE GEOLOGY

dykes suggests an age date of 67.1 Ma +/- 2.2 Ma (Fieldwork 1985).

The Slide zone, just northwest of the Paul zone, follows a sheared contact between basalt and argillite of the Bridge River Complex west of a porphyry dyke. The shear is believed to splay out as it enters the incompetent sediments to the north.

The quartz veins contain disseminated to banded pyrite, arsenopyrite, tetrahedrite and stibnite, surrounded by quartz-ankerite alteration.

The Paul zone contains inferred reserves (possible underground reserves) of 83,444 tonnes grading 9.6 grams per tonne gold (George Cross News Letter #26, 1986). Drill hole intersections from the Slide zone grade up to 11.3 grams per tonne gold across 2 metres (Mineral Exploration Group Meeting (Vancouver) - B.J. Cooke, 1986).

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GSC OF 482
GSC P 43-15
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CJES Vol.24 (1987), pp. 2279-2291
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GCNL #68, 1981; #26, 1986
NW PROSP Jan/Feb 1989

DATE CODED: 1986/12/05
DATE REVISED: 1991/03/01

CODED BY: BNC
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE134**

NATIONAL MINERAL INVENTORY:

NAME(S): **NORMA**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 25 N
LONGITUDE: 122 47 35 W
ELEVATION: 1097 Metres

NORTHING: 5633937
EASTING: 514566

LOCATION ACCURACY: Within 500M

COMMENTS: Location of adit near centre of claim, 3.5 kilometres east of Gold-bridge, 600 metres east of MacDonald Lake on north bank of Lindsay Creek.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Quartz Calcite Hematite
ALTERATION TYPE: Carbonate Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
COMMENTS: Veins parallel schistosity in host. Schistosity strikes north and dips steeply west.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Andesite
Basalt
Greenstone
Chert
Argillite
Quartz Vein

HOSTROCK COMMENTS: Altered volcanics, basic andesite-basalt, locally amygdaloidal, some pillow structures.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Quartz-calcite-pyrite veins, 1 to 10 centimetres in width, parallel schistosity in altered and sheared andesite-basalt volcanics of the Mississippian to Jurassic Bridge River Complex (Group). Quartz-carbonate alteration is extensive and cherts and argillites, also included in the Bridge River Group, exposed in the southwest corner of the claim, are sheared and silicified and contain abundant hematite staining.

Geochemical anomalies with coincident high lead, zinc, gold and silver values are reported. An old pre 1937 adit is located near the centre of the Norma claim in the area of intense alteration. It is reported to have been driven along a strike fault or a vein paralleling the formational strike of north-south.

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EMPR MAP 430A, 431A
EMPR MEM 130; 213
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 430A
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24 pp. 2279-2291

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 741
REPORT: RGEN0100

BIBLIOGRAPHY

GCNL #97, 1985

DATE CODED: 1986/11/22
DATE REVISED: 1991/03/22

CODED BY: MM
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE135**

NATIONAL MINERAL INVENTORY:

NAME(S): **B R JEWEL**, BRJ 1, HOBO

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 25 N
LONGITUDE: 122 50 50 W
ELEVATION: 1235 Metres

NORTHING: 5624661
EASTING: 510772

LOCATION ACCURACY: Within 500M
COMMENTS: Location of BRJ No. 1 vein.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Tetrahedrite Arsenopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Irregular

COMMENTS: Quartz ribboned vein strikes east-northeast; splits where cut by north trending fault at southwest end. Vein has a width of 1 metre and a strike length of 153 metres.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Pioneer	
Upper Permian			Bralorne Igneous Complex

ISOTOPIC AGE: 287 +/- 20 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Hornblende

LITHOLOGY: Greenstone
Diorite

HOSTROCK COMMENTS: Date by R.L. Armstrong, University of British Columbia, 1981.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1981

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Silver

60.3400

Grams per tonne

Gold

21.9000

Grams per tonne

COMMENTS: Drill hole over 0.8 metre in the BRJ #1 vein.

REFERENCE: Assessment Report 10529.

CAPSULE GEOLOGY

The BR Jewel veins are hosted in Upper Triassic Pioneer Formation (Cadwallader Group) greenstone with nearby or "associated" diorite of the Permian Bralorne Igneous Complex.

The main showing (BRJ #1) is a well defined ribboned quartz vein having gouge and crushed wallrock on either side. The northeast trending vein averages 1 metre in width and is truncated after 153 metres at its southwest end by a north trending fault.

Mineralization consists of local sparse pyrite, tetrahedrite and arsenopyrite. One drill interval assayed 21.9 grams per tonne gold and 60.34 grams per tonne silver over 0.8 metre, and 19.4 grams per tonne gold over 8 metres (Assessment Report 10529). The best assays are reported to occur where the vein is "split" by the fault. Two other veins, one (BRJ #2) 61 metres south of BRJ #1, and another (BRJ #3) 550 metres south-southwest of BRJ #1, are reported barren.

BIBLIOGRAPHY

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RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 743
REPORT: RGEN0100

BIBLIOGRAPHY

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GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17
CJES 1987, Vol. 24, pp. 2279-2291

DATE CODED: 1986/11/19
DATE REVISED: 1991/05/22

CODED BY: MM
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE136**

NATIONAL MINERAL INVENTORY: 092J15 Au21

NAME(S): **SENATOR (L.7651)**, SENATOR ROAD, IMPERIAL,
BONA ROAD

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 52 42 N
LONGITUDE: 122 47 21 W
ELEVATION: 840 Metres

NORTHING: 5636316
EASTING: 514833

LOCATION ACCURACY: Within 500M
COMMENTS: Senator portal (Assessment Report 14019).

COMMODITIES: Gold Silver Antimony

MINERALS

SIGNIFICANT: Stibnite
ASSOCIATED: Quartz Calcite
ALTERATION: Limonite Dolomite Quartz
ALTERATION TYPE: Carbonate Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.
TYPE: I09 Stibnite veins and disseminations
COMMENTS: Width of main "Senator" vein 1.4 metres; several other narrower veins occur. Veins strike east-northeast.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Bridge River Undefined Formation

LITHOLOGY: Tuff
Greenstone
Chert
Quartz Vein
Andesite

HOSTROCK COMMENTS: Grey siliceous tuff, andesitic tuffaceous greenstone.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: IMPERIAL

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1986

COMMODITY	GRADE	
Silver	8.9100	Grams per tonne
Gold	16.0100	Grams per tonne
Antimony	7.5600	Per cent

COMMENTS: Imperial vein, 5.5 metres wide. Assays are averages.
REFERENCE: Assessment Report 14019.

ORE ZONE: BONA ROAD

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1986

COMMODITY	GRADE	
Gold	72.3400	Grams per tonne

COMMENTS: Across 6 metres.
REFERENCE: Assessment Report 14019.

INVENTORY

ORE ZONE: SENATOR REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 8.5700 Grams per tonne
Gold 5.3500 Grams per tonne
Antimony 7.8000 Per cent
COMMENTS: Across 1.4 metre vein, average assays.
REFERENCE: Assessment Report 14019.

ORE ZONE: SENATOR ROAD REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab
COMMODITY GRADE
Gold 16.4900 Grams per tonne
COMMENTS: Width not specified; from 57 metres of gossan altered rock.
REFERENCE: George Cross News Letter No.139, 1986.

CAPSULE GEOLOGY

The Senator vein occurs within a northeast trending shear zone within gray siliceous tuff which, along with andesitic-tuffaceous greenstone and ribbon cherts, underlies most of the property. This strata belongs to the Mississippian to Jurassic Bridge River Complex (Group). The 1.4-metre wide quartz-calcite vein contains antimony up to 7.80 per cent, gold up to 5.35 grams per tonne and silver up to 8.57 grams per tonne (Assessment Report 14019). The surrounding wallrock contains pyrite.

The "Senator Road zone", about 100 metres southwest of the Senator main workings, has dolomitic, limonitic and siliceous alterations in well fractured greenstone. Quartz-stibnite-limonite veins trending both northeast and southwest assayed up to 16.49 grams per tonne gold across a metre width (George Cross News Letter No.139, 1986).

The "Imperial zone", 200 metres south of the Senator workings, is hosted by andesitic tuffaceous greenstone, 40 metres away from the contact with thinly bedded cherty sediments. In the northern part, alteration is dolomitic with limonite occurring in major fractures. A grab sample from a northeast trending quartz-stibnite vein assayed 16.01 grams per tonne gold, 8.91 grams per tonne silver and 7.56 per cent antimony (Assessment Report 14019). To the south, an adjacent 40-metre wide zone of silicification and bleaching occurs, with abundant limonite in northeast trending fractures. Quartz veins, up to 12.5 centimetres wide, contain stibnite in massive pods over 1 metre.

About 30 metres northeast of the Senator workings is a 30-metre wide silicified shear zone called the "Bona Road zone", with abundant limonite and moderate calcite veining. A grab sample yielded 72.34 grams per tonne gold, 0.96 per cent arsenic and 0.005 per cent antimony (Assessment Report 14019).

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EMPR GEM 1971-312
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EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Report by V. Dolmage, 1945)
GSC MAP 430A
GSC MEM 130, pp. 73-74; 213
GSC OF 482
GSC P 43-15; 73-17
GSC SUM RPT 1915, p. 84
CJES 1987, Vol. 24, pp. 2279-2291
GCNL #97, 1985

DATE CODED: 1986/12/04
DATE REVISED: 1991/05/22

CODED BY: MM
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE137**

NATIONAL MINERAL INVENTORY:

NAME(S): **CRAZY CREEK**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 30 N
LONGITUDE: 122 43 56 W
ELEVATION: 2100 Metres

NORTHING: 5619279
EASTING: 518901

LOCATION ACCURACY: Within 5 KM

COMMENTS: On ridge between headwaters of Crazy Creek and Plutus Creek (south of Cadwallader Creek).

COMMODITIES: Talc

MINERALS

SIGNIFICANT: Talc

ASSOCIATED: Magnesite

ALTERATION: Serpentine Talc Chlorite Magnesite Calcite

Dolomite

ALTERATION TYPE: Serpentin'zn Talc

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Hydrothermal Industrial Min.

TYPE: M07 Ultramafic-hosted talc-magnesite

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

Paleozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

President Ultramafics

LITHOLOGY: Serpentinized Peridotite
Carbonaceous Talc Schist
Serpentinite
Sediment/Sedimentary
Volcanic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

The Crazy Creek showing is within what has been termed the Pioneer Ultramafite (Wright, 1974), an alpine-type peridotite body which is enclosed in lower greenschist facies, sediments, and volcanics of the Mississippian to Jurassic Bridge River Complex (Group). The ultramafite is linked to the President Ultramafics, which in turn are probably correlative with the Permian and older Shulaps Ultramafic Complex. Talc-carbonate alteration occurs along fault zones within the ultramafite which is highly serpentinized.

A talc-magnesite-chlorite zone, ranging from a few metres to a few tens of metres wide, is developed near a fault and grades into serpentine north of "Peak 1". The rock is strongly sheared and foliated, and consists of chlorite patches (replacing orthopyroxene) veined by calcite and dolomite in an extremely fine-grained matrix (0.01 millimetre) of talc-chlorite.

A talc-carbonate schist of variable width is developed between serpentine and the contact with country rock. The talc zone is marked by either an abrupt shear zone or a gradational contact. There is a gradual increase of talc and talc/carbonate schist which contains 45 per cent magnesite in a matrix of fine-grained talc and minor chlorite.

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EMPR MAP 1987-11
EMPR OF 1987-11; 1988-3; 1988-19; 1989-4; 1990-10
GSC MEM 213
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 747
REPORT: RGEN0100

BIBLIOGRAPHY

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Bralorne, B.C., unpublished M.Sc. Thesis, University of British
Columbia B.C., p. 179)

DATE CODED: 1988/01/21
DATE REVISED: 1991/09/12

CODED BY: MM
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE138**

NATIONAL MINERAL INVENTORY:

NAME(S): **LJ**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 34 N
LONGITUDE: 122 44 24 W

NORTHING: 5634227
EASTING: 518299

ELEVATION: 2134 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of LJ claim group (Assessment Report 16637).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Stibnite Arsenopyrite
ASSOCIATED: Quartz
ALTERATION: Calcite Silica Mariposite Ankerite
ALTERATION TYPE: Carbonate Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY:

Chert
Argillite
Greenstone
Listwanite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1987

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

16.5000

Grams per tonne

Gold

8.0400

Grams per tonne

COMMENTS: Chip sample across stibnite-bearing vein.

REFERENCE: Assessment Report 16637.

CAPSULE GEOLOGY

The LJ showing occurs in an area underlain by sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex (Group). On the property, the Bridge River Complex is represented by argillite, greenstone and chert which is locally pyritic.

Mineralization occurs in two shear zones within pyritized chert and consists of stibnite, arsenopyrite and pyrite, generally as veins and fracture fillings. Wallrock alteration to the veins consists of carbonate (commonly ankeritic), mariposite and quartz (listwanite), usually as veinlets.

Sulphide mineralization is enriched in gold and silver. A chip sample taken in 1987 across one of the veins assayed 8.04 grams per tonne gold and 16.5 grams per tonne silver (Assessment Report 16637).

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 8548G
GSC MEM 213
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 749
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 73-17

DATE CODED: 1988/03/13
DATE REVISED: 1991/05/23

CODED BY: GSA
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE139**

NATIONAL MINERAL INVENTORY:

NAME(S): **BILL MINER**, BILL MINER'S GOLD, LAD'S GOLD

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 16 N
LONGITUDE: 122 42 28 W
ELEVATION: 1158 Metres

NORTHING: 5637386
EASTING: 520555

LOCATION ACCURACY: Within 500M

COMMENTS: Position of two short adits (Assessment Report 18066).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Stibnite
COMMENTS: Arsenopyrite indicated by highly anomalous arsenic in soils over the zones of mineralization.

ALTERATION: Ankerite
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I09 Stibnite veins and disseminations

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Jurassic-Cretaceous
Upper Triassic
Cretaceous-Tertiary
Mesozoic-Cenozoic

GROUP

Relay Mountain
Cadwallader

FORMATION

Undefined Formation
Hurley

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton
Coast Plutonic Complex

LITHOLOGY: Tuffaceous Sandstone
Chert Pebble Conglomerate
Shale
Siltstone
Quartz Diorite
Undifferentiated Volcanic Rock
Chert
Argillite

HOSTROCK COMMENTS: Minor dykes in area are probably related to the Bendor pluton.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1988

COMMODITY

Silver
Gold

GRADE

2.1000 Grams per tonne
9.4500 Grams per tonne

COMMENTS: Sample BMR 88-008 from Adit #2.
REFERENCE: Assessment Report 18066.

CAPSULE GEOLOGY

The Bill Miner showing is located on the south side of Carpenter Lake between Girl and Truax creeks in the Bendor Range.

The property is underlain by ribbon chert, argillite and metavolcanic rocks of the Upper Triassic Hurley Formation of the Cadwallader Group which have been thrust over Upper Jurassic siltstone, sandstone and chert pebble conglomerate of the Jurassic to Cretaceous Relay Mountain Group. Minor quartz diorite dykes, probably related to the Cretaceous to Tertiary Bendor pluton, intrude these rocks.

Two adits, 140 metres apart, have been excavated on the property. Adit #1, about 30 metres long, was driven on a stibnite-bearing vein hosted by tuffaceous sandstone. Samples taken from the dump assayed up to 0.86 grams per tonne gold (Assessment Report

CAPSULE GEOLOGY

16282). Adit #2, 8 to 10 metres long, was driven on a zone of brecciation and ankerite alteration within the tuffaceous sandstone. A sample taken from the adit assayed 9.45 grams per tonne gold and 2.1 grams per tonne silver (Assessment Report 18066).

Although poorly described, sulphides in these zones probably include arsenopyrite, indicated by the highly anomalous arsenic in soil samples taken over the area.

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EMPR ASS RPT *16282, *18066
EMPR EXPL 1987-C210; 1988-C121
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 1882
GSC MEM 130
GSC OF 482
GSC SUM RPT 1932

DATE CODED: 1987/12/24
DATE REVISED: 1991/03/13

CODED BY: GJP
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE140**

NATIONAL MINERAL INVENTORY:

NAME(S): **LIZA LAKE C**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 58 11 N
LONGITUDE: 122 40 00 W
ELEVATION: 1387 Metres

NORTHING: 5646511
EASTING: 523405

LOCATION ACCURACY: Within 500M

COMMENTS: Well-exposed rusty bluff on northwest side of Liza Creek valley.

COMMODITIES: Magnesite

MINERALS

SIGNIFICANT: Magnesite
ASSOCIATED: Calcite Chalcedony
ALTERATION: Mariposite Limonite Talc
ALTERATION TYPE: Carbonate Quartz-Carb. Silicific'n Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform Stratabound Massive
CLASSIFICATION: Replacement Hydrothermal Industrial Min.
TYPE: M07 Ultramafic-hosted talc-magnesite
SHAPE: Irregular
DIMENSION: 25 x 15 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Ultramafic
Listwanite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Liza Lake C magnesite showing on the northwest side of the Liza Creek valley is within carbonate and silica-rich altered ultramafic rocks (or listwanite) of the Permian and older Shulaps Ultramafic Complex. Most ultramafic rocks comprise a slice adjacent to Upper Triassic Pioneer Formation (Cadwallader Group) greenstones and Upper Triassic Hurley Formation (Cadwallader Group) clastic sedimentary rocks. The ultramafic rocks are tectonic slices intercalated with Cadwallader Group rocks and parallels the regional northwest trend in the area.

The magnesite concentration is irregularly shaped, approximately 25 by 15 metres on surface. The magnesite is hard, compact to crystalline and generally very fine-grained, with chalcedonic quartz veins throughout; the chalcedony is more resistant to weathering and stands out as ribs. The rocks are limonite-stained on surface. Adjacent listwanite is mostly a mixture of serpentinite with calcite, talc, and mariposite with minor disseminated opaque minerals (probably magnetite plus or minus chromite?).

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EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP *1610
GSC MEM *130, pp. 75-77; 213, p. 72
GSC SUM RPT *1915, pp. 83,84; 1916, pp. 48-52

DATE CODED: 1988/04/18
DATE REVISED: 1991/03/01

CODED BY: RGG
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: Y

MINFILE NUMBER: **092JNE141**

NATIONAL MINERAL INVENTORY:

NAME(S): **PERIDOTITE CREEK**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 59 21 N
LONGITUDE: 122 31 46 W
ELEVATION: 2774 Metres

NORTHING: 5648726
EASTING: 533026

LOCATION ACCURACY: Within 500M

COMMENTS: Along southeast side of a razor back ridge northwest of Peridotite Creek. This showing was discovered in 1988 by field crew of the B.C. Geological Survey Branch.

COMMODITIES: Chromium

MINERALS

SIGNIFICANT: Chromite
ASSOCIATED: Enstatite Olivine
ALTERATION: Serpentine Limonite
ALTERATION TYPE: Serpentin'zn Oxidation
MINERALIZATION AGE: Lower Jurassic

DEPOSIT

CHARACTER: Stratabound Disseminated
CLASSIFICATION: Magmatic Industrial Min.
TYPE: M03 Podiform chromite
SHAPE: Irregular
MODIFIER: Other
DIMENSION: 10 x 6 Metres STRIKE/DIP:
COMMENTS: Dimensions are minimum due to inaccessability (very steep). TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Peridotite
Harzburgite
Dunite
Orthopyroxenite
Olivine Orthopyroxenite

HOSTROCK COMMENTS: The Shulaps Ultramafic Complex is Permian and older.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River

CAPSULE GEOLOGY

The Peridotite Creek chromite prospect is on the southeast side of a very steep razor back ridge (elevation 2790 metres) northwest of the headwaters of Peridotite Creek, and is within ultramafic rocks of the Shulaps Ultramafic Complex. Host rocks are mostly dunite to dunitic peridotite, with orthopyroxenite, olivine orthopyroxenite and harzburgite. All rocks have been slightly serpentinized and are limonitic (orange-rust coloured) on surface. Knobby warty-surfaced outcrop is due to the differential weathering of olivine and enstatite, the latter being more resistant. The age of the Shulaps complex is uncertain but is now thought to be Permian and older. An amphibolite knocker within the complex gave an age date of Early Permian; this has been interpreted as the age of cooling following metamorphism, hence the Permian and older age date for the entire Shulaps Ultramafic Complex (Fieldwork 1990, pages 80-81).

Chromite occurs as disseminated grains and grain clots within (predominantly) dunitic layers in layered harzburgite-dunite. Chromite grains commonly form trains that are stratabound within dunitic rocks and are continuous for a metre or so along layering. The area that contains disseminated chromite is at least 10 metres by 6 metres wide. The exposure is on a very steep ridge side and it is hard to assess the abundance and distribution of the chromite.

BIBLIOGRAPHY

EMPR ASS RPT 19599
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 754
REPORT: RGEN0100

BIBLIOGRAPHY

pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1988/04/25
DATE REVISED: 1991/03/01

CODED BY: RGG
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: Y

MINFILE NUMBER: **092JNE142**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUNSHINE MOUNTAIN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 31 N
LONGITUDE: 122 46 33 W
ELEVATION: 2190 Metres

NORTHING: 5619299
EASTING: 515822

LOCATION ACCURACY: Within 500M

COMMENTS: On west spur of Sunshine Mountain between Noel Creek and Crazy Creek.

COMMODITIES: Chromium

MINERALS

SIGNIFICANT: Chromite
COMMENTS: Mega-cumulate textured.
ASSOCIATED: Enstatite
COMMENTS: Enstatite commonly occupied by bastite (enstatite is serpentinized).
ALTERATION: Serpentine Talc Chlorite Limonite
ALTERATION TYPE: Serpentin'zn Oxidation
MINERALIZATION AGE: Lower Jurassic

DEPOSIT

CHARACTER: Layered Stratiform Concordant Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: M03 Podiform chromite
SHAPE: Tabular
MODIFIER: Faulted

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			President Ultramafics

LITHOLOGY: Pyroxene Porphyritic Peridotite
Harzburgite
Dunite
Chromitite
Orthopyroxenite
Olivine Orthopyroxenite

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River Cadwallader
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Sunshine Mountain chromite prospect is on the west spur of Sunshine Mountain between Noel and Crazy creeks and is within the "Pioneer Ultramafite" of Wright (1974) (part of the President Ultramafics which are correlative with the Permian and older Shulaps Ultramafic Complex). These units consist of well layered harzburgite, dunite, orthopyroxenite, olivine orthopyroxenite and serpentinite; all ultramafic rocks are serpentinized to some degree, contain chlorite and are limonitic on weathered surface (a characteristic rusty appearance due to limonite). They are knobby surfaced due to orthopyroxene being more resistant to weathering. Adjacent to the ultramafic body, on the west, is chert of the Mississippian to Jurassic Bridge River Complex (Group) and, on the east, clastic sedimentary rocks of the Upper Triassic Hurley Formation (Cadwallader Group).

The chromitite concentrations are stratiform layered to lens-shaped bodies composed of up to 85 per cent chromite with interstitial orthopyroxene (enstatite) and serpentine minerals. Individual chromite grains are 1 to 15 millimetres in size, rather equant in shape and form a slight mega-cumulate texture. Chromite concentrations range from a few centimetres in thickness, continuous along layering for several centimetres, up to approximately 10 centimetres in thickness and continuous along strike for approximately 200 centimetres. Chromatite layers bifurcate in places (rare). Nearby, layered harzburgite has disturbed layering - possibly due to turbulence within the still molten ultramafic magma chamber.

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RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 756
REPORT: RGEN0100

BIBLIOGRAPHY

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pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
*Wright, R.L. (1974): Geology of the Pioneer Ultramafite, University
of British Columbia M.Sc. Thesis

DATE CODED: 1988/04/25
DATE REVISED: 1991/05/23

CODED BY: RGG
REVISED BY: DGB

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE143**

NATIONAL MINERAL INVENTORY:

NAME(S): **PIEBITER CREEK**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 21 N
LONGITUDE: 122 38 59 W
ELEVATION: 1615 Metres

NORTHING: 5619025
EASTING: 524725

LOCATION ACCURACY: Within 500M

COMMENTS: Location centred on outcrop of limestone lens just north of Piebiter Creek (Geological Survey of Canada Map 431).

COMMODITIES: Limestone Tungsten Copper

MINERALS

SIGNIFICANT: Calcite
ASSOCIATED: Scheelite Chalcopyrite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Permian-Triassic

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min. Skarn
TYPE: R09 Limestone
DIMENSION: 274 x 56 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Limestone lense strikes northeast, dips steeply northwest.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
DATING METHOD:	Fossil		
MATERIAL DATED:	Conodont		

LITHOLOGY: Limestone
Basalt
Andesite
Tuff
Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Contact RELATIONSHIP: Post-mineralization GRADE:

INVENTORY

ORE ZONE: SKARN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1948
SAMPLE TYPE: Chip
COMMODITY GRADE
Limestone 55.0000 Per cent
COMMENTS: Taken across a 22.3-metre section. Grade given for calcium oxide.
REFERENCE: Minister of Mines Annual Report 1948, page 102, Sample 935K.

CAPSULE GEOLOGY

A 56-metre wide lens of grey to white, fine to coarse-grained limestone strikes northwest for 274 metres along a hillside 300 metres north of Piebiter Creek, 46 kilometres north-northeast of Pemberton. The lens dips steeply northwest. The limestone is hosted in basalt, andesite, tuff and breccia of the Mississippian to Jurassic Bridge River Complex.

A narrow zone of scheelite-chalcopyrite bearing skarn is developed along the margin of the lens. A chip sample taken across a 22.3 metre section of limestone analyzed 55.00 per cent CaO, 0.25 per cent MgO, 1.10 per cent insolubles and 0.04 per cent R2O3 (Minister of Mines Annual Report 1948, page 102, Sample 935K).

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EMPR ASS RPT 105, 15871
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 758
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A; 13-1973
GSC MEM 130, p. 23; 213, pp. 11-12, 72-73
GSC OF 482
GSC P 73-17, pp. 2-3

DATE CODED: 1989/08/22
DATE REVISED: 1991/05/23

CODED BY: PSF
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE144**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAYOOSH CREEK, MARCHESI GRANITE, GAZDAR GRANITE QUARRY, DUFFY LAKE GRANITE, NORTHWEST GRANITE, ARCTIC WHITE, DUFFY LAKE ROAD**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J09E
BC MAP:
LATITUDE: 50 30 33 N
LONGITUDE: 122 10 40 W
ELEVATION: 1036 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Proposed bench development for a quarry 500 metres west of Cayoosh Creek and the Duffy Lake road, 5 kilometres south of the confluence of Cayoosh and Gott creeks, 22 kilometres east of D'Arcy (Property File - Claim Map).

Open Pit

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

NORTHING: 5595568

EASTING: 558301

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Plagioclase Orthoclase Microcline Quartz Biotite
ASSOCIATED: Sphene Zoisite
ALTERATION: Chlorite Sericite
ALTERATION TYPE: Chloritic Sericitic
MINERALIZATION AGE: Mesozoic-Cenozoic

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Cayoosh Creek quarry is 500 metres west of Cayoosh Creek, 27 kilometres southwest of Lillooet.

The area southwest of Lillooet is underlain by Jurassic to Tertiary Coast Plutonic Complex rocks which intrude the Mississippian to Jurassic Bridge River Complex (Group).

The quarry is located in a fine to medium-grained quartz monzonite plug which intrudes Bridge River Group sedimentary rocks. The quarry area is characterized by horizontal ledges several metres-thick of massive monzonite overlain by a more densely fractured zone. The existing quarry face allows removal of blocks several cubic metres in size. The stone is homogeneous with uniform texture. No dark inclusions can be seen on quarry faces. The quarried blocks are split into masonry and facing shapes and marketed under the trade name Arctic White granite. It has been widely used around Whistler and in the Vancouver area.

The quarry is operated on a seasonal basis by Northwest Granite Company, an affiliate of Marchesi Marblecraft Ltd. of Burnaby. Some 300 to 400 tonnes of granite were produced for building facings in 1990, the first year of operation (L. Marchesi, personal communication, 1991).

Arctic White stone is a bright white, fine to medium-grained quartz monzonite. The texture is very uniform but has a strong planar fabric defined by biotite. Major minerals are white plagioclase, orthoclase, microcline, clear colourless quartz and black biotite. Minor constituents are sphene, (clino?) zoisite and chlorite after biotite.

The rock is quite fresh with only minor alteration of biotite to chlorite and sericitization of plagioclase. The polished surface is good (7-8/10) and pitting is limited to crystal corners where cleavage planes intersect the surface. There is no staining as iron oxides or sulphides are essentially absent.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 760
REPORT: RGEN0100

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EMPR FIELDWORK *1994, pp.365-369
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EMPR OF 1991-20; 1992-1; 1992-9
EMPR PF (*Claim map; description of proposed quarry and development
plan)
GSC OF 482

DATE CODED: 1990/11/28
DATE REVISED: 1997/02/13

CODED BY: GO
REVISED BY: ZDH

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JNE145**

NATIONAL MINERAL INVENTORY:

NAME(S): **UPPER PIEBITER**, CHALCO 13 (L.7705)

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 12 N
LONGITUDE: 122 38 09 W
ELEVATION: 1775 Metres

NORTHING: 5618534
EASTING: 525806

LOCATION ACCURACY: Within 500M

COMMENTS: Located a few hundred metres south of Piebiter Creek, about 1.5 kilometres from its confluence with Cadwallader Creek (Assessment Report (Assessment Report 15871).

COMMODITIES: Gold Copper

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Arsenopyrite Chalcopyrite

COMMENTS: Minor arsenopyrite, trace of chalcopyrite.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated Stratabound
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Tabular

MODIFIER: Faulted

DIMENSION: 600 x 35 Metres STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Cross faulting appears to offset mineralization to southwest.

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Quartzite
Quartz Biotite Schist
Serpentinite

HOSTROCK COMMENTS: Hosted in what were the President Ultrabasics, now part of the Bridge River Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1987

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Gold

2.2300

Grams per tonne

COMMENTS: Drill hole 87-02: 9 metre intersection.

REFERENCE: Assessment Report 16725.

CAPSULE GEOLOGY

The Upper Piebiter prospect is located south of Piebiter Creek along the lower, northwesterly-facing slopes of Royal Peak. In this region extensive splays of the Bralorne fault are spatially related to numerous mineral occurrences of the Bridge River mining camp.

The Upper Piebiter area is underlain by metasedimentary rocks and narrow northwest trending belts of serpentinite of the Mississippian to Jurassic Bridge River Complex (Group).

Gold mineralization is associated with quartz biotite schist and quartzite near ultramafic contacts and in one case with serpentinite collected from below a dyke or sill. Mineralization has been traced over 600 metres along strike and for a widths of 15 to 35 metres and is open at depth and to the west. It appears to be structurally controlled, at least in part, within a broad shear zone. Stratabound pyrrhotite and pyrite with minor arsenopyrite and trace chalcopyrite are disseminated within quartzite in the zone of shearing.

In 1987, drill hole 87-02 intersected 9 metres averaging 2.23 grams per tonne gold, including 5.28 grams per tonne over one metre

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RUN TIME: 09:30:14

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CAPSULE GEOLOGY

(Assessment Report 15871).

BIBLIOGRAPHY

EMPR ASS RPT *15871, 16595, *16725, *19828
EMPR EXPL 1987-C207; 1988-C121
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987,
pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR PF (Geology sketch map)
GSC MAP 431A
GSC MEM 213
GSC OF 482
GSC P 73-17
GSC SUM RPT 1932, Part A, pp. 57-71
GCNL #4,#18, 1990

DATE CODED: 1991/02/27
DATE REVISED: 1991/07/15

CODED BY: CID
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE146**

NATIONAL MINERAL INVENTORY:

NAME(S): **CUB, ROCH**

MINING DIVISION: Lillooet

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092J16W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 25 N
 LONGITUDE: 122 19 41 W
 ELEVATION: 2195 Metres

NORTHING: 5634132
 EASTING: 547295

LOCATION ACCURACY: Within 500M

COMMENTS: Exposure in wall and base of cirque at southwesternmost tributary of La Rochelle Creek.

COMMODITIES: Molybdenum Copper Gold Silver

MINERALS

SIGNIFICANT: Molybdenite Pyrite
 ASSOCIATED: Chalcopyrite
 ALTERATION: Ferrimolybdite Malachite Azurite Quartz Limonite
 ALTERATION TYPE: Silicific'n Potassic Oxidation Leaching
 MINERALIZATION AGE: Tertiary

DEPOSIT

CHARACTER: Vein Discordant Disseminated
 CLASSIFICATION: Hydrothermal Epigenetic Porphyry
 TYPE: L08 Porphyry Mo (Climax-type)
 SHAPE: Irregular
 MODIFIER: Fractured
 DIMENSION: 650 x 120 Metres STRIKE/DIP: TREND/PLUNGE:
 COMMENTS: Minimum dimensions of the mineralized zone.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Eocene			Mission Ridge Pluton
Tertiary			Rexmount Porphyry

LITHOLOGY: Porphyritic Plagioclase Quartz Dacite
 Brecciated Plagioclase Porphyritic Dacite
 Biotite Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Chilcotin Plateau
 TERRANE: Bridge River
 METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1989
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	1.5000 Grams per tonne
Gold	0.0050 Grams per tonne
Copper	0.0050 Per cent
Molybdenum	0.1620 Per cent

COMMENTS: Best assay for sample of stockwork molybdenite mineralization.
 REFERENCE: Sample No. BGA-38-2, Fieldwork 1989, page 284.

CAPSULE GEOLOGY

The Cub porphyry molybdenum prospect is in the southeast part of the Shulaps Range, underlain by schists and phyllite of the Mississippian to Jurassic Bridge River Complex (Group) and intruded by syn- and post-tectonic granitic and felsic porphyritic bodies. These rocks are, in turn, structurally overlain by the Shulaps Ultramafic Complex. Granodiorite of the Eocene Mission Ridge pluton and Tertiary Rexmount quartz-feldspar porphyry occupy the central part of the Shulaps Range. Mineralization of the Cub prospect is exposed in the wall and cirques which forms the southwesternmost drainage tributary to La Rochelle Creek within the Cub 200 claim. The prospect consists of molybdenite and pyrite as disseminations and stockwork within silicic granodiorite, and molybdenite and chalcopyrite within one-metre thick blocks of vein

CAPSULE GEOLOGY

quartz. The majority of the molybdenite occurs as irregular stockworks within potassic and silicic protomylonitic granodiorite. Alterations minerals include ferrimolybdite, malachite, azurite and limonite.

These rocks generally contain less than 0.2 per cent molybdenite. Blocks of vein quartz within the main gully on the hillside contain the greatest concentration of metals - up to 0.5 per cent molybdenite, 1 per cent copper, 2 grams per tonne gold, 50 grams per tonne silver and anomalous bismuth, lead and zinc (Fieldwork 1989, page 284).

The exposures of granodiorite in which molybdenite has been observed occupy an area of at least 650 metres by 120 metres and span an elevation difference of over 250 metres.

BIBLIOGRAPHY

EMPR ASS RPT 11753
EMPR EXPL 1983-325
EMPR FIELDWORK *1989, pp. 279-285, pp.53-72
EMPR OF 1990-10
GSC P 77-2, p.16
GCNL #201, #217, 1989

DATE CODED: 1991/04/04
DATE REVISED: / /

CODED BY: RGG
REVISED BY:

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE147**

NATIONAL MINERAL INVENTORY:

NAME(S): **AURUM**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 32 11 N
LONGITUDE: 122 45 13 W
ELEVATION: 1250 Metres

NORTHING: 5598301
EASTING: 517461

LOCATION ACCURACY: Within 500M

COMMENTS: Trench #2 (1988) in main zone of quartz veining (Assessment Report 17537).

COMMODITIES: Gold Copper Lead Zinc Molybdenum

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite Sphalerite Galena

Molybdenite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Tuffaceous Phyllite
Argillite
Hornblende Quartz Diorite
Pyroxene Diorite
Amygdaloidal Basalt

HOSTROCK COMMENTS: Minor amounts of amygdaloidal basalt may belong to the Pliocene Garibaldi Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader Plutonic Rocks

INVENTORY

ORE ZONE: TRENCH REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1988
SAMPLE TYPE: Grab

COMMODITY	GRADE	
Gold	15.2000	Grams per tonne

COMMENTS: Sample 8731 from quartz vein exposed in Trench 2.
REFERENCE: Assessment Report 17537.

CAPSULE GEOLOGY

The Aurum property is located on the Birkenhead River and the southwestern slopes of an adjacent mountain. The area is underlain by a northwesterly trending roof pendant of Upper Triassic Cadwallader Group metasedimentary and metavolcanic rocks adjacent to a pluton of hornblende quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. A smaller body of pyroxene diorite is exposed within the area of the prospect.

The main showing consists of three lenticular quartz veins cutting phyllitic tuff or very fine grained sedimentary rocks. Mineralization within the veins consists of blebby to disseminated pyrite with pyrrhotite, chalcopyrite, sphalerite, galena and molybdenite. A grab sample of vein material exposed during preliminary hand trenching graded 15.2 grams per tonne gold (Assessment Report 17537).

BIBLIOGRAPHY

EMPR ASS RPT *17537
EMPR EXPL 1988-C121
EMPR PF (Prospectus, Tansy Resources Inc., 1988)

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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BIBLIOGRAPHY

GSC OF 482

DATE CODED: 1991/03/04
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE148**

NATIONAL MINERAL INVENTORY:

NAME(S): **LISA DAWN, HOL**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J16W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 51 49 N
LONGITUDE: 122 20 14 W
ELEVATION: 2012 Metres

NORTHING: 5634867
EASTING: 546643

LOCATION ACCURACY: Within 500M

COMMENTS: On hillside northeast of creek that drains into pond at base of cirque; approximately 7 kilometres southeast of Rex Peak, Shulaps Rang

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
ASSOCIATED: Quartz
ALTERATION: Ferrimolybdite Chlorite Limonite Quartz
ALTERATION TYPE: Chloritic Oxidation
MINERALIZATION AGE: Tertiary

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Igneous-contact
SHAPE: Tabular
MODIFIER: Sheared Other
DIMENSION: 50 x 2 Metres STRIKE/DIP: 310/50E TREND/PLUNGE:
COMMENTS: Minimum dimensions.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Tertiary			Rexmount Porphyry
Eocene			Mission Ridge Pluton

LITHOLOGY: Chloritic Granodiorite
Plagioclase Porphyritic Dacite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Chilcotin Plateau
RELATIONSHIP: Pre-mineralization
GRADE: Greenschist

CAPSULE GEOLOGY

The Lisa Dawn molybdenum prospect is exposed on the hillside southeast of a small pond at the headwaters of the southeastern-most tributary to Holbrook Creek in the southern Shulaps Range. The prospect is approximately 100 metres uphill from a narrow road along the southeast shore of the small pond. The Lisa Dawn prospect consists of a molybdenite-bearing quartz vein at the contact between plagioclase-porphyritic dacite (Tertiary Rexmount Porphyry) and quartz-flooded and chloritic altered granodiorite (Eocene Mission Ridge pluton).

The attitude of the vein is approximately 310 degrees with a 50 degrees east dip. It is approximately 1.5 to 2.0 metres thick and is exposed on the hillside for approximately 20 metres. The vein is mostly massive milky white quartz, slightly rusty and contains minor chloritic partings. A 10-centimetre thickness of vein material adjacent to granodiorite contains stylolitic veinlets and pods of molybdenite up to 2 millimetres by 5 centimetres in size; a yellow earthy alteration (probably ferrimolybdite after molybdenite) is locally abundant in vuggy quartz and along fractures. The vein also contains anomalous copper and gold values. Silicic granodiorite adjacent to the vein contains disseminated flakes of molybdenite; the extent of this mineralization is not known.

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EMPR ASS RPT 11758, 16202
EMPR EXPL 1983-325; 1987-C216
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 77-2, p. 16

DATE CODED: 1990/04/03
DATE REVISED: 1992/01/14

CODED BY: RGG
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE149**

NATIONAL MINERAL INVENTORY:

NAME(S): **MUDMAIN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 58 15 N
LONGITUDE: 122 42 59 W
ELEVATION: 1265 Metres

NORTHING: 5646620
EASTING: 519913

LOCATION ACCURACY: Within 500M

COMMENTS: Exposure in road cut immediately east of Noaxe and Mudmain Forest Service roads.

COMMODITIES: Magnesite Antimony

MINERALS

SIGNIFICANT: Magnesite Dolomite
ASSOCIATED: Quartz
ALTERATION: Magnesite Quartz Fuchsite
ALTERATION TYPE: Quartz-Carb. Serpentin'zn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: M07 Ultramafic-hosted talc-magnesite
SHAPE: Irregular
DIMENSION: 50 x 30 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: Showing occurs within part of the Marshall Creek fault.

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			Shulaps Ultramafic Complex

LITHOLOGY: Listwanite
Serpentinite

HOSTROCK COMMENTS: Slices of serpentinite along the Marshall Creek fault are altered to listwanite; only relict serpentinite remains.

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1988
SAMPLE TYPE: Grab
COMMODITY GRADE
Antimony 1.0500 Per cent
COMMENTS: Grab sample of listwanite with quartz stockwork.
REFERENCE: Sample Number 8S002 (Open File 89-4, Sheet 2).

CAPSULE GEOLOGY

The Mudmain magnesite showing is approximately seven kilometres northeast of Tyaughton Lake and is exposed at the junction of the Noaxe and Mudmain Forest Service roads. The exposure is at least 50 by 30 metres of quartz-carbonate-fuchsite altered serpentinite (listwanite) within a strand of the Cretaceous to early Tertiary Marshall Creek fault system. The serpentinite is probably related to the Permian and older Shulaps Ultramafic Complex to the east. Magnesite which occurs as crystalline masses in the outcrop contains anomalous mercury and antimony. A grab sample of listwanite with quartz stockwork assayed 0.009 gram per tonne gold and 1.05 per cent antimony (Open File 89-4, Sheet 2, Sample 8S002).

BIBLIOGRAPHY

EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; *1989-4; 1990-10
GSC OF 482

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RUN TIME: 09:30:14

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PAGE: 770
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 73-17

DATE CODED: 1990/02/19
DATE REVISED: 1992/01/14

CODED BY: RGG
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE150**

NATIONAL MINERAL INVENTORY:

NAME(S): **TWO BOB**, WAYSIDE, HELIUM (L.3039)

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 52 50 N
LONGITUDE: 122 49 27 W
ELEVATION: 805 Metres

NORTHING: 5636557
EASTING: 512370

LOCATION ACCURACY: Within 500M

COMMENTS: Location of drill hole 87-7. See Wayside (092JNE030).

COMMODITIES: Gold Arsenic

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite

ASSOCIATED: Quartz

ALTERATION: Carbonate Quartz Mariposite

COMMENTS: Mineralization occurs along margins of north trending dyke.

ALTERATION TYPE: Carbonate Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform Breccia Shear

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

SHAPE: Tabular

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Cenozoic

GROUP

Cadwallader

FORMATION

Hurley

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Shale
Quartz Feldspar Porphyry Dike

HOSTROCK COMMENTS: Porphyry dykes are younger than Coast Plutonic Complex intrusives.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Two Bob showing is located approximately 700 metres northeast of the former Wayside mine (092JNE030), on the north-westerly shores of Carpenter Lake. The occurrence is underlain by shales of the Upper Triassic Hurley Formation (Cadwallader Group) which have been intruded by a northerly trending, quartz-feldspar porphyry dyke, up to 5 or 6 metres wide.

Mineralization occurs within and peripheral to the dyke margins, which have been sheared, silicified and carbonatized. Silica occurs as pods and lenses, locally cementing brecciated fragments of the carbonatized dyke. Pyrite, arsenopyrite and mariposite are present locally; mariposite can form a significant percentage of the rock. Diamond-drilling in 1987 intersected up to 2.61 grams gold per tonne over 0.68 metre (Assessment Report 17091).

The property is held by International Wayside Gold Mines Ltd.

BIBLIOGRAPHY

EMPR ASS RPT 14164, 16718, *17091, *18240, 23334
EMPR EXPL 1985-C226; 1988-C124
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR P *1995-3, pp. 98-101
EMPR PF (International Wayside Gold Mine Ltd. Website (Mar. 1999):
The Wayside Property, 2 p.)
GSC MAP 1882; 431A; 430A
GSC MEM 130; 213
GSC P 73-17
GSC SUM 1932, Part A, pp. 57-71

DATE CODED: 1991/03/15
DATE REVISED: 1991/09/17

CODED BY: CID
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE150**

MINFILE NUMBER: **092JNE151**

NATIONAL MINERAL INVENTORY:

NAME(S): **CANADA DAY**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 27 N
LONGITUDE: 122 45 48 W
ELEVATION: 914 Metres

NORTHING: 5637712
EASTING: 516646

LOCATION ACCURACY: Within 500M
COMMENTS: Veins exposed in roadcut.

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Arsenopyrite Stibnite
ASSOCIATED: Quartz
ALTERATION: Calcite Carbonate
ALTERATION TYPE: Silicific'n Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular
MODIFIER: Sheared
DIMENSION: STRIKE/DIP: 160/90 TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Amygdaloidal Pillow Andesitic Greenstone
Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane
TERRANE: Bridge River
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE: Zeolite

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1989
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 0.7000 Grams per tonne
Gold 1.7300 Grams per tonne
COMMENTS: Representative sample of vein.
REFERENCE: Sample No. 89BGA-13-3-4A, Taseko-Bridge River mapping program.

CAPSULE GEOLOGY

The Canada Dry showing is exposed along the roadside in a roadcut, on the south side of Carpenter Lake, approximately 6.5 kilometres east of Gold Bridge. The vein occupies a shear within amygdaloidal, pillowed greenstone of the Mississippian to Jurassic Bridge River Complex (Group).

The vein strikes 160 degrees with a vertical dip, is approximately 3 to 5 centimetres thick and is exposed up the hillside for approximately 15 metres. The vein consists of white quartz and carbonate, with lesser pyrite, chalcopyrite and sphalerite, and accessory arsenopyrite and stibnite. Adjacent to this vein are similar veins mineralized with pyrite, only some of which are along the margin of an altered, silicic, porphyry dyke of probable Tertiary age; akin to dykes related to veins north of Carpenter Lake (Congress - 092JNE029).

A representative sample taken from a vein in 1989 assayed 1.73 grams per tonne gold, 0.7 gram per tonne silver and 0.36 per cent arsenic (Taseko-Bridge River Mapping Program, Sample 89BGA-13-3-4A).

BIBLIOGRAPHY

EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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BIBLIOGRAPHY

EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 430A
GSC MEM 130
GSC OF 482
GSC P 43-15; 73-17

DATE CODED: 1991/02/16
DATE REVISED: / /

CODED BY: RGG
REVISED BY:

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE152**

NATIONAL MINERAL INVENTORY:

NAME(S): **ENIGMA**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 42 N
LONGITUDE: 122 44 12 W
ELEVATION: 945 Metres

NORTHING: 5638182
EASTING: 518520

LOCATION ACCURACY: Within 500M

COMMENTS: Vein exposed in trench on shore of Carpenter Lake approximately 8.5 kilometres east of Gold Bridge.

COMMODITIES: Gold Antimony

MINERALS

SIGNIFICANT: Stibnite Pyrite Arsenopyrite

ASSOCIATED: Calcite

ALTERATION: Calcite Kermesite

COMMENTS: The vein is lenticular.

ALTERATION TYPE: Silicific'n Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal
TYPE: I09 Stibnite veins and disseminations
SHAPE: Tabular
MODIFIER: Other
DIMENSION:

STRIKE/DIP: 258/60W

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Unnamed/Unknown Formation	

LITHOLOGY: Brecciated Chert

GEOLOGICAL SETTING

TECTONIC BELT: Intermontane

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

RELATIONSHIP: Pre-mineralization

GRADE: Greenschist

CAPSULE GEOLOGY

The Enigma stibnite vein is exposed in a trench on the south shore of Carpenter Lake, about 8.5 kilometres east of Gold Bridge. The vein is within brecciated ribbon chert of the Permian to Middle Jurassic Bridge River Complex. The vein is composed of quartz and orange-brown calcite, with up to 70 percent of the vein occupied by bladed to massive stibnite, with small amounts of interstitial arsenopyrite. Minor fine-grained pyrite is present along vein margins. Both quartz and calcite are vuggy. Vein margins are sharp but not foliated. Red staining on vein material is probably kermesite (after stibnite). The Enigma vein is similar to veins of the Congress deposit (092JNE029).

BIBLIOGRAPHY

EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC MAP 431A; 1887
GSC MEM 130; 213
GSC OF 482
GSC P 73-17
GSC SUM RPT 1932, part A, pp. 57-71

DATE CODED: 1989/07/04
DATE REVISED: 1992/01/10

CODED BY: RGG
REVISED BY: RGG

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE153**

NATIONAL MINERAL INVENTORY:

NAME(S): **FOX, OWL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 41 43 N
LONGITUDE: 122 33 58 W
ELEVATION: 1980 Metres

NORTHING: 5616029
EASTING: 530645

LOCATION ACCURACY: Within 500M

COMMENTS: Location of 1985 sample #7066 (Assessment Report 15292).

COMMODITIES: Silver Copper Lead Molybdenum

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Tetrahedrite Chalcopyrite Molybdenite

Galena

ASSOCIATED: Quartz

ALTERATION: Limonite Talc

Malachite

ALTERATION TYPE: Oxidation

Talc

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Hydrothermal

Epigenetic

Epithermal

TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

Cretaceous-Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Bendor Pluton

LITHOLOGY:

Argillite

Phyllite

Quartzite

Chert

Granodiorite

Limestone

Greenstone

Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1985

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

17.9000

Grams per tonne

Lead

0.0400

Per cent

COMMENTS: Best assay sample #7066.

REFERENCE: Assessment Report 15292.

CAPSULE GEOLOGY

The Fox prospect lies approximately 17 kilometres east-southeast of Bralorne on Mount Piebiter, encompassing the headwaters of Tommy, Piebiter and Connel creeks. This region of the Coast Crystalline belt contains the Cretaceous to Tertiary Bendor pluton which intrudes metamorphosed volcanics, sediments and ultramafics of the Mississippian to Jurassic Bridge River Complex (Group). The bedded rocks are predominantly argillaceous to phyllitic, with prominent thinner bedded sections of quartzite or chert, minor limestone lenses and greenstone, which appear to be folded into a broad northwest trending isocline. Plutonic rocks are granodiorite, with possible minor diorite.

Mineralization consists of pyrite, minor chalcopyrite, tetrahedrite and talc in regionally conformable quartz veins, and pyrite, pyrrhotite, trace chalcopyrite and molybdenite in a small granodiorite plug at the headwaters of Piebiter Creek. Quartz veining with tetrahedrite mineralization from a gossanous area near

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 776
REPORT: RGEN0100

CAPSULE GEOLOGY

the headwaters of Connel Creek graded up to 17.9 grams per tonne silver and 0.04 per cent lead (Assessment Report 15292). Pyrite and pyrrhotite are also present as disseminations in sedimentary rocks and locally as fracture fillings in granodiorite.

BIBLIOGRAPHY

EMPR ASS RPT *15292
EMPR EXPL 1986-C252
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/02/25
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE154**

NATIONAL MINERAL INVENTORY:

NAME(S): **NUMBER 4**, HAIDA, HIAG

MINING DIVISION: Lillooet

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092J10W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 31 07 N
 LONGITUDE: 122 52 55 W
 ELEVATION: 2027 Metres

NORTHING: 5596302
 EASTING: 508369

LOCATION ACCURACY: Within 500M

COMMENTS: Approximate location of 1987 anomalous rock samples.

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena Tetrahedrite

ASSOCIATED: Quartz

ALTERATION: Quartz Limonite Malachite

COMMENTS: Gossanous zone consisting of several north trending subparallel shear zones.

ALTERATION TYPE: Silicific'n Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Shear

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

DIMENSION: 1000 x 500 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
 Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Tuff
 Pyroclastic
 Andesite Flow
 Dacite Flow
 Sandstone
 Siltstone
 Conglomerate
 Diorite
 Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1987

SAMPLE TYPE: Grab

COMMODITY

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	177.9000	Grams per tonne
Gold	4.3500	Grams per tonne
Copper	0.6600	Per cent
Lead	0.3000	Per cent
Zinc	0.7000	Per cent

COMMENTS: Best assay 1987, sample R1089.

REFERENCE: Assessment Report 17261.

CAPSULE GEOLOGY

The Number 4 zone showing is located south of Tenquille Creek on Mount Barbour. The property is underlain by andesitic to dacitic volcanic flows and pyroclastics and a sedimentary sequence of siltstone, sandstone, conglomerate and thinly bedded limestone, all belonging to the Upper Triassic Cadwallader Group, and present in a large northwesterly trending roof pendant. Small bodies of Jurassic to Tertiary Coast Plutonic Complex diorite and unidentified light green, occasionally porphyritic dykes intrude the pendant rocks.

The main mineralized section of the Number 4 zone is a 1000 by 500 metre gossanous area consisting of several north trending,

CAPSULE GEOLOGY

subparallel shear zones, with conjugate shears in several other directions. Chalcopyrite, sphalerite, galena, tetrahedrite and malachite in quartz veins are associated with silicification, quartz veining and stockworks, and erratic high gold and silver values. In 1987, assays ranged up to 6.8 grams per tonne gold and up to 5 per cent zinc. The best fully documented sample was R1089 which contained 4.35 grams per tonne gold, 177.9 silver per tonne silver, 0.66 per cent copper, 0.30 per cent lead and 0.70 per cent zinc (Assessment Report 17261).

BIBLIOGRAPHY

EMPR AR 1961-29
EMPR ASS RPT 365, 4154, 11011, *17261
EMPR EXPL 1988-C121
EMPR FIELDWORK 1974, p. 35; 1985, pp. 303-310; 1986, pp. 23-29; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/03/05
DATE REVISED: 1991/09/17

CODED BY: CID
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE155**

NATIONAL MINERAL INVENTORY:

NAME(S): **MINTO EXTENSION 1**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J15E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 55 14 N
LONGITUDE: 122 42 35 W
ELEVATION: 1050 Metres

NORTHING: 5641031
EASTING: 520403

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 2 kilometres north of Carpenter Lake on the south flank of Pearson Ridge (Assessment Report 19843).

COMMODITIES: Gold Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Stibnite Sphalerite Arsenopyrite Galena
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive
CLASSIFICATION: Unknown
TYPE: I09 Stibnite veins and disseminations

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Taylor Creek	Unnamed/Unknown Formation	
Paleozoic-Mesozoic	Bridge River	Undefined Formation	

LITHOLOGY: Chert Pebble Conglomerate
Sediment/Sedimentary
Volcanic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Bridge River Overlap Assemblage

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1989
SAMPLE TYPE: Drill Core
COMMODITY: Gold GRADE: 4.7000 Grams per tonne
COMMENTS: From a 6.5-metre length of drill core.
REFERENCE: Assessment Report 19843.

CAPSULE GEOLOGY

The area of the Minto Extension showing is underlain mainly by volcanics and sediments of the Mississippian to Jurassic Bridge River Complex (Group). A few small outcrops of sedimentary rocks of the overlying Lower Cretaceous Taylor Creek Group are reported to occur. One such outcrop, made up of pyritic chert pebble conglomerate, contains a zone with disseminated, blebby and massive pyrite, stibnite, sphalerite, arsenopyrite and galena. One of the best trench samples taken in 1988 graded 4.42 grams per tonne gold over 9.5 metres (Assessment Report 19843). A follow-up drill program in 1989 intersected 6.8 metres grading 4.70 grams per tonne gold (Assessment Report 19843, page 9).

BIBLIOGRAPHY

EMPR ASS RPT 18277, *19843
EMPR FIELDWORK 1974, p. 35; 1986, pp. 23-29; 1987, pp. 93-104, pp. 115-130; 1989, pp. 45-51, pp. 53-72; 1990, pp. 75-83
EMPR OF 1987-11, 1989-4
EMPR PF (Statement of Material Facts, Avino Mines and Resources, August 1, 1991)
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17

DATE CODED: 1991/07/08
DATE REVISED: 1991/11/21

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE156**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILICON CIRQUE**, X-CAL, BIG ORANGE

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J10E 092J09W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 38 49 N
LONGITUDE: 122 30 13 W
ELEVATION: 1980 Metres

NORTHING: 5610683
EASTING: 535095

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 6 kilometres west of Anderson Lake and 2.5 kilometres north of McGillivray Creek (Assessment Report 19604).

COMMODITIES: Silver Gold Copper Lead Zinc
 Tungsten Antimony

MINERALS

SIGNIFICANT: Tetrahedrite Galena Sphalerite Pyrrhotite Pyrite

 Chalcopyrite

ALTERATION: Quartz Carbonate Pyrite

ALTERATION TYPE: Quartz-Carb.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

DIMENSION: 400 x 1 Metres STRIKE/DIP:

COMMENTS: The veins average 30 centimetres in width but are up to 2 metres.
The veins can be traced for more than 400 metres.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Permian			Bralorne Igneous Complex
Paleozoic			President Ultramafics

LITHOLOGY: Diorite
Listwanite
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1989

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

99.0000

Grams per tonne

REFERENCE: Assessment Report 19604, page 19.

CAPSULE GEOLOGY

The Silicon Cirque showing is located 6 kilometres west of Anderson Lake and 2.5 kilometres north of McGillivray Creek.

Following the discovery of gold in the Bridge River area in 1896 and during the subsequent gold rush of the 1930s, the Anderson Lake area saw extensive exploration. The Anderson Lake mine (092JNE079) was discovered in 1897. Six adits were driven along a north trending quartz vein. The Gold Hill (092JNE081) and Diorite (092JNE080) showings were explored by adits and pits between 1932 and 1933. Quartz veins on Prospector's Peak (092JNE159) and other quartz veins near Silicon Cirque were explored by trenches and pits probably at the same time. Stream sediment and heavy mineral sampling were conducted in the vicinity of the Silicon Cirque showing by Silver Standard Mines in 1979 and X-Cal Resources Ltd. in 1983. Noranda Mines and Placer Development confirmed several anomalies. In 1985, Mapping by Hudson Bay Exploration and Development Co. Ltd. confirmed the extension of the Cadwallader shear through the property. X-Cal Resources Ltd. drilled eight drillholes totalling 950 metres in the South Fork area. Six of these drillholes tested the Switchback vein at depth. One drillhole also tested the Gold Hill occurrence. An

CAPSULE GEOLOGY

electromagnetic (VLF-EM) conductor along South Fork Creek was tested by drillhole DDH-8. Quartz stringers with pyrite and sphalerite were intersected adjacent to albitic dikes. Canada Tungsten Mining Corp. re-logged the drill core in 1987 and several new gold soil anomalies were discovered along a major lineament. In 1989, Teck Corp. optioned the property and conducted a comprehensive exploration program. In 1990, Cogema Canada Ltd. acquired the property and conducted property exploration in 1991.

In the region of the Silicon Cirque showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex and the Upper Triassic Cadwallader Group. Linear, altered serpentinite zones called the President Ultramafics, correlative with the Permian and older Shulaps Ultramafic Complex, mark faults which have controlled the emplacement of diorite of the Permian Bralorne Igneous Complex. The above sequence lies between bodies of the Jurassic to Tertiary Coast Plutonic Complex and outlying bodies of Cretaceous to Tertiary Bendor pluton granodiorite.

The showing is entirely underlain by diorite of the Bralorne Igneous Complex. However, ultramafic rocks and albitic dikes intrude the diorite along the Ferguson overthrust, 500 metres to the east. The showing consists of quartz veins occupying a quartz-carbonate to listwanite-altered conjugate fracture system. The veins strike 020 to 040 degrees and 120 to 140 degrees, and have shallow dips to the south. Vein widths average 30 centimetres but widths in the 1 to 2 metre range also occur. Several veins have been traced for more than 400 metres along strike. The veins contain up to 3 per cent sulphides consisting of tetrahedrite, galena, and sphalerite with pyrrhotite and chalcopyrite adjacent to some of the veins in the country rocks. Pyrite is common within the quartz-carbonate to listwanite alteration zone.

The highest gold assays from 100 samples were 0.49 gram per tonne and 0.38 gram per tonne (Assessment Report 19604). Values up to and greater than, 200 grams per tonne silver, 0.55 per cent arsenic, 0.4 per cent antimony and 0.48 per cent copper were obtained from tetrahedrite-rich sections of the veins (Assessment Report 19604). Galena and sphalerite-rich sections assayed up to 99.0 grams per tonne silver with 1 to 2 per cent lead and zinc (Assessment Report 19604).

Part of the Silicon Cirque showing is the 600-metre long Big Orange zone. This zone constitutes a 75-metre wide pyritic quartz-carbonate to listwanite alteration zone with associated parallel quartz veins and minor crosscutting quartz veinlets and stringers. A few of the veins within this zone contain tungsten mineralization grading up to 0.12 per cent tungsten (Assessment

BIBLIOGRAPHY

EMPR ASS RPT *19606, 22120
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/15
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE157**

NATIONAL MINERAL INVENTORY:

NAME(S): **ARCHIBALD**, X-CAL

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 39 03 N
LONGITUDE: 122 29 37 W
ELEVATION: 1980 Metres

NORTHING: 5611120
EASTING: 535799

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 5.5 kilometres west of Anderson Lake and about 3 kilometres north of McGillivray Creek (Assessment Report 19604, Geology of the North Sheet). The location is for the northwestern part of the vein.

COMMODITIES: Lead

MINERALS

SIGNIFICANT: Galena Pyrite
ASSOCIATED: Quartz
ALTERATION: Quartz Carbonate
ALTERATION TYPE: Quartz-Carb.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: 101 Au-quartz veins
DIMENSION: 800 Metres

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metaplutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Paleozoic
Permian

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

President Ultramafics
Bralorne Igneous Complex

LITHOLOGY: Listwanite
Serpentinite
Diorite

HOSTROCK COMMENTS: The mineralized veins occur in listwanite and diorite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

In the region of the Archibald showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex (Group) and the Upper Triassic Cadwallader Group. Linear, altered serpentinite zones of the President Ultrabasics (correlative with Permian and older Shulaps Ultramafic Complex) mark faults which have controlled the emplacement of diorite of the Permian Bralorne Igneous Complex. The above sequence lies between bodies of the Jurassic to Tertiary Coast Plutonic Complex and outlying granodiorite of the Cretaceous to Tertiary Bendor pluton.

The Archibald quartz vein strikes from 120 to 130 degrees for about 800 metres, dipping 55 degrees southwest to 86 degrees north. Minor galena and pyrite were noted at the northwest end of the vein. The vein is hosted by listwanite-altered ultramafic rocks and diorite.

BIBLIOGRAPHY

EMPR ASS RPT *19606
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/15
DATE REVISED: 1991/07/15

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE158**

NATIONAL MINERAL INVENTORY:

NAME(S): **STAR MOUNTAIN, X-CAL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 39 49 N
LONGITUDE: 122 32 07 W
ELEVATION: 2025 Metres

NORTHING: 5612521
EASTING: 532845

LOCATION ACCURACY: Within 500M

COMMENTS: Located 8 kilometres west of Anderson Lake and 5 kilometres northeast of Prospector Peaks (Assessment Report 19604, page 22).

COMMODITIES: Gold Nickel Chromium

MINERALS

SIGNIFICANT: Unknown
ASSOCIATED: Quartz
ALTERATION: Ankerite
ALTERATION TYPE: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: M01 Au-quartz veins M03 Podiform chromite
 M02 Tholeiitic intrusion-hosted Ni-Cu

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic			President Ultramafics

LITHOLOGY: Ultramafic
Feldspar Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY

YEAR: 1989

Gold GRADE
 1.5500 Grams per tonne

COMMENTS: Grab sample 24282.

REFERENCE: Assessment Report 19604, page 22.

CAPSULE GEOLOGY

The Star Mountain occurrence is located 8 kilometres west of Anderson Lake and 5 kilometres northeast of Prospector Peaks. Following the discovery of gold in the Bridge River area in 1896 and during the subsequent gold rush of the 1930s, the Anderson Lake area saw extensive exploration. The Anderson Lake mine (092JNE079) was discovered in 1897. Six adits were driven along a north trending quartz vein. The Gold Hill (092JNE081) and Diorite (092JNE080) showings were explored by adits and pits between 1932 and 1933. Quartz veins on Prospector's Peak (092JNE159) and other quartz veins near Silicon Cirque (092JNE156) were explored by trenches and pits probably at the same time. Stream sediment and heavy mineral sampling were conducted in the vicinity of the Silicon Cirque showing by Silver Standard Mines in 1979 and X-Cal Resources Ltd. in 1983. Noranda Mines and Placer Development confirmed several anomalies. In 1985, Mapping by Hudson Bay Exploration and Development Co. Ltd. confirmed the extension of the Cadwallader shear through the property. X-Cal Resources Ltd. drilled eight drillholes totalling 950 metres in the South Fork area. Six of these drillholes tested the Switchback vein at depth. One drillhole also tested the Gold Hill occurrence. An electromagnetic (VLF-EM) conductor along South Fork Creek was tested by drillhole DDH-8. Quartz stringers with pyrite and sphalerite were intersected adjacent to albitic dikes. Canada Tungsten Mining Corp. re-logged the drill core in 1987 and

CAPSULE GEOLOGY

several new gold soil anomalies were discovered along a major lineament. In 1989, Teck Corp. optioned the property and conducted a comprehensive exploration program. In 1990, Cogema Canada Ltd. acquired the property and conducted property exploration in 1991.

In the region of the Star Mountain showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex and the Upper Triassic Cadwallader Group. Linear, altered serpentinite zones called the President Ultramafics, correlative with the Permian and older Shulaps Ultramafic Complex, mark faults which have controlled the emplacement of diorite of the Permian Bralorne Igneous Complex. The above sequence lies between bodies of the Jurassic to Cretaceous Coast Plutonic Complex and outlying bodies of Cretaceous to Tertiary Bendor pluton granodiorite.

The Star Mountain occurrence is apparently underlain by ankerite-altered ultramafic rocks (listwanite?) of the President Ultramafics, correlative with the Shulaps Ultramafic Complex. The occurrence consists of a 20-centimetre wide quartz vein related to a feldspar porphyry dike.

A sample from the vein assayed 1.55 grams per tonne gold (Assessment Report 19604). In 1991, prospecting and sampling by Cogema Canada Ltd. 1.8 kilometres northeast of the Star Mountain showing and 2.4 kilometres south-southwest of the Prospector Peaks (092JNE159) showing revealed anomalous nickel and chromium values from sheared, pyritic (quartz?)-carbonate altered ultramafic rocks. Sample 114R yielded 0.13 per cent nickel and 0.13 per cent chromium (Assessment Report 22120). Approximately 3.2 kilometres northwest of the Star Mountain occurrence, grab samples 096R and 097R yielded 0.93 and 0.91 gram per tonne gold, respectively (Assessment Report 22120). The samples were taken from a 0.20-metre wide quartz vein in siltstone adjacent to feldspar porphyry.

BIBLIOGRAPHY

EMPR ASS RPT *19604, *22120
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/16
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE159**

NATIONAL MINERAL INVENTORY:

NAME(S): **PROSPECTOR PEAKS**, X-CAL

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 38 26 N
LONGITUDE: 122 34 30 W
ELEVATION: 1900 Metres

NORTHING: 5609941
EASTING: 530052

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 1 kilometre northeast of Prospector Peaks and about 800 metres west of McGillivray Creek (Assessment Report 19604).

COMMODITIES: Silver Lead Zinc

MINERALS

SIGNIFICANT: Galena Pyrite Sphalerite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 1 Metres
COMMENTS: Thickness of veins averages 1 metre.

STRIKE/DIP: 112/30S

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Cadwallader

FORMATION

Hurley

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1989

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

61.9000

Grams per tonne

Lead

0.6000

Per cent

REFERENCE: Assessment Report 19604, page 22.

CAPSULE GEOLOGY

The Prospector Peaks showing is located 1 kilometre northeast of Prospector Peaks and about 800 metres west of McGillivray Creek.

Following the discovery of gold in the Bridge River area in 1896 and during the subsequent gold rush of the 1930s, the Anderson Lake area saw extensive exploration. The Anderson Lake mine (092JNE079) was discovered in 1897. Six adits were driven along a north trending quartz vein. The Gold Hill (092JNE081) and Diorite (092JNE080) showings were explored by adits and pits between 1932 and 1933. Quartz veins on Prospector Peaks and other quartz veins near Silicon Cirque (092JNE156) were explored by trenches and pits probably at the same time. Stream sediment and heavy mineral sampling were conducted in the vicinity of the Silicon Cirque showing by Silver Standard Mines in 1979 and X-Cal Resources Ltd. in 1983. Noranda Mines and Placer Development confirmed several anomalies. In 1985, Mapping by Hudson Bay Exploration and Development Co. Ltd. confirmed the extension of the Cadwallader shear through the property. X-Cal Resources Ltd. drilled eight drillholes totalling 950 metres in the South Fork area. Six of these drillholes tested the Switchback vein at depth. One drillhole also tested the Gold Hill occurrence. An electromagnetic (VLF-EM) conductor along South Fork Creek was tested by drillhole DDH-8. Quartz stringers with pyrite and sphalerite were intersected adjacent to albitic dikes. Canada Tungsten Mining Corp. re-logged the drill core in 1987 and several new gold soil anomalies were discovered along a major lineament. In 1989, Teck Corp. optioned the property and conducted a comprehensive exploration

CAPSULE GEOLOGY

program. In 1990, Cogema Canada Ltd. acquired the property and conducted property exploration in 1991.

In the region of the Prospector Peaks showing, the Cadwallader and Ferguson faults transect sedimentary and volcanic rocks of the Mississippian to Jurassic Bridge River Complex and the Upper Triassic Cadwallader Group. Linear, altered serpentinite zones called the President Ultramafics, correlative with the Permian and older Shulaps Ultramafic Complex, mark faults which have controlled the emplacement of diorite of the Permian Bralorne Igneous Complex. The above sequence lies between bodies of the Jurassic to Cretaceous Coast Plutonic Complex and outlying bodies of Cretaceous to Tertiary Bendor pluton granodiorite.

The Prospector Peaks showing consists of an area of quartz veining within silicified argillite of the Upper Triassic Hurley Formation, Cadwallader Group. The veins are white, massive bull quartz that trend 160 degrees with steep dips. Another vein set strikes 120 degrees and dips 30 degrees to the south. The veins are generally 0.5 to 1.5 metres wide but one 6-metre wide section was observed. Minor galena was noted. Further north, narrower quartz veins carry minor pyrite, galena and sphalerite. These veins trend northeast and northwest and appear to be fracture controlled.

A galena-rich section of a vein assayed 61.9 grams per tonne silver and 0.6 per cent lead (Assessment Report 19604, page 22). The maximum gold value was only 0.045 gram per tonne.

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EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/16
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 787
REPORT: RGEN0100

MINFILE NUMBER: **092JNE160**

NATIONAL MINERAL INVENTORY:

NAME(S): **D'ARCY CREEK**, GOOF, X-CAL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 34 11 N
LONGITUDE: 122 29 40 W
ELEVATION: 914 Metres

NORTHING: 5602100
EASTING: 535802

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 2 kilometres northwest of the town of D'Arcy, which is located at the southern end of Anderson Lake (Assessment Report 19604, page 17 and Figure 3B).

COMMODITIES: Lead Copper

MINERALS

SIGNIFICANT: Galena Chalcopyrite
ASSOCIATED: Quartz Carbonate
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Permian			Bralorne Igneous Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

Minor galena and chalcopyrite were observed with quartz-carbonate veins in diorite of the Permian Bralorne Igneous Complex. Malachite and azurite also occur.

BIBLIOGRAPHY

EMPR ASS RPT *19604
EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/16
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE160**

MINFILE NUMBER: **092JNE162**

NATIONAL MINERAL INVENTORY:

NAME(S): **PONDEROSA**, X-CAL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 35 18 N
LONGITUDE: 122 27 30 W
ELEVATION: 685 Metres

NORTHING: 5604188
EASTING: 538344

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 1 kilometre west of Anderson Lake, from a point about 4.5 kilometres from the south end of the lake (Assessment Report 19604, Figure 3B).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Tertiary

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Argillite
Phyllite
Granite

HOSTROCK COMMENTS: The Cretaceous to Tertiary intrusive is probably related to the Bendor pluton to the north.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The area of the Ponderosa showing is underlain by argillite and phyllite of the Mississippian to Jurassic Bridge River Complex (Group). A north trending shear is mineralized with chalcopyrite, malachite and azurite. A few tens of metres to the east is the contact of a granitic mass of Cretaceous to Tertiary age, probably related to the Bendor pluton.

BIBLIOGRAPHY

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EMPR FIELDWORK 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72
EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/16
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE163**

NATIONAL MINERAL INVENTORY:

NAME(S): **MCGILLIVERAY, X-CAL**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J09W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 36 39 N
LONGITUDE: 122 25 52 W
ELEVATION: 300 Metres

NORTHING: 5606704
EASTING: 540252

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the shore of Anderson Lake about 7 kilometres from the south end of the lake (Assessment Report 19604, Figure 3B).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY:

Chert
Argillite
Meta Volcanic
Phyllite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The area of the McGillivray showing is underlain by chert, argillite, metavolcanics and phyllite of the Mississippian to Jurassic Bridge River Complex (Group). A northeast trending quartz vein hosts chalcopyrite, malachite, azurite and pyrite.

BIBLIOGRAPHY

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EMPR OF 1988-3; 1989-4; 1990-10
GSC OF 482

DATE CODED: 1991/07/16
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE164**

NATIONAL MINERAL INVENTORY:

NAME(S): **COSMOPOLITAN, PETER, LOCO,
TAYLOR, MILLCHUK**

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 47 28 N
LONGITUDE: 122 48 36 W
ELEVATION: 1280 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5626613
EASTING: 513392

LOCATION ACCURACY: Within 500M

COMMENTS: The property adjoins to the north the King mine production levels of the Bralorne mine (092JNE001) at Goldbridge (George Cross News Letter No.111, June 10, 1991). Located approximately 1.5 kilometres north of the town of Bralorne and 0.5 kilometres west of Mead Lake. Access is from the power-line road which connects the property directly to the town of Bralorne.

COMMODITIES: Gold Silver Lead Zinc Antimony

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite
ASSOCIATED: Quartz Mariposite
MINERALIZATION AGE: Upper Cretaceous
ISOTOPIC AGE: 71 - 75 Ma

DATING METHOD:

MATERIAL DATED: Mariposite/cr-illite

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Mesothermal Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: 550 x 3 Metres
COMMENTS: The Peter vein maximum width is 3 metres but its minimum width is a few centimetres. Bulletin 108, page 133.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Permian	Cadwallader	Pioneer	Bralorne Igneous Complex

LITHOLOGY: Diorite
Gabbro
Sodic Granite
Ultramafic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEINS

REPORT ON: Y

CATEGORY: Inferred
QUANTITY: 362800 Tonnes
COMMODITY: Gold

YEAR: 1994

GRADE: 17.2000 Grams per tonne

COMMENTS: Two veins on the Loco property.
REFERENCE: Information Circular 1995-1, page 15.

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core
COMMODITY: Gold

YEAR: 1991

GRADE: 16.4600 Grams per tonne

COMMENTS: From a 2.7-metre drill interval.
REFERENCE: George Cross News Letter No.111, June 10, 1991.

CAPSULE GEOLOGY

The area of the Peter vein is underlain by Mississippian to Jurassic Bridge River Complex (Group) and Upper Triassic Cadwallader Group sediments and volcanics which are transected by a major north trending, steeply southwest dipping fault known as the Cadwallader Break. The fault is a deep-seated crustal structure related to the

CAPSULE GEOLOGY

Fraser fault system to the south. The fault is intruded by small granitic to ultramafic stocks and dykes. Diorite to gabbro of the Permian Bralorne Igneous Complex, in which most of the quartz veins are hosted, intrudes the Cadwallader Break as an elongate body. Refer to the Bralorne mine (092JNE001) for further details of the geology.

The Peter vein was first opened up on surface in 1987, but apparently had been known from the underground development of the Bralorne mine's King vein. Trenching has now traced the vein along its northwest strike for over 550 metres, with widths varying from a few centimetres to 3 metres. One sample graded 102.86 grams per tonne gold over 2.8 metres (George Cross News Letter No.111, June 10, 1991). The best intersection from 14 holes drilled on the vein graded 16.46 grams per tonne gold over 2.7 metres (George Cross News Letter No.111, 1991). Further drilling proved the existence of the vein to a depth of 167 metres. The type of mineralization that occurs within the vein was not reported but may be assumed to be like that of the King vein for which many similarities have been confirmed.

The parallel Millchuk vein, 300 metres to the north, has been traced by trenching for 670 metres, with the best chip sample grading 10.29 grams per tonne gold over 1.5 metres (George Cross News Letter No.111, 1991).

Two veins on the Loco prospect are estimated to contain 362,800 tonnes grading 17.2 grams per tonne gold (Information Circular 1995-1, page 15).

The Peter vein was drifted along a strike length of 35 metres on the 800 level, 305 metres below the surface (see Bralorne, 092JNE001).

About 1814 tonnes of ore were extracted from surface on this zone late in 1996 with grades of 3.4 to 10.2 grams per tonne gold. Included in this material is unknown tonnage of sulphide enriched quartz vein material assaying 572.4 grams per tonne gold with silver values of 1371 grams per tonne. This material plus 2267 tonnes stockpiled will be used as mill feed when the Bralorne mill starts up (George Cross News Letter No.28, February 10, 1997).

The property is held by Bralorne Pioneer Gold Mines Ltd. and International Avino Mines. Ltd.

Bralorne-Pioneer Gold Mines Ltd. performed trenching exploration during 2002 and extended the Peter vein by 366 metres to the west. Drilling began on the Peter vein in November, 2002 and 9 holes were completed. Hole #8 returned an assay of 52.28 grams per tonne gold over 1.37 metres.

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EMPR FIELDWORK 1974, p. 35; 1986, pp. 23-29; 1987, pp. 93-104, pp. 115-130; 1989, pp. 45-51, pp. 53-72; 1990, pp. 75-83
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EMPR OF 1987-11, 1989-4
EMPR PF (Statement of Material Facts, Avino Mines and Resources, August 1, 1991; Property description by B.N. Church, 1990; Plan map of trenches)
GSC OF 482
GCNL #90,*#111, 1991; #28(Feb.10), 1997
N MINER DEC.16, 1991
PR REL Bralorne-Pioneer Gold Mines Ltd., Nov.4,29, 2002; Jan.9, 2003
WWW <http://www.wingold.com>; <http://www.infomine.com/>;
<http://www.bralorne.com>; <http://www.sedar.com> (Bralorne-Pioneer Gold Mines Ltd.)

DATE CODED: 1991/07/31
DATE REVISED: 2003/02/04

CODED BY: GJP
REVISED BY: MPS

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE165**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOLDEN LEDGE**, RUTH, JUPITER,
LOUISE, JESSE ANNE

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J15W
BC MAP:

Underground

MINING DIVISION: Lillooet

LATITUDE: 50 48 30 N
LONGITUDE: 122 49 53 W
ELEVATION: 1050 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5628525
EASTING: 511880

LOCATION ACCURACY: Within 500M

COMMENTS: Located on both sides of the Hurley River midway between the Bralorne (092JNE001) and BRX properties, 1350 metres northeast of the confluence of the Hurley River and Cadwallader Creek. Access is from the main Gold Bridge to Bralorne road, six kilometres south of Gold Bridge.

COMMODITIES: Gold Lead Copper

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Tetrahedrite Pyrrhotite Chalcopyrite

ASSOCIATED: Galena
Quartz

MINERALIZATION AGE:

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Mesothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Upper Triassic
Permian

GROUP

Cadwallader

FORMATION

Pioneer

IGNEOUS/METAMORPHIC/OTHER

Bralorne Igneous Complex

LITHOLOGY: Greenstone
Argillaceous Chert
Argillite
Serpentinite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: TUNNEL

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1938

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

1.0300

Grams per tonne

REFERENCE: Letter from C.C. Starr to Frank Harrison, 1938 (Property File).

CAPSULE GEOLOGY

The Golden Ledge workings are located on both sides of the Hurley River midway between the Bralorne and BRX properties, 1350 metres northeast of the confluence of the Hurley River and Cadwallader Creek.

The property consists of 26 claims including five reverted Crown-granted claims and fractions. Quartz veins exposed on the walls of the canyon section of the Hurley River were the focus of early exploration. The first work, completed in the period 1933 to 1934, consisted of several open cuts and two short adits. In 1935 the No.3 adit was begun 130 metres above river level and driven easterly to the Ruth vein. Also, at this time, the Jupiter vein, west of the river, was traced 400 metres in a series of open cuts. From 1939 to 1940 the No.4 and No.5 adits were driven to intersect the Jupiter and Ruth veins. In 1951 drifts were extended and a crosscut was driven westerly from the north drift on the No.5 level. A cable crossing was re-established at this time to connect the No.4 workings to the west with the main operations on the east side of the river. In 1952 a total of 250 metres of exploratory tunnelling was completed in the No.4 adit. This work included extension of the existing crosscut and drifting on the Jupiter and Louise veins.

CAPSULE GEOLOGY

The principal formations exposed in the workings are greenstones, ribbon chert, black argillite, quartz-carbonate rocks and serpentinite. Lenses of the latter two rocks, up to 9 metres thick, are locally interbanded with chert in the northern part of the property, possible on a splay of the Cadwallader fault zone. The trend of the formations is northerly, coinciding generally with bedding attitudes observed in the chert. This trend is offset locally by transverse faults.

Two main veins, the Ruth and Jupiter, and several smaller veins and leads such as the Louise and Jesse Anne were explored. The Ruth vein has been followed by approximately 300 feet [90 m] of drifting in No.3 adit and about 800 feet [240 m] of drifting in No.5 adit. It consists principally of a single quartz lens, 6 inches to 2 feet [15 to 60 cm] wide, in a shear zone 1 to 4 feet [0.3 to 1.2 m] wide. The quartz is usually massive but in places it is ribboned. The mineralization is slight and consists principally of a small amount of fine pyrite. However, where ribboned, the vein contains numerous fine crystals of arsenopyrite in the sericitic partings of the ribbons. Tetrahedrite and even pyrrhotite occur here and there in the vein quartz; chalcopyrite and galena have been reported in small amounts. The southern part the Ruth vein is in greenstone and the northern part is in argillaceous chert where it is discontinuous. In the No.3 adit, the north end of the vein at the face is a faulted lens of quartz 1 metre long and 8 centimetres wide. At the south end of the same adit the vein is badly faulted and discontinuous along strike and at the face consists of 2 to 8 centimetres of quartz in 5 to 15 centimetres of shear. In the No.5 adit the northern part of the vein is cut off by a strike-slip fault 35 metres from the face; at the south end there is strong faulting and the vein is narrow and discontinuous as in the No.3 level. During the driving of the No.3 tunnel, the best assay taken was 1.03 grams per tonne gold (Letter from Starr, 1938 (located in Property File)).

The Jupiter vein was first discovered in the bluffs on the west side of the river and traced by stripping for a few hundred metres. It was subsequently intersected by the cross-cut of No.4 adit and followed southerly for 55 metres. Where intersected by the crosscut and for about 30 metres, the vein consists of a stockwork of quartz stringers 1 to 3 metres wide. Most of the stringers strike northerly and dip about 50° to the west, however, a set of diagonal stringers in the central part of the stockwork strikes north-northeast and dips 10° to 40° to the northwest. To the south along the drift, the stockwork grades into a single quartz stringer about 30 centimetres wide that narrows to a few centimetres at the face. The Jupiter vein, like the Ruth, follows a strong strike-slip fault containing, in places, 30 centimetres of gouge. The Louise vein was intersected at 68 metres from the No.4 adit portal. It consists of two stringers of quartz ranging from a few centimetres to 0.3 metre wide, dipping 30° to 35° west. The quartz is massive and sparsely mineralized with scattered pyrite, similar to the Jupiter vein.

The Jesse Anne adit was driven southerly from a draw on the east bank of the river in the quartz-carbonate zone in the northern part of the property. This adit explores vertical carbonate stringers and veins 2 to 45 centimetres wide. No quartz veins were encountered.

A number of other small showings were explored on the property during the early years of prospecting. Several narrow quartz veins, 2 to 10 centimetres wide and 3 to 30 metres long, are exposed on the bluffs 150 metres south-southeast of the Jessie Anne adit. Another vein exposure, 90 metres upstream from the No.5 adit, has a strike length of about 75 metres in a chimney near the top of the bluffs on the east side of the river. The vein dips 45° to 60° northwest following a north-northeasterly trending shear zone. Other small, relatively unmineralized quartz veins are exposed above, near the highway to Bralorne.

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- EMPR FIELDWORK 1974; 1985, pp. 303-310; 1986, pp. 23-34; 1987, pp. 93-130; 1988, pp. 105-152; 1989, pp. 45-72; 1990, pp. 75-83
- EMPR GEOL 1975-G60
- EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
- EMPR P *1995-3
- EMPR PF (Starr, C.C. (1938): Report on the Property of the Golden Ledge Syndicate: Letter from C.C. Starr, July, 1938; Map of underground workings, 1938, Scale: 1"=60'; Plan of Veins and Workings, 1938, Scale: 1"=300'; Longitudinal Projection Through Workings, 1938, Scale: 1"=100'; Plan maps of underground workings)
- GSC MAP 430A; 431A
- GSC MEM 130; 213
- GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 795
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 43-15; 73-17

DATE CODED: 1993/02/17
DATE REVISED: 1999/09/08

CODED BY: BNC
REVISED BY: GJP

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE166**

NATIONAL MINERAL INVENTORY:

NAME(S): **DAN TUCKER**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10E
BC MAP:

Underground

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 43 25 N
LONGITUDE: 122 41 10 W
ELEVATION: 1675 Metres

NORTHING: 5618919
EASTING: 522255

LOCATION ACCURACY: Within 500M

COMMENTS: The showing consists of 10 reverted crown-granted claims and fractions and is centred 7.5 kilometres southeast of the Pioneer mine (092JNE004), south of Cadwallader Creek. Access is by an old horse-trail from the confluence of Hawthorn and Cadwallader creeks. See also Red Hawk (092JNE012).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: 300 x 5 Metres

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Permian-Triassic Paleozoic	Fergusson	Unnamed/Unknown Formation	Bralorne Igneous Complex

LITHOLOGY: Quartz Sericite Schist
Felsic Dike
Serpentinite
Cherty Meta Sediment/Sedimentary
Volcanic Rock
Gabbro

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader Bridge River

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHEAR

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Gold
GRADE: 2.7000 Grams per tonne

YEAR: 1983

COMMENTS: The assay was first reported in a private 1983 report for Amir Mines Ltd. The width of the chip was not reported.

REFERENCE: Paper 1995-3.

CAPSULE GEOLOGY

The Dan Tucker prospect is centred 7.5 kilometres southeast of the Pioneer mine.

The property originally consisted of 10 Crown-granted claims and fractions. It appears that the claims were staked in the early 1930's and were shortly thereafter acquired by Pacific Eastern Gold Mines Limited. The principal exploration work at this time was considerable trenching, an exploratory shaft and a crosscut driven southwesterly 150 metres from the main Red Hawk - Butte-I.X.L access trail. The property was dormant from 1937 to 1944 at which time Noranda Mines Limited gained control. In 1973, the property was sold to R.J. Barclay and then to J.T.M. Enterprises Limited and B.R.H. Investments Limited in 1974. Normine Resources Limited optioned the property in 1983 and completed a program of sampling and geological re-evaluation.

A structurally controlled band of serpentinite up to 30 metres wide, trending northwesterly, forms a small side-hill ridge, separating Fergusson Group cherty metasediments on the north from

CAPSULE GEOLOGY

sheared volcanic rocks and gabbro (Bralorne Igneous Complex) uphill to the south. The shear zone has been the target of exploration. It is 3 to 5 metres wide and has been traced on strike for more than 300 metres. The northwest part of the zone is a quartz sericite schist containing local pyrite disseminations and concentrations of 2 to 40%; the zone is locally intruded by felsic dikes with disseminated pyrite and, in the southeast part, calcedonic quartz veining up to 0.5 metre wide. Chip samples of the quartz assayed a maximum of 2.7 grams per tonne and ranged to less than 0.1 gram per tonne gold (Paper 1995-3).

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EMPR GEOL 1975-G60
EMPR OF 1987-11; 1988-3; 1989-4; 1990-10
EMPR P *1995-3
EMPR PF (Claim location and geology sketch map; Nordin, G. (1983):
Geological Report on the Pacific Eastern Property)
GSC MAP 430A; 431A
GSC MEM 130; 213
GSC OF 482
GSC P 43-15; 73-17

DATE CODED: 1993/02/17
DATE REVISED: 1999/09/08

CODED BY: BNC
REVISED BY: GJP

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092JNE167**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUNGOD**, SUN, APOLLO,
GOD

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 30 39 N
LONGITUDE: 122 52 59 W
ELEVATION: 1981 Metres

NORTHING: 5595437
EASTING: 508292

LOCATION ACCURACY: Within 500M

COMMENTS: The location of samples 14218 to 14220, taken from a massive sulphide showing (Assessment Report 21274).

COMMODITIES: Silver Zinc Copper

MINERALS

SIGNIFICANT: Pyrrhotite Sphalerite Chalcopyrite
COMMENTS: Chalcopyrite and sphalerite are minor.
COMMENTS: Pyrrhotite is oxidized in hostrocks. Mineralization appears to be the result of hornfelsing of more calcareous metasediments.

ALTERATION TYPE: Oxidation Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratabound
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn K02 Pb-Zn skarn
COMMENTS: Massive sulphides occur in 30-centimetre wide lenses.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Undefined Formation	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Hornfels
Massive Basaltic Andesite Flow
Andesitic Tuff
Dacitic Tuff
Lithic Tuff
Feldspar Crystal Tuff
Lapilli Tuff
Porphyritic Flow

HOSTROCK COMMENTS: Probably Pioneer and/or Hurley formations (of the Cadwallader Group).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader
METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1991	
SAMPLE TYPE: Chip		
<u>COMMODITY</u>	<u>GRADE</u>	
Silver	9.0000	Grams per tonne
Copper	0.3800	Per cent
Zinc	0.5800	Per cent

COMMENTS: Chip sample 14218 across 35 centimetres of hornfelsed metasediments.
REFERENCE: Assessment Report 21274.

CAPSULE GEOLOGY

The Sungod showing is located along a north-facing cirque of Mount Barbour, 500 metres from the summit, and south of Tenquille Creek. Mineral exploration began in the Tenquille Lake area in 1916, during the construction of the Pacific Great Eastern Railway. Between 1923 and 1937, work was conducted on the Gold King (092JNE054) and Dora May claims, and the Li-Li-Kel (092JNE052) property. The zinc-rich skarn and shear-hosted vein type mineralization on the Gold King and Dora May were explored by several opencuts and diamond drilling. Little other work was conducted

CAPSULE GEOLOGY

until the 1960s when Phelps Dodge Corp. carried out exploration work in the area. Various other companies have conducted limited exploration throughout the surrounding area since. A massive sulphide showing was reported found in 1989 by a British Columbia government geologist. In 1990, Teck Corp. staked the Apollo, Sun and God claims of the Sungod property covering the Sungod showing.

The region is underlain by a large northwest trending, northeast dipping, right-side-up, roof pendant consisting of volcanic and sedimentary rocks of the Upper Triassic Cadwallader Group. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Jurassic to Cretaceous Coast Plutonic Complex. The Cadwallader Group is unconformably overlain by a relatively thin section of volcano-sedimentary rocks thought to be of Jurassic or Cretaceous age. The Spetch Creek pluton intrudes these two stratigraphic packages. Isolated exposures of Tertiary basalts overlie the above rock units.

At the Sungod showing the Cadwallader Group has been subdivided into five units which from oldest to youngest are: 1) massive andesite, 2) mixed pyroclastic, 3) felsic volcanic, 4) mixed pyroclastic and 5) sedimentary. The massive andesite units consists of dark green massive basaltic andesite flows. The mixed pyroclastic unit consists of pale to dark green andesitic to dacitic fine tuffs, lithic tuffs, feldspar crystal tuffs and lapilli tuff with minor interbedded porphyritic flows. The felsic volcanic unit consists of light grey to pale green rhyolite and rhyodacite flows, commonly feldspar porphyritic. The mixed pyroclastic and sedimentary unit consists of well bedded andesite to dacite, lithic and lapilli tuffs with abundant limestone, limestone breccias, calcareous feldspar-rich wackes, black shale, siltstone and chert interbeds. The upper sedimentary unit consists of an upward fining sequence of cobble conglomerate, feldspar-rich greywackes and sandstones, black shale and chert. The showing is hosted by limestone in an assemblage of andesite and dacite flows, breccia and tuff and sedimentary rocks.

The Sungod showing consists of narrow (30 centimetre wide) lenses of pyrrhotite, with occasional trace chalcopyrite and sphalerite hosted in mudstones and cherty beds. Associated rocks are well bedded lithic tuffs and feldspar-rich wackes of the Cadwallader Group. Local patchy oxidized pyrrhotite clots occur throughout the hostrocks. The mineralization appears to be due to hornfelsing of more calcareous beds.

The best results from three samples taken from the Sungod showing were from Sample 14218, which yielded 0.38 per cent copper, 0.58 per cent zinc and 9.0 grams per tonne silver across 35 centimetres (Assessment Report 21274).

BIBLIOGRAPHY

- EMPR AR 1922-138; 1923-P167; 1925-178; 1926-193; 1927-219; 1928-219; 1929-235; 1930-203; 1931-113; 1932-211; 1961-29
EMPR ASS RPT 365, 4154, 10299, 11011, 17261, 19169, 20642, *21274
EMPR EXPL 1988-C121
EMPR FIELDWORK 1990, pp. 56-64
EMPR OF *1989-26
EMPR PF (Skerl, A.C. (1952): Report on the National Consolidated Base Metal Company Near Maude Lake; Statement of Material Facts, Tenquille Resources Ltd., 1987)
GSC MAP 13-1973
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE168**

NATIONAL MINERAL INVENTORY:

NAME(S): **GIN, SUN, APOLLO,
GOD, SUNGOD, CERULEAN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 30 06 N
LONGITUDE: 122 50 21 W
ELEVATION: 1798 Metres

NORTHING: 5594423
EASTING: 511406

LOCATION ACCURACY: Within 500M

COMMENTS: The location of samples 14126 to 14134, taken from a massive pyrrhotite skarn (Assessment Report 21274).

COMMODITIES: Silver Zinc Copper Cobalt Bismuth

MINERALS

SIGNIFICANT: Pyrrhotite Sphalerite Chalcopyrite
COMMENTS: Chalcopyrite and sphalerite are minor. Samples were also anomalous in cobalt, bismuth and manganese.

ALTERATION TYPE: Oxidation Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratabound

CLASSIFICATION: Skarn

TYPE: K01 Cu skarn

DIMENSION: 300 x 3 Metres

STRIKE/DIP: K02 Pb-Zn skarn TREND/PLUNGE:

COMMENTS: Massive skarn occurs over 3 by 300 metres.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Skarn
Chert
Mudstone
Massive Basaltic Andesite Flow
Andesitic Tuff
Dacitic Tuff
Lithic Tuff
Feldspar Crystal Tuff
Lapilli Tuff
Porphyritic Flow

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Cadwallader

METAMORPHIC TYPE: Contact

RELATIONSHIP: Syn-mineralization

GRADE: Hornfels

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1991

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

0.6000

Grams per tonne

Copper

0.1000

Per cent

Zinc

1.3000

Per cent

COMMENTS: The best of seven samples; 14126 to 14134.

REFERENCE: Assessment Report 21274.

CAPSULE GEOLOGY

The Gin showing is located 200 metres south of the west end of Cerulean Lake, south of Tenquille Creek.

Mineral exploration began in the Tenquille Lake area in 1916, during the construction of the Pacific Great Eastern Railway. Between 1923 and 1937, work was conducted on the Gold King (092JNE054) and Dora May claims, and the Li-Li-Kel (092JNE052) property. The zinc-rich skarn and shear-hosted vein type mineralization on the Gold King and Dora May were explored by several opencuts and diamond drilling. Little other work was conducted until

CAPSULE GEOLOGY

the 1960s when Phelps Dodge Corp. carried out exploration work in the area. Various other companies have conducted limited exploration throughout the surrounding area since. In 1990, Teck Corp. staked the Apollo, Sun and God claims of the Sungod property covering the Gin showing.

The region is underlain by a large northwest trending, northeast dipping, right-side-up, roof pendant consisting of volcanic and sedimentary rocks of the Upper Triassic Cadwallader Group. The pendant is contained within intrusive rock, ranging from granite to granodiorite to quartz diorite, of the Jurassic to Cretaceous Coast Plutonic Complex. The Cadwallader Group is unconformably overlain by a relatively thin section of volcano-sedimentary rocks thought to be of Jurassic or Cretaceous age. The Spetch Creek pluton intrudes these two stratigraphic packages. Isolated exposures of Tertiary basalts overlie the above rock units.

At the Gin showing the Cadwallader Group has been subdivided into five units which from oldest to youngest are: 1) massive andesite, 2) mixed pyroclastic, 3) felsic volcanic, 4) mixed pyroclastic and 5) sedimentary. The massive andesite units consists of dark green massive basaltic andesite flows. The mixed pyroclastic unit consists of pale to dark green andesitic to dacitic fine tuffs, lithic tuffs, feldspar crystal tuffs and lapilli tuff with minor interbedded porphyritic flows. The felsic volcanic unit consists of light grey to pale green rhyolite and rhyodacite flows, commonly feldspar porphyritic. The mixed pyroclastic and sedimentary unit consists of well bedded andesite to dacite, lithic and lapilli tuffs with abundant limestone, limestone breccias, calcareous feldspar-rich wackes, black shale, siltstone and chert interbeds. The upper sedimentary unit consists of an upward fining sequence of cobble conglomerate, feldspar-rich greywackes and sandstones, black shale and chert. The showing is hosted by limestone in an assemblage of andesite and dacite flows, breccia and tuff and sedimentary rocks.

The Gin showing consists of massive pyrrhotite skarn, with sphalerite and chalcopryrite adjacent to the Spetch Creek pluton. Copper and zinc concentrations are patchy. The mineralized zone is 3 metres wide by 300 metres long. The adjacent granite is extremely oxidized and rusty, containing fine seams and clots of pyrite and chalcopryrite. Pyritic seams within the Spetch pluton contains up to 0.13 per cent copper (Sample 14206) (Assessment Report 21274). Lenses of pyrrhotite, with occasional trace chalcopryrite and sphalerite are hosted in mudstones and cherty beds. Associated rocks are well bedded lithic tuffs and feldspar-rich wackes of the Cadwallader Group. Local patchy oxidized pyrrhotite clots occur throughout the hostrocks. The mineralization appears to be due to hornfelsing of more calcareous beds.

The best results from seven samples taken from the Gin showing yielded 0.10 per cent copper, 1.30 per cent zinc, 0.6 grams per tonne silver, 0.12 per cent cobalt, 0.59 per cent bismuth and 0.58 per cent manganese (Assessment Report 21274).

BIBLIOGRAPHY

- EMPR ASS RPT 365, 4154, 10299, 11011, 17261, 19169, 20642, *21274, 22341
EMPR PF (Skerl, A.C. (1952): Report on the National Consolidated Base Metal Company Near Maude Lake; Tenquille Resources Ltd. (1987): Statement of Material Facts)
GSC MAP 13-1973
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JNE169**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOPE**

MINING DIVISION: Lillooet

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092J10W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 35 30 N
 LONGITUDE: 122 58 50 W
 ELEVATION: 1500 Metres

NORTHING: 5604418
 EASTING: 501376

LOCATION ACCURACY: Within 500M

COMMENTS: No. 1 showing, Assessment Report 25645.

COMMODITIES: Copper Zinc Lead Gold Silver

MINERALS

SIGNIFICANT: Pyrite Sphalerite Chalcopyrite
 ASSOCIATED: Calcite Magnetite
 ALTERATION: Chlorite Epidote Garnet

MINERALIZATION AGE:

DEPOSIT

CHARACTER: Disseminated
 CLASSIFICATION: Hydrothermal Epithermal Volcanogenic Skarn
 TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Unnamed/Unknown Formation	

LITHOLOGY: Chloritic Meta Volcanic
 Feldspar Quartz Porphyry

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
 SAMPLE TYPE: Chip

YEAR: 1998

<u>COMMODITY</u>	<u>GRADE</u>	
Gold	0.4000	Grams per tonne
Silver	24.0000	Grams per tonne
Copper	0.0240	Per cent
Lead	0.0535	Per cent
Zinc	0.9050	Per cent

COMMENTS: Rock chip sample over 2.3 metres.
 REFERENCE: Assessment Report 25645.

CAPSULE GEOLOGY

The Hope property is located about 30 kilometres south-southwest of Gold Bridge. The showings were discovered in 1997 by T. Illidge and sampled and surveyed by W. Gruenwald in 1998.

The area lies on the east flank of the Coast Plutonic Complex. Several large roof pendants of upper Triassic Cadwallader Group sediments and volcanic rocks are encompassed and intruded by large granitic intrusions. Lithologies include chloritic metavolcanics, likely derived from tuffaceous rocks. These are intruded by feldspar porphyry dikes.

Two types of mineralization include disseminated to semi-massive pyrite-sphalerite and skarn hosted magnetite-copper zones. The sulphide rich zone appears to be conformable to the schistosity of the host chloritic metavolcanics; narrow rhodonite veins occur. A 2.3-metre rock chip sample returned 0.4 gram per tonne gold, 24 grams per tonne silver, 0.024 per cent copper, 0.05 per cent lead and 0.9 per cent zinc (Assessment Report 25645). The second type of mineralization, 150 metres to the northwest, is related to a zone of strongly epidotized metavolcanics that hosts a north-northwest trending, steeply dipping band of semi-massive magnetite-garnet-epidote with chalcopyrite and malachite. A 2-metre chip sample yielded 0.168 per cent copper. Another magnetite occurrence, discovered 78 metres northerly, returned 0.236 per cent

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
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REPORT: RGEN0100

CAPSULE GEOLOGY

copper and 0.14 per cent zinc (Assessment Report 25645).

BIBLIOGRAPHY

EMPR ASS RPT *25645
GSC MAP 13-1973
GSC OF 482
GSC P 73-17

DATE CODED: 2000/04/07
DATE REVISED: / /

CODED BY: LDJ
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE001**

NATIONAL MINERAL INVENTORY: 092J2 Cu3

NAME(S): **LONDON, AXE, HARD CASH,
ROYAL EDWARD, ALBANY**

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:
LATITUDE: 50 04 29 N
LONGITUDE: 122 55 15 W
ELEVATION: 1204 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Adit entrance at 3950 level (Property File - New Jersey Zinc Corp.)

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5546942
EASTING: 505665

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Magnetite Molybdenite
COMMENTS: Gold and silver values, while anomalous, are generally low.
ASSOCIATED: Quartz Chlorite Garnet
ALTERATION: Quartz Garnet Malachite
ALTERATION TYPE: Silicific'n Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Podiform
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn
DIMENSION:
COMMENTS: Attitude is that of outcropping strata.

L04 Porphyry Cu ± Mo ± Au
STRIKE/DIP: 150/40W TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Chlorite Schist
Sericite Schist
Dacite Porphyry
Argillite
Limestone

HOSTROCK COMMENTS: Intrusive rocks ascribed to the Coast Plutonic Complex (Property File, MacDonald (1970)) may in fact be part of the Gambier Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: UNDERGROUND WORKINGS REPORT ON: Y
CATEGORY: Indicated YEAR: 1970
QUANTITY: 6500000 Tonnes
COMMODITY: Copper GRADE: 0.6600 Per cent
COMMENTS: Tonnage estimated using a cutoff grade of 0.34 per cent copper.
REFERENCE: Property File - MacDonald, 1970.

CAPSULE GEOLOGY

The London prospect is located approximately six kilometres southeast of Alta Lake on the northeast facing slopes of Whistler Mountain, adjacent to Garibaldi Provincial Park.

Underlying the area is a northeast trending roof pendant of metavolcanic rocks of the Lower Cretaceous Gambier Group, enclosed by plutonic rocks of the Jurassic to Cretaceous Coast Plutonic Complex. Gambier rocks include chlorite and sericite schist, argillite and minor limestone. Felsic porphyry of dacitic composition, much of it intensely altered, also occurs; it may or may not be part of the Gambier Group.

Mineralization is confined to a 50 metre wide zone on either side of the dacite porphyry-metavolcanic contact. Chalcopyrite occurs primarily as blebs in "knots" of quartz and chlorite up to 15 centimetres in diameter. Pyrite-chalcopyrite-magnetite skarn

CAPSULE GEOLOGY

mineralization occurs within garnetiferous lenses replacing limestone or limey tuff at, or near, the intrusive contact. Disseminated pyrite is common within the schists.

A 158-metre adit was driven in 1915 and a second adit, 455 metres in length, in 1967-68. Reserves calculated in 1970 consist of 6,500,000 tonnes of 0.66 per cent copper (Property File - MacDonald, 1970).

BIBLIOGRAPHY

EMPR AR 1910-K147; 1930-A312; 1963-94; 1964-146; 1965-223; 1967-60;
1968-74
EMPR GEM 1971-305; 1969-192
EMPR PF (*Report by R.C. MacDonald, 1970; Letter, N.C. Carter, 1974)
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/22

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE002**

NATIONAL MINERAL INVENTORY:

NAME(S): **TEXAS**, N. POOLE CREEK,
HORSES ASS

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 29 53 N
LONGITUDE: 122 44 01 W
ELEVATION: 700 Metres

NORTHING: 5594043
EASTING: 518893

LOCATION ACCURACY: Within 500M
COMMENTS: Confluence of Birkenhead River and Texas Creek.

COMMODITIES: Copper Zinc Gold Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite

COMMENTS: Sphalerite occurs in minor amounts.

ALTERATION: Chlorite Epidote Clay

ALTERATION TYPE: Propylitic Argillic Skarn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Layered

CLASSIFICATION: Skarn

SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Andesitic Lapilli Tuff
Andesitic Lithic Tuff
Andesite Flow
Rhyolite
Argillite
Granodiorite

HOSTROCK COMMENTS: Granodiorite of the Coast Plutonic Complex outcrops to the west of the showing.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Texas showing occurs to the north of Pemberton near the confluence of the Birkenhead River and Texas (or Tenas) Creek. The area is underlain by volcanic rocks of the Upper Triassic Cadwallader Group, here consisting mainly of andesitic lapilli tuff and lithic tuff with interbedded andesite flows, argillite and rhyolite. Granodiorite of the Jurassic to Tertiary Coast Plutonic Complex outcrops in the western part of the area.

Mineralization consists of up to 15 per cent disseminated pyrite within argillically and propylitically altered volcanic rocks. Layered epidote-chlorite skarn containing chalcopyrite and minor sphalerite also occurs. Gold and silver are associated with skarn mineralization.

BIBLIOGRAPHY

EM EXPL 2002-29-40
EMPR ASS RPT 11399, *12601
EMPR GEM 1969-189; 1970-226
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/02

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE003**

NATIONAL MINERAL INVENTORY:

NAME(S): **AG**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 42 N
LONGITUDE: 122 06 38 W
ELEVATION: 2135 Metres

NORTHING: 5551425
EASTING: 563596

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralized vein (Assessment Report 14096).

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Galena
ALTERATION: Limonite Pyrite
ALTERATION TYPE: Oxidation Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Miocene	Unnamed/Unknown Group	Unnamed/Unknown Formation	
Paleozoic			Unnamed/Unknown Informal

LITHOLOGY: Rhyolite Breccia
Rhyolite
Dacite
Feldspar Biotite Schist
Quartz Monzonite

HOSTROCK COMMENTS: Neither the Paelozoic metasedimentary rocks or Miocene volcanics of the area have been named (Geological Survey of Canada Open File 482).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1985	
SAMPLE TYPE: Chip		
<u>COMMODITY</u>	<u>GRADE</u>	
Silver	100.0000	Grams per tonne
Gold	3.5000	Grams per tonne
Copper	0.0800	Per cent
Lead	0.1000	Per cent
Zinc	0.2700	Per cent

COMMENTS: Chip sample across a 10-centimetre wide sulphide vein.
REFERENCE: Assessment Report 14096.

CAPSULE GEOLOGY

The AG showing occurs near the eastern margin of the Coast Crystalline belt at the contact of Miocene volcanic rocks and metasedimentary rocks of probable Paleozoic age. The Paleozoic rocks are preserved as a roof pendant in plutonic rocks while the Miocene volcanics lie on both the metasedimentary and plutonic rocks. The volcanics may be comagmatic with some of the plutonic rocks of the area.

In the area of the showing are rhyolitic and dacitic volcanic rocks and feldspar biotite schist. Quartz monzonite crops out to the northeast. A number of narrow, widely-spaced massive sulphide veins occur as shear-fillings along a pyritically altered zone at the contact of the volcanics with metasedimentary rocks. The pyritic zone has been traced for nearly one kilometre along strike.

A 10-centimetre wide sulphide vein containing galena and chalcopyrite assayed 3.5 grams per tonne gold, 100 grams per tonne silver, 0.08 per cent copper, 0.27 per cent zinc and less than 0.1 per cent lead (Assessment Report 14096).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 808
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR ASS RPT *14096
EMPR EXPL 1986-C249
GSC OF 482

DATE CODED: 1991/01/28
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE004**

NATIONAL MINERAL INVENTORY: 092J7 Cu1

NAME(S): **COPPER QUEEN**, OWL CREEK (A ZONE), OWL CREEK,
A ZONE, OC, KB

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J07W
BC MAP:
LATITUDE: 50 22 48 N
LONGITUDE: 122 45 29 W
ELEVATION: 900 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Copper Queen adit (Assessment Report 599).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5580910
EASTING: 517202

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Bornite Pyrite
ASSOCIATED: Quartz Magnetite
ALTERATION: Azurite Malachite
ALTERATION TYPE: Propylitic Argillic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Discordant Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Diorite
Quartz Diorite
Feldspar Porphyry
Andesitic Lapilli Tuff
Andesitic Lithic Tuff
Andesitic Crystal Tuff
Granodiorite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: A REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1968
SAMPLE TYPE: Drill Core
COMMODITY: Copper 0.2000 Per cent
COMMENTS: Average copper grade over 185-metre intersection.
REFERENCE: Assessment Report 4623.

CAPSULE GEOLOGY

The Copper Queen occurrence is located on Owl Creek, north-northwest of Mount Currie. The region is underlain by the Upper Triassic Cadwallader Group which has been intruded by felsic plutons of the Jurassic to Tertiary Coast Plutonic Complex. The strata near the prospect consists of mainly lapilli, lithic and crustal tuff of andesitic composition. These are intruded by rocks of dioritic, quartz dioritic and granodioritic compositions. The prospect lies within a northwest trending shear zone exposed in Owl Creek.

Pyrite, chalcopyrite, malachite, azurite and molybdenite with minor magnetite and bornite occur as disseminations, blebs and fracture-fillings in quartz diorite, feldspar porphyry and dioritized volcanic rock. The host rock is propylitically and argillically altered. Both sulphide mineralization and hydrothermal alteration are thought to be related to the diorite intrusions.

In the early part of the century, an adit, about 70 metres long, was reported to have been driven at 210 degrees across the shear zone

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CAPSULE GEOLOGY

within dioritic rock. A diamond-drill hole completed in the area of the Copper Queen (Zone A) averaged 0.2 per cent copper over 185 metres (Assessment Report 4623).

BIBLIOGRAPHY

EMPR AR 1913-249; 1916-270; 1917-231; 1918-233; 1928-219
EMPR ASS RPT 599, 2106, 3625, *4623, 5292, *15597, 19735
EMPR EXPL 1987-C206
EMPR FIELDWORK 1989, pp. 39-44
EMPR GEM 1969-188, 1970-227, 1972-282, 1973-249, 1974-203
GSC OF 482
GSC P 73-17
GSC SUM RPT 1917, p. B19; 1924, pp. A76-A99

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/23

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE005**

NATIONAL MINERAL INVENTORY: 092J2 Cu1

NAME(S): **AZURE**

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 14 N
LONGITUDE: 122 56 44 W
ELEVATION: 760 Metres

NORTHING: 5550183
EASTING: 503893

LOCATION ACCURACY: Within 1 KM

COMMENTS: The original Azure property was reported to cover the valley of Fitzsimmons Creek for a distance of about 6.4 kilometres from Green Lake (Minister of Mines Annual Report 1965, page 223).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Bornite Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Porphyry Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Sericite Quartz Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE: Greenschist

CAPSULE GEOLOGY

The area of the Azure occurrence is underlain by the Lower Cretaceous Gambier Group. A northwest trending fault to the east of the area marks the contact of the Gambier rocks with quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex.

Disseminated chalcopyrite and pyrite, with secondary malachite and azurite and some bornite, are associated with quartz in a quartz sericite schist. Chalcopyrite also occurs locally in lenses of quartz up to 30 centimetres wide. Faulting parallels the schistosity. Over 4000 metres of drilling were performed on the property in the early 1960's.

BIBLIOGRAPHY

EMPR AR 1963-95; 1964-146; 1965-223
EMPR ASS RPT 508
EMPR GEM 1969-192; 1970-232
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/24

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE006**

NATIONAL MINERAL INVENTORY:

NAME(S): **OWL CREEK (B ZONE)**, OWL CREEK, B ZONE,
KB, OL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 23 06 N
LONGITUDE: 122 46 41 W
ELEVATION: 833 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5581462
EASTING: 515779

LOCATION ACCURACY: Within 500M

COMMENTS: The Owl Creek - B Zone or the Middle showing of Assessment Report 599.

COMMODITIES: Copper

Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite
ASSOCIATED: Quartz Epidote
ALTERATION: Epidote Pyrite Malachite Azurite
ALTERATION TYPE: Propylitic Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Hydrothermal Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Medium Grained Hornblende Diorite
Andesite Breccia
Andesitic Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Pre-mineralization

GRADE: Greenschist

CAPSULE GEOLOGY

The Owl Creek B zone is located on Owl Creek, to the north of Pemberton, to the southeast of Little Owl Lake. The area is underlain by deformed and metamorphosed volcanic rocks of the Upper Triassic Cadwallader Group, consisting of andesitic breccia and tuff. Intruding the volcanic rocks is diorite of the Jurassic to Tertiary Coast Plutonic Complex.

Copper mineralization occurs within diorite which has been intruded along a major northwest striking shear zone that parallels Owl Creek. Irregularly oriented fractures in unshered diorite are commonly filled with quartz, epidote, azurite and malachite and rare chalcopyrite and molybdenite. Disseminated pyrite is common within the diorite.

BIBLIOGRAPHY

EMPR AR 1916-270
EMPR ASS RPT *599, 2106, 3625, 4623, 15597, 19735
EMPR FIELDWORK 1989, pp 39-44
EMPR GEM 1969-188; 1970-227; 1972-282; 1973-249; 1974-203
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/05

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE007**

NATIONAL MINERAL INVENTORY:

NAME(S): **OWL CREEK (C ZONE)**, OWL CREEK, C ZONE,
OWL, OC, KB

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J07W
BC MAP:
LATITUDE: 50 23 53 N
LONGITUDE: 122 47 41 W
ELEVATION: 1167 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: C Zone (Assessment Report 4623).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5582910
EASTING: 514590

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite
ASSOCIATED: Quartz
ALTERATION: Silica Epidote Chlorite Pyrite
ALTERATION TYPE: Silicific'n Propylitic Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein
CLASSIFICATION: Hydrothermal Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Medium Grained Hornblende Diorite
Andesitic Tuff
Andesitic Breccia
Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP: Pre-mineralization

PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE: Greenschist

INVENTORY

ORE ZONE: C

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core
COMMODITY
Copper 0.4000 Per cent
Molybdenum 0.0290 Per cent

COMMENTS: Best assay from a 91.4-metre drill interval.
REFERENCE: Assessment Report 15597.

CAPSULE GEOLOGY

The Owl Creek C zone is located at Owl Creek, to the north of Pemberton, and near the southern tip of Little Owl Lake. The area is underlain by deformed and metamorphosed volcanic rocks of the Upper Triassic Cadwallader Group, consisting of andesitic breccia and tuff. Intruding the volcanics are rocks of the Jurassic to Tertiary Coast Plutonic Complex varying in composition from granite to granodiorite to quartz diorite.

Copper mineralization occurs within diorite bodies which have been intruded along a major northwest trending shear zone that parallels Owl Creek. The diorite has been intensely silicified, pyritized, epidotized and chloritized and cut by numerous quartz stringers. Gypsum and calcite are also present in veinlets and patches. Chalcopyrite occurs with pyrite and separately as streaks, in patches and also in quartz veins. Molybdenite occurs separately in fractures and magnetite is sporadically distributed in irregular patches not generally associated with sulphides. A 91.4-metre drill interval from this zone assayed 0.4 per cent copper and 0.029 per cent molybdenite (Assessment Report 15597).

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BIBLIOGRAPHY

EMPR AR 1916-270
EMPR ASS RPT, 2106, 3625, *4623, 5292, *15597, 19735
EMPR EXPL 1987, C-206
EMPR FIELDWORK 1989, pp. 39-44
EMPR GEM 1969-188; 1970-227; 1972-282; 1973-249; 1974-203
GSC OF 482
GSC P 73-17
GSC SUM RPT 1917, p. B19; 1924, pp. A76-A99

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/24

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE008**

NATIONAL MINERAL INVENTORY:

NAME(S): **EAGLE AX, ZIP,
 COPPER BEAR**

MINING DIVISION: Lillooet

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092J07E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 24 N
 LONGITUDE: 122 36 05 W
 ELEVATION: 335 Metres

NORTHING: 5570951
 EASTING: 528395

LOCATION ACCURACY: Within 500M

COMMENTS: Approximately 250 metres west of the Lake Adit prospect (092JSE009).

COMMODITIES: Copper Silver Zinc Lead Gold
 Iron

MINERALS

SIGNIFICANT: Chalcopyrite Magnetite Sphalerite Hematite Silver
 Arsenopyrite Pyrite Pyrrhotite

ALTERATION: Limonite Pyrite Silica Epidote Garnet Skarn

ALTERATION TYPE: Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform Shear
 CLASSIFICATION: Skarn
 TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Unnamed/Unknown Formation	

LITHOLOGY: Limestone
 Massive Andesite
 Schistose Pyritic Rhyolite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1988
SAMPLE TYPE: Channel	
<u>COMMODITY</u>	<u>GRADE</u>
Silver	10.9700 Grams per tonne
Gold	0.2100 Grams per tonne
Copper	1.8100 Per cent
Lead	0.0100 Per cent
Zinc	0.0100 Per cent

COMMENTS: One-metre wide channel sample across a massive sulphide band.
 REFERENCE: Assessment Report 9003.

CAPSULE GEOLOGY

The Eagle prospect occurs at the northwest trending contact of massive andesite and pyritic schistose rhyolite of the Upper Triassic Cadwallader Group. Bands of massive sulphide mineralization up to 2.4 metres wide are associated with a northwest striking fault within altered andesite adjacent to the andesite-rhyolite contact. The sulphide mineralization consists mainly of pyrite, pyrrhotite and chalcopyrite. Magnetite, epidote, and garnet also occur. The mineralization occurs as skarn lenses in limestone interbedded within the volcanic rocks.

A one-metre wide channel sample assayed 1.8 per cent copper, 0.21 grams per tonne gold, 10.97 grams per tonne silver and minor amounts of lead and zinc (Assessment Report 9003).

BIBLIOGRAPHY

EMPR AR 1927-217
 EMPR ASS RPT 2298, *9003, 11087, 15838, 17771
 EMPR EXPL 1987-C206; 1988-C120
 EMPR FIELDWORK 1989, pp. 39-44; 1990, pp 57-64

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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BIBLIOGRAPHY

EMPR GEM 1969-189
EMPR PF (Prospectus, Green Lake Resources, May 22, 1987)
GSC P 73-17
GSC SUM RPT 1917A-20; 1924A-86
GCNL #27,#29, 1988

DATE CODED: 1985/07/24
DATE REVISED: 1991/09/24

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE009**

NATIONAL MINERAL INVENTORY:

NAME(S): **LAKE ADIT**, RED JACKET, AX,
 ZIP

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092J07E
 BC MAP:
 LATITUDE: 50 17 25 N
 LONGITUDE: 122 36 29 W
 ELEVATION: 518 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: Lake Adit portal (Assessment Report 9003).

Underground
 MINING DIVISION: Lillooet
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5570979
 EASTING: 527920

COMMODITIES: Copper Lead Zinc Gold Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Galena Sphalerite Pyrrhotite
 COMMENTS: Minor galena and sphalerite.
 ASSOCIATED: Magnetite Epidote Chlorite Calcite Quartz
 ALTERATION: Garnet Epidote Chlorite Calcite Silica
 Malachite Azurite
 ALTERATION TYPE: Skarn Propylitic Silicific'n Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated Stratabound
 CLASSIFICATION: Skarn
 TYPE: K01 Cu skarn 105 Polymetallic veins Ag-Pb-Zn±Au
 DIMENSION: 200 x 2 Metres STRIKE/DIP:
 COMMENTS: Skarn mineralization occurs over 1 to 2 metre widths and has been traced 200 metres along a northwest trend. TREND/PLUNGE: 315/

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
 Upper Triassic Cadwallader Undefined Formation

LITHOLOGY: Andesitic Flow
 Dacitic Flow
 Limestone
 Skarn
 Rhyolitic Tuff
 Feldspar Porphyry Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
 TERRANE: Cadwallader

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1994
 SAMPLE TYPE: Drill Core

COMMODITY	GRADE	
Silver	7.0000	Grams per tonne
Gold	0.1000	Grams per tonne
Copper	0.8500	Per cent
Zinc	0.3800	Per cent

 COMMENTS: The 2.5-metre interval between 346.5 and 349 metres in drillhole LA 94-4.
 REFERENCE: Assessment Report 23693.

ORE ZONE: SAMPLE REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1981
 SAMPLE TYPE: Channel

COMMODITY	GRADE	
Silver	1.2000	Grams per tonne
Gold	0.9000	Grams per tonne
Copper	2.7950	Per cent
Lead	0.0100	Per cent
Zinc	1.8600	Per cent

 COMMENTS: A 2.4-metre channel sample adjacent to Lake Adit portal.
 REFERENCE: Assessment Report 9003.

CAPSULE GEOLOGY

Lake Adit and North Eagle showing. At the Lake adit, the average of 9 rock chip samples over 1 to 2 metres yielded up to 0.45 gram per tonne gold, 38.3 grams per tonne silver, 1.67 per cent copper and 0.70 per cent zinc (Assessment Report 23366). Five metres above the Lake Adit portal chip sample FR-6 yielded 0.79 gram per tonne gold, 26.9 grams per tonne silver, 1.4 per cent copper and 1.0 per cent zinc. Ten metres above the Lake Adit portal chip sample FR-5 yielded 0.41 gram per tonne gold, 33.9 grams per tonne silver, 0.6 per cent copper and 0.3 per cent zinc. Several semi-massive to massive sulphide lenses were found along the limestone-volcanic contact, 44 metres northwest of the Lake Adit prospect. Chip sample FR-2 across 20 centimetres yielded 0.38 gram per tonne gold, 18.3 grams per tonne silver, 2.0 per cent copper and 0.8 per cent zinc. Massive sulphide skarn mineralization was located 49 metres from the Lake Adit portal. Chip sample FR-3 across 1 metre yielded 0.11 gram per tonne gold, 11.1 grams per tonne silver, 0.4 per cent copper and 0.2 per cent zinc. At 135 metres northwest of the Lake Adit portal, massive pyrite, pyrrhotite and magnetite is hosted in andesite. Chip sample FR-10 yielded 0.06 gram per tonne gold, 2.2 grams per tonne silver, 0.7 per cent copper and 0.5 per cent zinc. From the North Eagle showing, chip sample FR-14 across 50 centimetres of massive sulphides yielded 0.08 gram per tonne gold, 6.4 grams per tonne silver, 0.5 per cent copper and 0.1 per cent zinc.

Five diamond-drill holes were also drilled in 1994, to test the contact between an induced polarization chargeability and resistivity high anomaly, and adjacent magnetic anomaly. Drillhole LA 94-4 yielded the most significant copper, zinc, silver and gold values. The 2.5-metre interval between 346.5 and 349.0 metres yielded 0.85 per cent copper, 0.38 per cent zinc, 7.0 grams per tonne silver and 0.1 gram per tonne gold (Assessment Report 23693). The remaining drillholes intersected copper values, ranging from 0.02 to 0.04 per cent, and zinc values ranging from 0.11 to 4.50 per cent (Assessment Report 23693).

Based on textural evidence, two episodes of mineralization are present: 1) ubiquitous diagenetic pyrite (30 to 20 volume per cent) and 2) epigenetic pyrite plus/minus chalcopyrite and sphalerite as bands, disseminations and fracture fillings. The second phase of mineralization is spatially related to increased sericite, pyrite plus/minus chlorite, calcite and/or epidote, chlorite, pyrite plus/minus calcite and magnetite.

BIBLIOGRAPHY

EMPR ASS RPT 2298, *9003, 11087, 15838, 17771, *23366, *23693
EMPR EXPL 1987-C206; 1988-C120
EMPR FIELDWORK 1989, pp. 39-44; 1990, pp. 57-64
EMPR GEM 1969-189
GSC OF 482
GSC P 73-17
GSC SUM RPT 1924A, p. 87

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE010**

NATIONAL MINERAL INVENTORY:

NAME(S): **BOULDER**, LILL, URE CREEK,
TUG, SKERL

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 15 54 N
LONGITUDE: 122 35 35 W
ELEVATION: 670 Metres

NORTHING: 5568174
EASTING: 529004

LOCATION ACCURACY: Within 500M
COMMENTS: Skerl's showing (Assessment Report 263)

COMMODITIES: Copper Zinc Lead Rhodonite Gemstones

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena Rhodonite
COMMENTS: Minor galena and sphalerite.
ASSOCIATED: Epidote
ALTERATION: Epidote Silica Malachite Azurite
ALTERATION TYPE: Propylitic Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Hydrothermal Volcanogenic Industrial Min.
TYPE: Q02 Rhodonite

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Cadwallader Unnamed/Unknown Formation

LITHOLOGY: Siliceous Banded Pyritic Tuff
Andesite
Andesitic Breccia
Andesitic Flow
Andesitic Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1970
SAMPLE TYPE: Grab
COMMODITY GRADE
Copper 1.5000 Per cent
COMMENTS: Sampling indicates copper grades of 0.1 to greater than 1.5 per cent.
REFERENCE: Assessment Report 11529.

CAPSULE GEOLOGY

The Boulder showing occurs within steep terrain adjacent to the west side of Lillooet Lake, southeast of Mount Currie. The area is underlain mainly by andesitic volcanic rocks of the Upper Triassic Cadwallader Group, consisting of flows and breccia which have been intruded by andesitic dykes.

Copper, lead and zinc mineralization is hosted by banded, siliceous, pyritic tuff which, in places, contains up to 20 per cent rhodonite. Massive banded pyrite is sometimes present along with chalcopyrite, malachite, azurite, galena and sphalerite. A grab sample from the main zone of mineralization graded 1.5 per cent copper (Assessment Report 11529).

BIBLIOGRAPHY

EMPR ASS RPT 263, 264, 304, 307, 2298, *11529, 15838
EMPR FIELDWORK 1989, pp. 39-44; 1990, pp. 57-64
EMPR GEM 1969-189
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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BIBLIOGRAPHY

GSC SUM RPT 1924, A76-99

DATE CODED: 1985/07/24
DATE REVISED: 1991/01/28

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE011**

NATIONAL MINERAL INVENTORY:

NAME(S): **PEM**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 19 05 N
LONGITUDE: 122 48 35 W
ELEVATION: 400 Metres

NORTHING: 5574012
EASTING: 513546

LOCATION ACCURACY: Within 500M

COMMENTS: Pemberton rifle range, covered by the Pem claim (Assessment Report 11807).

COMMODITIES: Copper Lead Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Galena Molybdenite

COMMENTS: Only minor amounts of molybdenite

ALTERATION: Silica Hematite

ALTERATION TYPE: Silicific'n Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Cretaceous-Tertiary

Coast Plutonic Complex

LITHOLOGY: Diorite
Quartz Diorite
Hornblende Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Pem showing, discovered in 1980 during work following a regional geochemical survey, occurs within the town of Pemberton adjacent to the town's rifle range and a recent housing subdivision along the Lillooet River. The area is underlain by hornblende granodiorite, quartz diorite and diorite of the Jurassic to Tertiary Coast Plutonic Complex. A shear zone cutting the intrusive rocks has been silicified and mineralized.

Sulphide mineralization within the shear zone consists mainly of pyrite with some chalcopyrite and galena and minor molybdenite and hematite.

BIBLIOGRAPHY

EMPR AR 1913-249
EMPR ASS RPT *11807
EMPR BULL 20-IV-18
EMPR FIELDWORK 1989, pp. 39-44
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/04

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE012**

NATIONAL MINERAL INVENTORY:

NAME(S): **SQUEAK**, MARJERY, GREG

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 20 45 N
LONGITUDE: 122 39 19 W
ELEVATION: 1218 Metres

NORTHING: 5577140
EASTING: 524528

LOCATION ACCURACY: Within 500M
COMMENTS: Marjery adit (Assessment Report 18013).

COMMODITIES: Copper Zinc Silver Gold

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Magnetite Sphalerite Gold
COMMENTS: Free gold is mentioned by Camsell (Geological Survey of Canada
Summary Report 1917).

ASSOCIATED: Garnet Epidote Calcite Quartz Clinopyroxene
ALTERATION: Garnet Epidote Quartz Limonite Malachite

ALTERATION TYPE: Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform
CLASSIFICATION: Skarn Hydrothermal Replacement Igneous-contact
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	Unnamed/Unknown Informal
Mesozoic-Cenozoic			

LITHOLOGY: Limestone
Andesitic Breccia
Andesitic Tuff
Rhyolitic Breccia
Argillite
Conglomerate
Granodiorite
Diorite Dike
Porphyry Dike

HOSTROCK COMMENTS: Rocks of the Cadwallader Group are enclosed as a roof pendant within the Spetch Creek Pluton, part of the Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader Plutonic Rocks

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1988
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 20.8000 Grams per tonne
Copper 0.5700 Per cent
COMMENTS: Grab sample taken during 1988 preliminary exploration.
REFERENCE: Assessment Report 18013.

CAPSULE GEOLOGY

The Squeak property is located nine kilometres northeast of Pemberton, immediately north of the Mount Currie Reserve. It is underlain by sedimentary and volcanic rocks of the Upper Triassic Cadwallader Group, preserved as a roof pendant within the Upper Cretaceous Spetch Creek pluton. The old Marjery showing and adit is located in this area.
Mineralization is hosted by limestone where it has been intruded by diorite and felsic porphyry dykes, thought to be part of the Spetch Creek pluton of which a granodioritic phase is exposed to the northeast. The limestone is interbedded with andesitic and rhyolitic tuff and breccia, argillite and minor conglomerate.
Two showings, 300 metres apart, consist of garnet-epidote-

CAPSULE GEOLOGY

calcite-quartz skarns. The western showing is an eight-metre wide massive to semi-massive gossanous lens of pyrite and magnetite. The eastern showing consists of a limestone lens replaced along a northeast striking shear zone by garnet, epidote, clinopyroxene, calcite and quartz, with pyrite, magnetite, chalcopyrite and sphalerite.

A grab sample from the eastern zone assayed 20.8 grams per tonne silver and 0.57 per cent copper (Assessment Report 18013).

BIBLIOGRAPHY

EMPR AR 1914, K-249
EMPR ASS RPT *18013, 19099
EMPR FIELDWORK 1990, pp. 57-64
GSC OF 482
GSC P 73-17
GSC SUM RPT 1917B-19, 1924A-89

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/15

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE013**

NATIONAL MINERAL INVENTORY:

NAME(S): **FITZSIMMONS**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 07 11 N
LONGITUDE: 122 55 59 W
ELEVATION: 833 Metres

NORTHING: 5551944
EASTING: 504786

LOCATION ACCURACY: Within 500M

COMMENTS: Northeast corner of Lot 3076 (NTS Map 092J/2).

COMMODITIES: Copper Zinc Lead

MINERALS

SIGNIFICANT: Chalcopyrite Sphalerite Galena Pyrite
ASSOCIATED: Epidote Calcite
ALTERATION: Pyrite Epidote
ALTERATION TYPE: Propylitic Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear
CLASSIFICATION: Skarn
TYPE: K02 Pb-Zn skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Lower Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Limestone
Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Fitzsimmons property, first staked in 1901, occurs a few kilometres south of Green Lake on the Squamish-Pemberton Highway. The area is underlain by rocks of the Lower Cretaceous Gambier Group preserved as a roof pendant within plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex. The dominant lithology at the occurrence is limestone, intruded by porphyry dykes of unknown age or affinity.

Mineralization consists a chalcopyrite-rich zone within sheared and fractured limestone and a sphalerite-rich zone associated with epidote-quartz skarn.

One sample yielded 12.34 grams per tonne gold, 13.71 grams per tonne silver, 1.2 per cent copper and 12.1 per cent zinc (Starr, 1926 (Property File)).

BIBLIOGRAPHY

EMPR AR 1913-424; 1919-293; 1928-387; 1963-96
EMPR PF (Starr, C.C. (1926): Report of Examination of Fitzsimmons Property Workings and Assays, Fitzsimmons Property (1"=100'), 1926)
GSC OF 482
GSC P 73-17
GSC SUM RPT 1917B-20

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/05

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE014**

NATIONAL MINERAL INVENTORY:

NAME(S): **OWL MOUNTAIN**, NORTH STAR, IRON MAN
OWL 1

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:
LATITUDE: 50 24 06 N
LONGITUDE: 122 44 35 W
ELEVATION: 1705 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Microwave tower on Owl Mountain (NTS Map 92J/7).

MINING DIVISION: Lillooet
UTM ZONE: 10 (NAD 83)
NORTHING: 5583323
EASTING: 518261

COMMODITIES: Gold Silver Copper Cobalt

MINERALS

SIGNIFICANT: Magnetite Arsenopyrite Pyrite Chalcopyrite
ALTERATION: Limonite Silica Malachite Annabergite
ALTERATION TYPE: Skarn Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Vein
CLASSIFICATION: Skarn
TYPE: K04 Au skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Andesite
Andesitic Tuff
Volcanic Breccia
Medium Grained Hornblende Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Gold

YEAR: 1934

GRADE: 4.8000 Grams per tonne

COMMENTS: Sample taken over 1.07 metres.
REFERENCE: Assessment Report 361.

CAPSULE GEOLOGY

The Owl Mountain showing lies on Owl Mountain, adjacent to a microwave tower located about nine kilometres north of Pemberton. The area is underlain by a large northwest trending roof pendant of Upper Triassic Cadwallader Group volcanic rocks, preserved within hornblende granodiorite of the Upper Cretaceous Spetch Creek pluton.

Skarn-type mineralization consisting of massive magnetite-pyrite-arsenopyrite lens occur in fractured andesite proximal to an intrusive contact. Secondary malachite and annabergite have been observed on fracture surfaces.

Gold mineralization appears to be associated with arsenopyrite and is considered to be patchy. A 1.07-metre sample collected in 1934 graded 4.8 grams per tonne gold (Assessment Report 361). De Quadros reported an assay of 75 grams per tonne gold from andesite containing disseminated pyrite and arsenopyrite (Assessment Report 15597).

BIBLIOGRAPHY

EMPR ASS RPT *361, *15597
EMPR EXPL 1987-C206
GSC OF 482
GSC P 73-17

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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ENERGY AND MINERALS DIVISION

PAGE: 827
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT 1924, pp. 76A-99A; 1917, pp. B19

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/05

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE015**

NATIONAL MINERAL INVENTORY: 092J2 Fe1

NAME(S): **IRON KING**, COUGAR

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

Open Pit

MINING DIVISION: Vancouver

LATITUDE: 50 07 59 N
LONGITUDE: 122 58 47 W
ELEVATION: 820 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5553425
EASTING: 501449

LOCATION ACCURACY: Within 500M

COMMENTS: Iron King open pit.

COMMODITIES: Iron

MINERALS

SIGNIFICANT: Limonite
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Stratabound
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B07 Bog Fe, Mn, U, Cu, Au

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Cretaceous Quaternary	Gambier	Undefined Formation	Unnamed/Unknown Informal

LITHOLOGY: Claystone
Pyritic Tuff

HOSTROCK COMMENTS: Limonite - bog iron.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Iron King bog iron deposits, mined during the period 1918 to 1944, are located about two kilometres north of Alta Lake near the village of Whistler. The geology of the region consists of pyritic tuff of the Lower Cretaceous Gambier Group preserved as a roof pendant within plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex. Weathering of the pyritic tuffs is a likely source of the iron.

In 1944, 5,580 tonnes of ore were mined and 2,500 tonnes of iron were recovered. Analysis of the ore indicates that it varied between 40 and 50 per cent iron and contained 0.2 to 1.6 per cent sulphur, 0.1 to 3.3 per cent phosphorous and 1.2 to 5 per cent silica (Property File - Cummings, 1944).

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EMPR AR 1918-294; 1946-121; 1947-214
EMPR PF (*Report by J.J. Cummings, 1944)
GSC SUM RPT 1917B-21

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/05

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE016**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILVER QUEEN (L.2168-2172)**, PATRICK

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J08E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 21 20 N
LONGITUDE: 122 02 37 W
ELEVATION: 1525 Metres

NORTHING: 5578601
EASTING: 568034

LOCATION ACCURACY: Within 500M

COMMENTS: North corner of Crown grant Lot 2169 (Silver Queen 1) (NTS Map 92J/8).

COMMODITIES: Silver Lead Zinc Gold

MINERALS

SIGNIFICANT: Sphalerite Galena Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Quartz Sericite Kaolinite Biotite
ALTERATION TYPE: Silicific'n Sericitic Argillic
MINERALIZATION AGE: Unknown Potassic

DEPOSIT

CHARACTER: Vein Discordant
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic Coast Plutonic Complex

LITHOLOGY: Hornblende Diorite
Quartz Monzonite
Pegmatite
Mafic Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1952
SAMPLE TYPE: Channel
COMMODITY GRADE
Silver 1200.0000 Grams per tonne
Gold 2.5000 Grams per tonne
Lead 13.9000 Per cent
Zinc 5.9000 Per cent

COMMENTS: The sample is a 30-centimetre channel sample taken across Vein B.
REFERENCE: Malcolm, 1970 - Property File.

CAPSULE GEOLOGY

The Silver Queen showing occurs on a tributary of the Stein River, east of the town of Lytton. The region is underlain mainly by plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex.

The showing consists of quartz veins within fractures zones which are probably related to northwest and northeast striking faults. The dominant rock types in the area are hornblende diorite and quartz monzonite which have been intruded by pegmatite and mafic dykes. Mineralization consists of pyrite, chalcopyrite, galena and sphalerite within both the quartz veins and wallrock. Hydrothermal alteration has resulted in extensive argillic, sericitic and potassic alteration of the rocks of the area.

Samples of mineralized vein material, taken in 1952, contained up to 1200 grams per tonne silver, 2.5 grams per tonne gold, 13.9 per cent lead and 5.9 per cent zinc (Malcolm, 1970 - Property File).

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EMPR AR 1957-23
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EMPR PF (Campbell, C.M. (1951): Report on Silver Queen; Campbell,

RUN DATE: 26-Jun-2003
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ENERGY AND MINERALS DIVISION

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C.M. Jr.: (1952): Report on Silver Queen Group; *Malcolm,
D.C. (1970): Rampart Mines Limited (N.P.L.), Silver Queen,
Kamloops Mining Division; Prospectus (Feb. 15, 1971), Rampart
Mines Limited; Prospectus (Aug.4, 1972), Rampart Mines Limited;
Malcolm, D.C. (1979): Rampart Mines Limited (N.P.L.), Silver
Queen, Kamloops Mining Division)
GSC P 73-17
GCNL #74(Apr.16), #118 (Jun.18), 1980; #147(Aug.4), 1981

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/06

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE017**

NATIONAL MINERAL INVENTORY:

NAME(S): **WMM**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 20 N
LONGITUDE: 122 58 34 W
ELEVATION: 975 Metres

NORTHING: 5561486
EASTING: 501705

LOCATION ACCURACY: Within 500M

COMMENTS: Gold occurrence in silicified basalt (Assessment Report 18427).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrite
ALTERATION: Silica Chlorite
ALTERATION TYPE: Silicific'n Chloritic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
DIMENSION: Metres STRIKE/DIP: 075/72S TREND/PLUNGE:
COMMENTS: Attitude of shear zone which may control gold mineralization.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Jurassic-Cretaceous

GROUP
Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Basalt
Basalt Flow
Andesite Flow
Andesite
Hornblende Diorite
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1985

SAMPLE TYPE: Channel

COMMODITY

GRADE

Gold

5.9900

Grams per tonne

COMMENTS: Channel sample over 90 centimetres.

REFERENCE: Assessment Report 18427.

CAPSULE GEOLOGY

The WMM showing is located in the headwaters of Sixteen Mile Creek, about 15 kilometres north of Whistler. The WMM claims are owned by M.P. Warshawski. The WMM claims were first staked in 1972 by Warshawski and Manifold upon the discovery of a gold occurrence. In 1973, Bow River Resources carried out a soil survey but no anomalies were outlined. In 1988, Corona Corp. extended trenching and conducted an electromagnetic survey. Overseas Platinum Corp. optioned the property in 1989 and carried out limited electromagnetic and induced polarization surveys.

The region in which the WMM showing occurs is underlain by a roof pendant of Lower Cretaceous Gambier Group volcanic and sedimentary rocks within dominantly quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

The showing itself is hosted by massive, fine grained andesite and basalt flows with minor black argillite and narrow basalt lenses. The argillite strikes 345 degrees and dips steeply. Hornblende diorite comprises the Coast Plutonic Complex at the showing.

The WMM showing consists of two parallel, silicified, shear zones exposed in a east-west direction for 18 metres. Gold-pyrite

CAPSULE GEOLOGY

mineralization occurs within silicified and oxidized zones in the basalt which had been previously strongly chloritized. A narrow (less than 1 metre wide) shear zone, trending 075 degrees, appears to have been the main control on the emplacement of the mineralization and attendant wallrock alteration. A channel sample taken over 90 centimetres assayed 5.99 grams per tonne gold (Assessment Report 18427). Rock samples taken in 1992 failed to yield anomalous precious metal values (Assessment Report 22553).

BIBLIOGRAPHY

EMPR ASS RPT 16497, *18427, 21028, 22553
EMPR EXPL 1987-C204
GSC OF 482

DATE CODED: 1991/01/28
DATE REVISED: 1997/06/30

CODED BY: CID
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE018**

NATIONAL MINERAL INVENTORY:

NAME(S): **J, OWL LAKE, OWL S,
OL, MAR**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07W
BC MAP:

MINING DIVISION: Lillooet

LATITUDE: 50 25 53 N
LONGITUDE: 122 49 52 W
ELEVATION: 1280 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5586610
EASTING: 511995

LOCATION ACCURACY: Within 500M
COMMENTS: Chalcopyrite occurrence (Assessment Report 5292).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Quartz Pyrite Chlorite Sericite
ALTERATION TYPE: Silicific'n Propylitic Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Undefined Formation	

LITHOLOGY: Andesitic Tuff
Andesitic Porphyry
Andesite
Basaltic Dike
Andesitic Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Regional
GRADE: Greenschist

CAPSULE GEOLOGY

The Owl Lake showing is located on the northeastern side of Owl Lake approximately twelve kilometres north of Pemberton. The showing occurs within the Upper Triassic Cadwallader Group preserved as a roof pendant within plutonic rocks of the Jurassic to Cretaceous Coast Crystalline Complex. The western boundary of the Cadwallader Group is marked by the Owl Creek fault, a major northwest trending fault that has been intruded by five small plugs of diorite, quartz diorite and granodiorite composition, over 8 kilometres strike length. Rocks to the west of the fault are those of the Lower Cretaceous Fire Lake Group. To the east, the Cretaceous Scuzzy pluton is composed of diorite, quartz diorite and tonalite. The Cadwallader Group in the vicinity of the showing consists of andesitic tuff, breccia and high level porphyritic intrusions cut by minor basaltic dikes. The andesite has been pyritized and irregularly silicified, sericitized and chloritized. To the east of the Owl Creek fault are two subparallel faults which intersect a northeast striking shear zone. At this intersection the rocks contain up to 30 per cent pyrite along with minor chalcopyrite and molybdenite in fractures and quartz veinlets. The results of a soil geochemical survey in 1992 yielded numerous anomalous copper (53 to 188 parts per million), molybdenum (4 to 62 parts per million), zinc (110 to 173 parts per million) and arsenic (15 to 152 parts per million) values, most associated with a northern magnetic low and proximal to the intersection of two magnetic linears interpreted to be faults (Assessment Report 22889). In 1993, 13.4 line kilometres of induced polarization and resistivity surveys were conducted at the J showing. Two localized resistivity highs were detected but no chargeability anomalies indicative of disseminated sulphides were discovered.

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RUN TIME: 09:30:14

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22991, 23145
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GSC P 73-17
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east of Pemberton, southwestern British Columbia; Unpublished
M.Sc. thesis, University of Montana, Missoula, Montana.

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE019**

NATIONAL MINERAL INVENTORY:

NAME(S): **RM**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 02 N
LONGITUDE: 122 57 55 W
ELEVATION: 635 Metres

NORTHING: 5555371
EASTING: 502481

LOCATION ACCURACY: Within 500M

COMMENTS: Pyritic zone on Highway 99 (Assessment Report 3947).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Sericite Quartz Chlorite Epidote
ALTERATION TYPE: Propylitic Sericitic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Discordant Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Tuffaceous Andesite
Siltstone
Pyritic Shale
Granodiorite
Diorite

HOSTROCK COMMENTS: Supracrustal rocks occur within a roof pendant within dominantly granodioritic rocks of the Coast Pluton Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional

Overlap Assemblage
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1971

SAMPLE TYPE: Chip

COMMODITY

GRADE

Copper

1.5100

Per cent

COMMENTS: Chip sample over a 60 centimetre wide zone.

REFERENCE: Assessment Report 3947.

CAPSULE GEOLOGY

The RM property is located adjacent to Green Lake near the village of Whistler on Highway 99. Adjacent to the highway, outcrops of pyritic metasedimentary and metavolcanic rocks of the Lower Cretaceous Gambier Group are preserved as a roof pendant within granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. The Gambier rocks consists of andesitic tuff, siltstone and shale, regionally metamorphosed to greenschist facies.

Mineralization consists of pyrite as disseminations and fracture fillings with minor amounts of chalcopyrite. Hydrothermal alteration of the Gambier rocks is dominantly sericitic and siliceous, overprinting an earlier propylitic assemblage of chlorite and epidote.

A 60-centimetre chip sample taken across a chalcopyrite-rich zone contained 1.5 per cent copper (Assessment Report 3947).

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EMPR ASS RPT 3274, *3947
EMPR GEM 1971-306; 1972-279
EMPR PF (Report by C.M. Armstrong, 1971; Prospectus, Battlecreek

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RUN TIME: 09:30:14

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GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/13

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE020**

NATIONAL MINERAL INVENTORY:

NAME(S): **SYLVAN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 28 57 N
LONGITUDE: 122 42 53 W
ELEVATION: 762 Metres

NORTHING: 5592318
EASTING: 520240

LOCATION ACCURACY: Within 500M

COMMENTS: Small exploration opencut (Assessment Report 15409).

COMMODITIES: Gold

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform
CLASSIFICATION: Skarn
TYPE: K03 Fe skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Diorite
Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SKARN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1986

SAMPLE TYPE: Grab

COMMODITY

GRADE

Gold

46.6000

Grams per tonne

COMMENTS: Sample of skarn with 70 per cent pyrrhotite.

REFERENCE: Assessment Report 15409.

CAPSULE GEOLOGY

Located on the western slopes of Birkenhead Peak. The property is underlain by a large northwest trending roof pendant of Upper Triassic Cadwallader Group rocks. These rocks have been intruded by at least three phases of the Jurassic to Tertiary Coast Plutonic Complex, consisting here of diorite and granite.

On the Sylvan claim, massive pyrrhotite and pyrite occur adjacent to limestone and the margin of intrusive rocks. Two mineralized zones are exposed over a 21.5-metre wide face of an opencut. A grab sample from one of these zones assayed 46.6 grams per tonne (Assessment Report 15409).

BIBLIOGRAPHY

EMPR ASS RPT *15409
EMPR EXPL 1987-C206; 2002-29-40
GSC OF 482
GSC SUM RPT 1917

DATE CODED: 1991/01/31
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE021**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOWAN**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J01W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 03 36 N
LONGITUDE: 122 18 00 W
ELEVATION: 1930 Metres

NORTHING: 5545536
EASTING: 550104

LOCATION ACCURACY: Within 500M

COMMENTS: The 1984 "best assay" location (Assessment Report 13233).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz Limonite
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Miocene	Unnamed/Unknown Group	Unnamed/Unknown Formation	
Miocene			Unnamed/Unknown Informal

LITHOLOGY: Porphyritic Dacite
Lapilli Tuff
Volcanic Breccia
Quartz Monzonite
Granodiorite

HOSTROCK COMMENTS: Woodsworth (Open File 482) indicates the volcanics to be younger than the intrusive rocks although the field evidence is contradictory.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage Plutonic Rocks
PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1984
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 18.0000 Grams per tonne
Gold 0.6300 Grams per tonne

COMMENTS: Sample R24248 - silicified dacite porphyry.
REFERENCE: Assessment Report 13233.

CAPSULE GEOLOGY

The Gowan property, located between the headwaters of Gowan and Rogers creeks, is underlain by gossanous volcanic rocks of intermediate composition which are overlain by lapilli tuff and volcanic breccia, probably of Miocene age. Equigranular quartz monzonite and granodiorite, also considered to be of Miocene age, appear to intrude the volcanic rocks (Geological Survey of Canada Open File 482).

Gold-silver mineralization occurs with disseminated pyrite and arsenopyrite in a highly silicified dacite porphyry(?). A 1984 grab sample of silicified and sulphide-bearing porphyry assayed 0.63 gram per tonne gold and 18 grams per tonne silver (Assessment Report 13233).

BIBLIOGRAPHY

EMPR ASS RPT *13233
EMPR EXPL 1984-226
GSC OF 482

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 839
REPORT: RGEN0100

BIBLIOGRAPHY

GSC P 73-17

DATE CODED: 1991/02/06
DATE REVISED: 1991/11/21

CODED BY: CID
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE022**

NATIONAL MINERAL INVENTORY:

NAME(S): **HEMRICK MINES**

MINING DIVISION: New Westminster

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 02 49 N
LONGITUDE: 122 32 00 W
ELEVATION: 300 Metres

NORTHING: 5543955
EASTING: 533412

LOCATION ACCURACY: Within 500M

COMMENTS: Confluence of Billygoat Creek and Lillooet River (NTS Map 92J/2).

COMMODITIES: Gold Platinum Silver

MINERALS

SIGNIFICANT: Gold Silver Platinum
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Placer
TYPE: C01 Surficial placers

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Quaternary	Unnamed/Unknown Group	Undefined Formation	

LITHOLOGY: Unconsolidated Fluvial Gravel

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Hemrick Mines placer showing occurs on the Lillooet River at the mouth of Billygoat Creek, immediately to the south of Little Lillooet Lake. Placer gold, reportedly with platinum group metals, occurs within unconsolidated gravels of the Lillooet River. Although trenching and sampling of the gravels has been carried out, no record exists of grade or possible production.

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EMPR GEM *1973-524; 1974-359
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/14

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE023**

NATIONAL MINERAL INVENTORY:

NAME(S): **TWIN LAKE**, GLADYS, NITA,
PAT, NELS, TOM,
JIM, OLD CENTURY

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J08W

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 29 54 N
LONGITUDE: 122 19 05 W
ELEVATION: 1800 Metres

NORTHING: 5594262
EASTING: 548366

LOCATION ACCURACY: Within 1 KM
COMMENTS: South end of Lower Twin Lake (NTS Map 92J/8).

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT:	Pyrite	Tetrahedrite	Sphalerite	Arsenopyrite	Stibnite
ASSOCIATED:	Quartz				
ALTERATION:	Silica	Sericite	Carbonate	Mariposite	Limonite
	Malachite				
ALTERATION TYPE:	Silicific'n	Sericitic		Quartz-Carb.	
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Mesozoic-Cenozoic

GROUP

Bridge River

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Argillite
Chert
Serpentinite
Listwanite
Conglomerate
Andesite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE: Greenschist

CAPSULE GEOLOGY

The Twin Lakes showing occurs within steep terrain to the southeast of Anderson Lake. The region is underlain by rocks of the Mississippian to Jurassic Bridge River (Complex) Group, intruded by dominantly granodioritic stocks of the Jurassic to Tertiary Coast Plutonic Complex. The showing is underlain mainly by metasedimentary rocks comprising argillite, chert and conglomerate with some andesite and serpentinite.

Mineralization consists of sulphides within quartz veins cutting the metasediments and serpentinite and at the serpentinite-metasediment contact. Wallrock to the veins has been silicified and sericitized except about the veins associated with the serpentinite where a typical listwanitic alteration assemblage of quartz-carbonate-mariposite has developed. Sulphide minerals of the veins consist of pyrite, tetrahedrite, sphalerite, arsenopyrite and minor stibnite. Enriched silver and gold accompanies the sulphide mineralization.

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EMPR AR 1935-F11,12; 1954-108; 1967-131; 1968-162
EMPR ASS RPT *12281
EMPR PF (Report by H.H. Cohen 1963)
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/14

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE023**

MINFILE NUMBER: **092JSE024**

NATIONAL MINERAL INVENTORY:

NAME(S): **DUF**, HURLEY VEIN

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J08W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 26 19 N
LONGITUDE: 122 17 42 W
ELEVATION: 2055 Metres

NORTHING: 5587637
EASTING: 550064

LOCATION ACCURACY: Within 500M

COMMENTS: Hurley vein and adit (Assessment Report 18808).

COMMODITIES: Silver

MINERALS

SIGNIFICANT: Tetrahedrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic

SHAPE: Bladed

DIMENSION:

STRIKE/DIP: 117/44S

TREND/PLUNGE:

COMMENTS: Attitude of Hurley vein.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Upper Triassic

GROUP

Bridge River
Cadwallader

FORMATION

Undefined Formation
Hurley

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Volcanic Bedded Tuff
Mafic Volcanic
Felsic Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Bridge River

Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1987

SAMPLE TYPE: Bulk Sample

COMMODITY

GRADE

Silver

716.6000 Grams per tonne

COMMENTS: Bulk sample of unspecified size.

REFERENCE: Assessment Report 18808.

CAPSULE GEOLOGY

The Duf property occurs in the southwestern part of a large elongate roof pendant formed from rock of the Bridge River Complex and the Cadwallader Group. Mississippian to Jurassic Bridge River volcanic rocks are in fault contact with volcanic rocks of the Upper Triassic Cadwallader Group. Rocks of both groups strike to the northwest, dip to the northeast and are overturned with tops facing west. Intruding these rocks is a felsic dyke.

The Hurley vein is a fissure-controlled quartz vein up to one metre wide with disseminated tetrahedrite mineralization. The vein, which strikes at 117 degrees and dips at 44 degrees to the south, has been exposed over a distance of 10 metres in an adit assumed to have been driven in the early 1900's. A bulk sample of vein material collected in 1987 assayed 716.6 grams per tonne silver (Assessment Report 18808). Other quartz veins located in the area are barren of silver mineralization.

BIBLIOGRAPHY

EMPR ASS RPT *18808
GSC OF 482

DATE CODED: 1991/03/07
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE025**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOO, SUE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 14 17 N
LONGITUDE: 122 58 11 W
ELEVATION: 700 Metres

NORTHING: 5565100
EASTING: 502159

LOCATION ACCURACY: Within 500M

COMMENTS: Chalcopyrite showings (Assessment Report 6573).

COMMODITIES: Copper Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite
COMMENTS: Only minor chalcopyrite and sphalerite
ASSOCIATED: Quartz
COMMENTS: Chalcopyrite in narrow quartz-epidote stringers.
ALTERATION: Chlorite Epidote
ALTERATION TYPE: Propylitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Rhyolitic Tuff
Dacitic Tuff
Andesite
Dacite
Quartz Sericite Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP: Pre-mineralization GRADE: Greenschist

CAPSULE GEOLOGY

The Soo showing is located on the Soo River, 15 kilometres due north of Whistler, British Columbia.

The area was prospected by the Rainbow Syndicate in 1976-77. During 1978, Riocanex explored the area. In the following year, M. Warshawski prospected in the area. Several copper-zinc-(cobalt) soil geochemistry anomalies were discovered. In 1987, Decade International Development Ltd. optioned four claims staked by Warshawski and staked two additional claims. Geological, soil geochemical and geophysical surveys outlined a large copper-zinc-cobalt anomaly. In 1991, two diamond-drill holes were drilled to test part of this anomaly.

The Soo showing occurs within a roof pendant of Lower Cretaceous Gambier Group volcanic and sedimentary rocks. The pendant is encompassed by granitic rock of the Jurassic to Cretaceous Coast Plutonic Complex.

Volcanic rocks of the area consist of dominantly andesite with dacite and rhyolitic and dacitic flow, flow breccia, tuff, lapilli tuff and agglomerate, which are strongly fractured and faulted. Local development of quartz-sericite schist occurs associated with shear zones cutting the roof pendant. Sedimentary rocks consist of shale, greywacke, quartzite, arkosic quartzite and chert. Contacts and bedding are rarely seen but where observed strike 310 to 320 degrees and dip 60 to 65 degrees northeast. Rhyolite and rhyodacite are locally strongly sheared and altered to quartz-sericite schists; occasionally accompanied by narrow quartz veinlets. Andesitic rocks are weakly to strongly propylitically altered to chlorite and epidote.

Mineralization consists of disseminated pyrite and minor amounts of chalcopyrite within narrow quartz-epidote stringers in the volcanics. Minor amounts of disseminated sphalerite have also been

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CAPSULE GEOLOGY

noted. The best assay obtained to date is from a 1.5-metre chip sample of pyritic rhyolitic tuff which assayed 0.146 gram per tonne gold and 0.9 gram per tonne silver (Assessment Report 17961). In 1991, drillhole S 91-1 intersected minor disseminated chalcopyrite in or adjacent to narrow quartz veinlets hosted in pyroclastic rocks. Drillhole S 91-2 intersected coarser volcanic breccia overlying andesitic tuff. No significant alteration or mineralization were observed.

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EMPR EXPL 1977-E165; 1979-181; 1985-C211; 1988-C119
GSC OF 482
GSC SUM RPT 1911

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE026**

NATIONAL MINERAL INVENTORY:

NAME(S): **CU - MOLY, EILEEN**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J02E
BC MAP:

MINING DIVISION: New Westminster

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 01 41 N
LONGITUDE: 122 31 50 W
ELEVATION: 213 Metres

NORTHING: 5541856
EASTING: 533624

LOCATION ACCURACY: Within 500M

COMMENTS: Location of the Number 3 (Moly) showing (Tully, 1985). Number 1 showing (trench) is located 3 kilometres to the northwest, 100 metres north of Billy Goat Creek and 300 metres west of the main road. Number 2 showing is along the main road, 500 metres north of Number 3 showing.

COMMODITIES: Gold Silver Molybdenum Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Bornite
ASSOCIATED: Quartz Calcite
ALTERATION: Clay Sericite Quartz
ALTERATION TYPE: Argillic Sericitic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia Shear Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE: Lower Cretaceous Mesozoic-Cenozoic
GROUP: Fire Lake
FORMATION: Undefined Formation
IGNEOUS/METAMORPHIC/OTHER: Coast Plutonic Complex

LITHOLOGY: Diorite Breccia
Diorite
Argillaceous Tuff
Argillite
Lamprophyre
Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Pacific Ranges
Overlap Assemblage

INVENTORY

ORE ZONE: SHEAR
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Silver 781.0000 Grams per tonne
Gold 69.2000 Grams per tonne
COMMENTS: Best assay from a 10-centimetre wide limonitic shear.
REFERENCE: Report by Tully, 1985 - Property File.

CAPSULE GEOLOGY

The Cu-Moly property is located along the western bank of the Lillooet River, south of Little Lillooet Lake and Billygoat Creek. The region is underlain by volcanic and sedimentary rocks of the Lower Cretaceous Fire Lake Group, correlative with the Gambier Group, and intruded by dioritic rocks of the Jurassic to Tertiary Coast Plutonic Complex. The property is situated along a narrow fault-bounded block of Fire Lake Group rocks which, in this area, consist mainly of metamorphosed argillite and interbedded tuff. Diorite and dykes of possible lamprophyric composition intrude the bedded rocks.

Three mineral showings have been located. The Number 1 and Number 2 showings consist of gold-bearing quartz stringers and lenses in shear zones, mineralized with pyrite, chalcopyrite and bornite. The Number 1 showing is developed in a shear, striking 340 degrees and dipping steeply west, at the contact of argillaceous tuff and

CAPSULE GEOLOGY

diorite. The Number 2 showing occurs in a schistose section in the footwall of a shear in siliceous tuff. The northwest trending shear contains pyrite, chalcocopyrite and galena.

At the Number 3 showing, molybdenite-pyrite-chalcocopyrite mineralization occurs as blebs, disseminations and along fractures in an intrusive dioritic breccia (200 by 300 metres) which has developed around a small diorite plug. A northwest trending shear zone through the breccia was sampled and was found to grade up to 69.2 grams per tonne gold and 781 grams per tonne silver over a width of 10 centimetres (Tully, 1985). The breccia averages 0.3 per cent copper and 0.06 per cent molybdenum. Trenching and drilling were conducted on all the showings.

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EMPR EXPL 1978-E173,174; 1990-93-99
EMPR PF (Reports: B. Way and G. Allen, 1980; K.C. Fahrni, 1984;
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GSC MEM 335
GSC OF 482
GSC P 73-17

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/21

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE027**

NATIONAL MINERAL INVENTORY:

NAME(S): **SNOW**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J08E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 27 45 N
LONGITUDE: 122 12 47 W
ELEVATION: 1830 Metres

NORTHING: 5590351
EASTING: 555855

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of zone of molybdenite mineralization (Assessment Report 10095).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT:	Molybdenite	Pyrrhotite	Pyrite	Chalcopyrite	
ASSOCIATED:	Quartz				
ALTERATION:	Sericite	Quartz	Biotite	Kaolinite	
ALTERATION TYPE:	Silicific'n		Sericitic	Argillic	Potassic
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER: Stockwork Vein
CLASSIFICATION: Porphyry Hydrothermal
TYPE: L08 Porphyry Mo (Climax-type)
SHAPE: Irregular
DIMENSION: 250 x 150 Metres

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic Mesozoic-Cenozoic	Bridge River	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Granodiorite
Biotite Schist
Aplite
Basalt Dike

HOSTROCK COMMENTS: Biotite schist is thought to be of the Bridge River Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Plutonic Rocks Bridge River

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1981
SAMPLE TYPE: Drill Core

COMMODITY GRADE
Molybdenum 0.2390 Per cent

COMMENTS: From a 2-metre drill hole intersection. Grade is for molybdenite.
REFERENCE: Assessment Report 10095.

CAPSULE GEOLOGY

The Snow property is located in precipitous terrain of the Pacific Ranges to the east of Duffey Lake. The region is underlain by rocks of the Mississippian to Jurassic Bridge River Complex, intruded by granodiorite of the Jurassic to Tertiary Coast Plutonic Complex.

The showing consists of a zone of molybdenite mineralization 250 by 150 metres within granodiorite, intruded by aplite and basalt dykes. Biotite schist within the granodiorite is thought to be a remnant of Bridge River rocks preserved as a roof pendant.

Mineralization consists of molybdenite, pyrrhotite, pyrite and minor chalcopyrite in quartz veins and stringers within weakly sericitized, kaolinized and silicified granodiorite. Minor amounts of potassic alteration, expressed as secondary biotite, also occur in wallrock.

Diamond-drilling results from 1981 gave a best intersection of two metres grading 0.239 per cent molybdenite.

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BIBLIOGRAPHY

EMPR ASS RPT 8340, *10095
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/15

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE028**

NATIONAL MINERAL INVENTORY:

NAME(S): **CATARACT**

MINING DIVISION: Kamloops

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 09 N
LONGITUDE: 122 07 35 W
ELEVATION: 1220 Metres

NORTHING: 5554099
EASTING: 562432

LOCATION ACCURACY: Within 500M

COMMENTS: Southwest corner of Cataract 3 claim (Assessment Report 18185).

COMMODITIES: Molybdenum Copper Lead Zinc Silver
Gold

MINERALS

SIGNIFICANT: Molybdenite Galena Sphalerite Pyrite Chalcopyrite

Pyrrhotite

ASSOCIATED: Magnetite Quartz

COMMENTS: Quartz is associated with the molybdenite mineralization while magnetite is associated with the galena-sphalerite mineralization.

ALTERATION: Garnet Biotite Quartz Chlorite Clay

ALTERATION TYPE: Argillic Propylitic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein Breccia
CLASSIFICATION: Hydrothermal Epigenetic Skarn
TYPE: L08 Porphyry Mo (Climax-type)

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite
Diorite
Dacite Breccia
Dacite Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1988

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Gold

3.6000

Grams per tonne

COMMENTS: Three-metre drill intersection from the East zone.

REFERENCE: Assessment Report 18185.

CAPSULE GEOLOGY

The Cataract showing, located to the south of Duffey Lake, occurs in a region dominated by plutonic rocks of the Coast Plutonic Complex of Jurassic to Tertiary age. In the area of the showing, the plutonic rocks, mainly quartz monzonite, are exposed within a volcanic assemblage of mainly dacite composition which are probably genetically related to the high level quartz monzonite plugs. A northeast striking shear zone cuts both volcanic and intrusive rocks of the area.

Mineralization in the area is of two types: i) molybdenite in quartz veins and veinlets in argillically altered quartz monzonite and ii) galena and sphalerite with pyrrhotite, pyrite, minor chalcopyrite and magnetite in dacitic breccia (East Zone). Alteration minerals associated with this second type of mineralization include garnet, biotite, chlorite and minor amounts of quartz.

A 1988 drill intersection gave a best gold assay of 3.6 grams per tonne over three metres, from the East zone (Assessment Report 18185).

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RUN TIME: 09:30:14

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BIBLIOGRAPHY

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EMPR EXPL 1988-C119
GSC MAP 1386A
GSC OF 482
Chevron File

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/15

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE029**

NATIONAL MINERAL INVENTORY:

NAME(S): **LIZARD**, LATTER

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 28 59 N
LONGITUDE: 122 41 55 W
ELEVATION: 920 Metres

NORTHING: 5592385
EASTING: 521382

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Lizard 1 claim (Assessment Report 10036).

COMMODITIES: Tungsten

Molybdenum

MINERALS

SIGNIFICANT: Scheelite Molybdenite Powellite

COMMENTS: Minor powellite.

ALTERATION: Sericite K-Feldspar Chlorite Epidote Garnet

Diopside Tremolite Wollastonite

COMMENTS: Two skarn assemblages occur, i) grossular garnet-diopside-epidote and ii) tremolite-wollastonite-calcite. Wallrock alteration away from the skarn is zoned from silicification (inner), potassic, sericitic to propylitic (outer).

ALTERATION TYPE: Skarn

Potassic

Sericitic

Propylitic

Silific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

Stratiform

CLASSIFICATION: Skarn

TYPE: K05 W skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic

Jurassic-Cretaceous

GROUP

Cadwallader

FORMATION

Hurley

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY:

Limestone
Andesite Tuff
Calc-silicate
Volcanic Sediment/Sedimentary
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SKARN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1981

SAMPLE TYPE: Grab

COMMODITY

GRADE

Tungsten

5.7500

Per cent

COMMENTS: Assay is expressed in per cent tungsten trioxide.

REFERENCE: Assessment Report 10036.

CAPSULE GEOLOGY

The Lizard showing is located on Birkenhead Creek west of the Mount Currie-D'Arcy road, 18 kilometres north-northeast of Pemberton.

The showing was first staked in 1982 as the Lizard claims. In 1990, the showing was restaked as the Later claims. Earlier work not recorded is evidenced on the property by an abandoned drillhole and drill core, and trenches.

The Lizard skarn showing occurs within a region underlain mainly by plutonic rocks of the Jurassic to Cretaceous Coast Plutonic Complex, which have intruded sedimentary and volcanic rocks of the Upper Triassic Cadwallader Group.

The showing occurs where a small plug of quartz diorite of probable Cretaceous age has intruded limestone of the Hurley Formation, Cadwallader Group. A sequence of alternating mafic volcanic tuffs, massive green andesite, limy volcanic sediments, large greenish calcsilicate beds, banded creamy white limestones and metamorphic equivalents comprise hostrocks of the Lizard showing.

CAPSULE GEOLOGY

The hostrocks strike dominantly north with shallow (10 to 45 degrees) dips to the east.

The Lizard showing consists of several zones of skarn alteration. Two skarn mineral assemblages occur: i) a high grade garnet-diopside-epidote assemblage and ii) a lower grade tremolite-wollastonite-calcite assemblage. Scheelite, molybdenite and minor powellite are associated with the first assemblage. Wallrock alteration of the quartz diorite consists of a zone of silicification next to the skarn and potassium feldspar-quartz, quartz-sericite-pyrite and chlorite-epidote moving away from the skarn. The main skarn zone is up to 20 metres thick. A grab sample taken in 1981 from this zone contained 5.75 per cent tungsten trioxide (Assessment Report 10036).

BIBLIOGRAPHY

EM EXPL 2002-29-40
EMPR ASS RPT *10036, *21227
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE030**

NATIONAL MINERAL INVENTORY:

NAME(S): **DOSS**

MINING DIVISION: Kamloops

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 35 N
LONGITUDE: 122 00 53 W
ELEVATION: 2135 Metres

NORTHING: 5558707
EASTING: 570353

LOCATION ACCURACY: Within 500M

COMMENTS: Zone of stibnite-bearing quartz veins, Doss 1 claim (Assessment Report 11144).

COMMODITIES: Gold Copper

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Stibnite
ASSOCIATED: Quartz
ALTERATION: Quartz Clay Malachite
ALTERATION TYPE: Silicific'n Argillic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Unknown
Mesozoic-Cenozoic

GROUP

Unnamed/Unknown Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Phyllite
Biotite Feldspar Schist
Marble
Biotite Hornfels
Quartz Feldspar Porphyry Dike

HOSTROCK COMMENTS: Metasedimentary rocks preserved as a roof pendant within the quartz diorite are of unknown age, possibly Paleozoic (GSC Open File 482).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Pre-mineralization
GRADE: Hornfels Greenschist

CAPSULE GEOLOGY

The Doss showing occurs in a region underlain dominantly by plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex. Preserved locally within these plutonic rocks are roof pendants of metasedimentary rocks, probably of Paleozoic age.

The Doss showing consists of quartz veins occupying faults and fracture zones within quartz diorite adjacent to phyllite, biotite-feldspar schist, marble and hornfels. Intruding both the metasediments and the quartz diorite are quartz-feldspar porphyry dykes. Mineralization consists of pyrite, stibnite and arsenopyrite along with malachite and limonite in quartz veins which fill fractures and along gouge-filled fault zones.

Wallrock alteration to the mineralized quartz veins is generally not well developed except immediately adjacent to the veins where rocks are silicified and, in places, contain disseminated pyrite. Clay alteration associated with fault zones occurs in some areas.

A rock sample taken in 1983 assayed 0.75 gram per tonne gold (Assessment Report 11144, Map No. 4).

BIBLIOGRAPHY

EMPR ASS RPT *11144
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/05/15

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE031**

NATIONAL MINERAL INVENTORY:

NAME(S): **BANK**

MINING DIVISION: Lillooet

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092J07E 092J10E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 29 17 N
 LONGITUDE: 122 44 26 W
 ELEVATION: 762 Metres

NORTHING: 5592929
 EASTING: 518405

LOCATION ACCURACY: Within 500M

COMMENTS: The approximate location of rock samples Bank 3 and 4 on the Bank 4 claim, about 1 kilometre southwest of the confluence of Tenas Creek with Birkenhead River (Assessment Report 23595).

COMMODITIES: Copper Zinc Silver Gold Lead

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Arsenopyrite Sphalerite Galena

COMMENTS: Arsenopyrite, sphalerite and galena are minor.

ALTERATION: Quartz Clay Chlorite Malachite

ALTERATION TYPE: Silicific'n Argillic Chloritic Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Cadwallader	Undefined Formation	

LITHOLOGY: Lithic Tuff
 Andesitic Flow

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Cadwallader

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1994

SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	1.4000	Grams per tonne
Copper	0.1300	Per cent
Zinc	0.1500	Per cent

COMMENTS: Sample Bank 2, taken from near old workings.

REFERENCE: Assessment Report 23595.

CAPSULE GEOLOGY

The Bank showing is located 1 kilometre southwest of the confluence of Tenas Creek with Birkenhead River (Assessment Report 23595). The Bank 1 to 4 claims are owned by J.M. Malcolm (Donegal Developments Ltd.) since staking in 1994. In 1994, M. Terry was hired to evaluate the mineral potential of the property.

Regionally, the property lies in a northwest trending belt of Upper Triassic Cadwallader Group rocks, which represent a northwest trending, northeast dipping, calcalkaline, island arc, volcano-sedimentary assemblage intruded by granodiorite to quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. The Cadwallader Group consists of andesitic breccias, tuffs, rhyolites, rhyolitic tuffs and agglomerates with phyllite, sandstone, minor limestone and conglomerates. The Yalakom fault zone is located approximately 50 kilometres to the northeast. The Harrison Lake fault is postulated to pass very close to the showing, to the southwest.

The majority of outcrops in the vicinity of the Bank showing consist of medium to dark grey lithic tuff with minor andesitic flows. Minor limestone was found near the site of some old workings. The dominant fabric strikes north and dips 58 to 83 degrees to the east. The major fracture pattern strikes east and

CAPSULE GEOLOGY

dips 58 to 75 degrees south. A 5-centimetre wide shear was located in one lithic tuff outcrop. Varying degrees of silicification is evident in most outcrops. Weak to moderate argillic alteration is also present. Chloritization is strong at the old workings.

At the old workings and 200 metres to the south-southeast, pyrite and chalcopyrite with minor arsenopyrite, sphalerite and galena were observed as disseminations. Malachite is present.

Six rock samples were taken in 1994; two from the old workings and four from the outcrop to the southeast. Sample Bank 2 from the old workings yielded 0.13 per cent copper, 0.15 per cent zinc and 1.4 grams per tonne silver (Assessment Report 23595). Sample Bank 1, also from the old workings yielded 3.3 grams per tonne silver and 0.84 gram per tonne gold.

Sample Bank 4, from the outcrop, yielded 0.66 per cent copper, 22.9 grams per tonne silver and 1.02 grams per tonne gold (Assessment Report 23595). Sample Bank 3 yielded 62.0 grams per tonne silver and 4.05 grams per tonne gold. Sample 523316 yielded 0.71 per cent copper, 8.5 grams per tonne silver and 0.62 gram per tonne gold. Sample 523317 yielded 0.52 per cent copper, 19.7 grams per tonne silver and 0.58 gram per tonne gold. Samples Bank 3 and 4 also yielded 0.20 and 0.13 per cent arsenic.

BIBLIOGRAPHY

EM EXPL 2002-29-40
EMPR ASS RPT 2430, 9637, 12601, 13770, *23595
EMPR FIELDWORK 1990, pp. 37-44; 1991, pp. 57-64
EMPR OF 1989-26; 1991-12
GSC OF 432; 482
GSC P 73-17

DATE CODED: 1997/06/30
DATE REVISED: / /

CODED BY: KJM
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JSE032**

NATIONAL MINERAL INVENTORY:

NAME(S): **ZEE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J08E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 26 45 N
LONGITUDE: 122 04 05 W
ELEVATION: 1800 Metres

NORTHING: 5588617
EASTING: 566170

LOCATION ACCURACY: Within 1 KM
COMMENTS: Centre of Zee claim.

COMMODITIES: Silver Lead Zinc

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Galena Sphalerite

ASSOCIATED: Quartz

MINERALIZATION AGE:

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Biotite Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1998

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

672.6000

Grams per tonne

Lead

1.4100

Per cent

Zinc

0.5810

Per cent

REFERENCE: GCNL #39 (February 25), 1998.

CAPSULE GEOLOGY

Work on the showings, discovered in 1993, consists of trenching and sampling along quartz filled shear zones up to 3 metres in width. The zones, hosted in biotite granite, are mineralized with arsenopyrite, pyrite, galena and sphalerite. Samples assayed up to 672.6 grams per tonne silver, 1.41 per cent lead and 0.581 per cent zinc (GCNL #39 February 25, 1998). U.S. Platinum Inc. signed an option on the Zee claims in February 1998.

BIBLIOGRAPHY

GSC P 73-17

GCNL #39 (Feb.25), 1998

DATE CODED: 1998/07/29
DATE REVISED: 1998/10/27

CODED BY: LDJ
REVISED BY: LDJ

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

kilograms of copper, 164,829 kilograms of lead and 159,857 kilograms zinc. In 1977, indicated reserves included 134,800 tonnes grading 85.7 grams per tonne silver, 1.03 grams per tonne gold, 0.65 per cent copper and 5 per cent combined lead-zinc (Northern Miner, Feb. 24, 1977).

A sample taken from the North Pit over 4.5 metres assayed 1.6 grams per tonne gold, 150 grams per tonne silver, 1.71 per cent copper, 10.95 per cent lead and 14.08 per cent zinc (George Cross News Letter No. 209, 1991).

La Rock Mining Corporation drilled the Dave's Pond zone, 300 metres northeast of the Main zone (Tedi pit area), in 1993, 1995 and 1997.

BIBLIOGRAPHY

EMPR AR 1925-A301; 1926-A332; 1929-C398; 1930-A312; 1932-A210; 1934-F1
*1936-F53; 1967-61; 1968-75
EMPR ASS RPT 424, 3371, 4937, 4942, 4950, 4952, 5406, 5593, 7390,
*9265, 9404, 19433, 20047
EMPR EXPL 1979-182; 1980-246
EMPR FIELDWORK 1977, pp. 96-102
EMPR GEM 1970-231; 1971-307; 1974-199; 1969-191
EMPR GEOLOGY *1977-1981, pp. 98-100
EMPR INF CIRC 1993-13; 1994-1, p. 19; 1996-1, p. 25
EMPR OF 1994-1; 1999-2
EMPR PF (Bullis, A.R. (1970): Property Report for Barkley Valley
Mines Ltd.; Gee, D. (1973): Callaghan Project)
EMR MIN BULL MR 223 B.C. 152
EMR MIN RES BR FILE - TEDI (Callaghan) (Astra) Res.
GSC OF 432
GCNL #226, 1974; #45, 1975; #129,#140, 1976; #150, 1977; #118,#136,
1978; #233, 1979; #50,#60, 1981; #189,*#209, 1991; #90(May 8),
#156(Aug.13),#178(Sept.15),#192(Oct.5),#203(Oct.21),#248(Dec.24),
1992; #139(Jul.21), #235(Dec.8), 1997
N MINER Feb. 24, 1977; June 29, 1978
W MINER Jan. 1978
WWW <http://www.infomine.com/>
Placer Dome File
EMPR OF 1998-10

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/26

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 002**

NATIONAL MINERAL INVENTORY:

NAME(S): **ELK**, CALLANDER, BLUEGROUSE

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 07 24 N
LONGITUDE: 123 01 45 W
ELEVATION: 1844 Metres

NORTHING: 5552344
EASTING: 497915

LOCATION ACCURACY: Within 500M

COMMENTS: The northeast corner of the Elk claims (Assessment Report 12801).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite
ALTERATION: Sericite Epidote Chlorite Orthoclase Hematite

ALTERATION TYPE: Sericitic Potassic Propylitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Porphyry Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au

SHAPE: Irregular
MODIFIER: Sheared

DIMENSION: STRIKE/DIP: 320/90

TREND/PLUNGE:

COMMENTS: Mineralization is commonly within well foliated volcanic and intrusive rocks and appears to predate deformation. The attitude of 320/90 is that of the main direction of shearing.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Sericite Schist
Andesite
Granodiorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Gambier

Plutonic Rocks

METAMORPHIC TYPE: Regional

RELATIONSHIP: Post-mineralization

GRADE: Greenschist

CAPSULE GEOLOGY

The Elk copper showing is located a few kilometres southwest of Alta Lake near the township of Whistler and may be accessed from logging roads in the area.

The property occurs within steep terrane of the Pacific Ranges and is underlain mainly by granodiorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex and Lower Cretaceous metavolcanic rocks of the Gambier Group. The supracrustal rocks have been strongly sheared and foliated, with the dominant foliation trending to the northwest.

Mineralization comprises chalcopyrite, pyrite and minor molybdenite within host metavolcanic rocks and massive to strongly foliated intrusive rocks. The style of mineralization appears to be porphyry-type with modification resulting from later deformation.

BIBLIOGRAPHY

EMPR AR 1918-295; 1968-74
EMPR ASS RPT 756, 1562, 2432, *12801
EMPR GEM 1969-191; 1970-231
EMPR PF (*Report by W. Osborne, 1969)
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/03

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 003**

NATIONAL MINERAL INVENTORY: 092J3 Ag1

NAME(S): **SILVER TUNNEL**, MAIN, SUNNY CAVE,
BRANDY, BLUE JACK

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:
LATITUDE: 50 04 04 N
LONGITUDE: 123 08 55 W
ELEVATION: 762 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Silver Tunnel adit (Geology 1977-1981, Figure 32).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5546177
EASTING: 489364

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite Galena Ruby Silver
Tetrahedrite
ASSOCIATED: Quartz Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic Syngenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
SHAPE: Regular
MODIFIER: Faulted
DIMENSION: STRIKE/DIP: 026/55W TREND/PLUNGE: /
COMMENTS: General attitude of metavolcanic units in Silver Tunnel area.
The banded sulphides may be syngenetic.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	
Pliocene	Garibaldi	Unnamed/Unknown Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Felsite Dike
Quartz Latite
Andesite
Diorite
Granodiorite
Quartz Monzonite
Mafic Volcanic

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
Plutonic Rocks
RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: BLOCK C REPORT ON: Y
CATEGORY: Inferred YEAR: 1974
QUANTITY: 55060 Tonnes
COMMODITY GRADE
Silver 397.6000 Grams per tonne
Gold 0.6800 Grams per tonne
Lead 0.2700 Per cent
Zinc 0.4500 Per cent
COMMENTS: Possible reserves.
REFERENCE: Northern Miner - July 8, 1976.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 862
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR OF 1998-10

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/26

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 004**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAP**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 37 53 N
LONGITUDE: 123 03 05 W
ELEVATION: 1320 Metres

NORTHING: 5608837
EASTING: 496366

LOCATION ACCURACY: Within 5 KM

COMMENTS: Approximate location (Minister of Mines Annual Report 1965, page 144).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Cadwallader

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Andesite

HOSTROCK COMMENTS: No geological descriptions of this property exist. Lithologies are from Geological Survey of Canada Open File Map 482.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Cap showing occurs within the Pacific Ranges within the Coast Crystalline belt near its margin with the Intermontane belt. Rocks of both belts are recognised in the region and comprise andesitic volcanic rocks of the Upper Triassic Cadwallader Group and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex.

The Cap showing is located near the contact of quartz diorite and Cadwallader Group andesite. The showing comprises disseminated pyrite and chalcopyrite. Although this showing is assumed to be of porphyry type, no confirmation could be made of its nature.

BIBLIOGRAPHY

EMPR AR *1965-144
EMPR FIELDWORK 1990, pp. 57-64
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/20

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 005**

NATIONAL MINERAL INVENTORY: 092J11,14 Mo1

NAME(S): **SALAL CREEK**, SALAL, SAL,
FLOAT CREEK

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J14W 092J11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 46 08 N
LONGITUDE: 123 24 20 W
ELEVATION: 2300 Metres

NORTHING: 5624203
EASTING: 471401

LOCATION ACCURACY: Within 500M
COMMENTS: Float Creek showing (Pinsent, 1996).

COMMODITIES: Molybdenum Copper Zinc Lead

MINERALS

SIGNIFICANT: Molybdenite Pyrite Chalcopyrite Galena Sphalerite

ASSOCIATED: Quartz Specularite Magnetite
ALTERATION: Chlorite Sericite Biotite Hematite Silica

ALTERATION TYPE: Propylitic Argillic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein Stockwork

CLASSIFICATION: Porphyry
TYPE: L05 Porphyry Mo (Low F- type)

SHAPE: Irregular
COMMENTS: Age of mineralization is probably similar to that of the stock.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Miocene	Cadwallader	Unnamed/Unknown Formation	Unnamed/Unknown Informal

ISOTOPIC AGE: 8 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Biotite

LITHOLOGY: Quartz Monzonite
Quartz Diorite
Granodiorite
Basalt
Quartz Feldspar Porphyry

HOSTROCK COMMENTS: Radiometric date of the Salal Creek pluton is from Geological Survey of Canada Paper 75-1A, pages 37-40.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1966
SAMPLE TYPE: Drill Core
COMMODITY: Molybdenum GRADE: 0.1400 Per cent

COMMENTS: From 3-metre drill interval.
REFERENCE: Mustard and Wong, 1976 - Property File.

CAPSULE GEOLOGY

The Salal Creek molybdenite prospect is located in the headwaters of Salal Creek, a stream which flows into the Lillooet River about 70 kilometres northwest of Pemberton. The prospect is mostly above treeline at altitudes of about 2000 metres and above. The geology of the region in which the prospect occurs is dominated by felsic intrusions of the Coast Plutonic Complex which ranges in age from Jurassic to Tertiary. Whereas most of the plutons of this belt are no younger than Eocene, the Salal Creek pluton has been dated as Miocene in age, making it one of the youngest felsic plutons exposed in the Pacific Ranges. Plutonic rocks of the Coast Plutonic Complex in the Pemberton region have been intruded into

CAPSULE GEOLOGY

Upper Triassic metavolcanic rocks of the Cadwallader Group and, to the west of these rocks, into Lower Cretaceous volcanic rocks of the Fire Lake, or Gambier Group. Overlying the plutonic and volcanic rocks are basalt flows of the Pleistocene Garabaldi Group.

The Salal Creek prospect is underlain by a quartz monzonite body, the Salal Creek stock, which covers an area of about 60 square kilometres and is both texturally and compositionally zoned. These zones are: i) a coarse grained marginal phase; ii) a medium grained intermediate phase; iii) a fine grained core phase; and iv) an irregularly distributed quartz feldspar porphyry phase. Aplite dykes and irregularly shaped masses of quartz-alkali feldspar pegmatite occur throughout the stock.

Hydrothermal alteration of the stock comprises an outer chlorite zone assigned to a propylitic alteration facies, an inner chlorite zone, suggested to represent a transition between propylitic and argillic facies, an outer sericite zone representing argillic alteration, and an inner sericite zone or potassic alteration facies. Silicification and quartz veining along with secondary potassium feldspar and biotite occurs in this inner zone along with illite and veins of orthoclase and manganese-bearing epidote.

Superimposed on the above alteration facies is an outer hematite zone, an intermediate hematite-magnetite-pyrite zone and an inner magnetite-pyrite zone.

Molybdenite is concentrated in two zones, one in the northern part of the stock and the other in the southern part. These zones and a number of smaller ones form a discontinuous ring centred on the fine grained/coarse grained quartz monzonite contact. Molybdenite occurs as veins associated with quartz and/or pyrite, as veins and joint coatings with no associated gangue minerals and as disseminations. Other minerals present include chalcopyrite, sphalerite, fluorite, galena, specularite and magnetite, generally occurring as fracture fillings with pyrite, K-feldspar and molybdenite.

Originally discovered by Phelps Dodge in 1958, the property has been the subject of much exploration effort up to 1984 by AMAX, Cerro Mining, Utah Mines and B.P. Minerals. Verdstone and Molycor's claims cover the southern part of the 25 square mile stock which has the major target on the property - Float Creek. This area was never adequately tested due to failure to gain access to a suitable location upon which a drill site could be established. The Float Creek area is strategically located on the southwest end of a molybdenum anomaly which measures 2100 by 5200 metres. In the past, much of the early drilling was reconnaissance work. The deepest hole was 945 metres, but the best intersections were found in some of the shortest holes which showed 0.14 per cent MoS₂ over 3 metres.

In 1965, 181 chip samples averaged 0.03 per cent MoS₂, 16 continuous chip samples averaged 0.04 per cent MoS₂, and 6 bulk samples averaged 0.33 per cent MoS₂ (Mustard and Wong, 1976). In 1966, assays of 3 metre sections ranged up to 0.14 per cent MoS₂ (Mustard and Wong, 1976). Considerable leaching is believed to have impoverished the surface outcrops.

The main showing, on "Float Creek", was drilled in 1996 by Verdstone Gold Corp. Molybdenite mineralization occurs over a 6 by 5 kilometre area to the north of the Float Creek showing (Pinsent, 1996).

Two deep diamond drill holes were drilled on the Float Creek zone. Also, new zones of molybdenum mineralization were located on Plug Creek, 300 metres west of Float Creek, in Hit Creek Canyon, 800 metres east of Float Creek and Red Mountain, 2000 metres northeast of Float Creek.

BIBLIOGRAPHY

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EMPR ASS RPT 709, 2741, 2878, 3094, 3275, 3370, 5948, 5974, 6345, 6355, 6759, 6999, 7557, 12798, 24684, 24819
EMPR EXPL 1977-E168; 1978-E176; 1979-184
EMPR GEM 1970-223; 1971-309
EMPR INF CIRC *1997-1, p. 27
EMPR PF (*Mustard, D.K. and Wong, R.H. (1976): Salal Creek Mineral Property; Verdstone Gold Corporation Website (Nov.1999): Salal Creek Property, 2 p.)
EMR MP CORP FILES (Norpax Nickel Mines Ltd., Purdex Minerals Ltd., Southwest Potash Corp.)
GSC OF 482
GSC P 75-1A, pp. 37-40
PERS COMM R. Pinsent, 1996
W MINER, Feb. 1979
WWW <http://www.verdstonegroup.com/verdstone/>
http://www.infomine.com/index/properties/SALAL_CREEK.html

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
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PAGE: 866
REPORT: RGEN0100

BIBLIOGRAPHY

*Stephens, G.C. (1972): Unpublished Ph.D. Thesis, Lehigh University
Chevron File

DATE CODED: 1985/07/24
DATE REVISED: 1997/03/26

CODED BY: GSB
REVISED BY: GP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 006**

NATIONAL MINERAL INVENTORY:

NAME(S): **STAN**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 01 N
LONGITUDE: 123 09 36 W
ELEVATION: 1250 Metres

NORTHING: 5547939
EASTING: 488553

LOCATION ACCURACY: Within 500M

COMMENTS: The approximate location of rock sample KSR-15, located near the southeast corner of the grid on the Stan 1 claim and 7 kilometres north-northwest of Daisy Lake (Assessment Report 20174).

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Bornite Sphalerite Pyrrhotite
ALTERATION: Actinolite Malachite
COMMENTS: Skarn mineralization is reported to occur but mineralogy is not specified.

ALTERATION TYPE: Skarn Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Stratabound Massive
CLASSIFICATION: Hydrothermal Epigenetic Skarn
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Greenstone
Andesite
Chlorite Schist
Sediment/Sedimentary
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Plutonic Rocks
GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1989
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 19.7000 Grams per tonne
Gold 9.1500 Grams per tonne
Copper 0.1400 Per cent
REFERENCE: Assessment Report 20174.

CAPSULE GEOLOGY

The Stan showing is situated north of Brandywine Creek on the southern slopes of Metal Dome, approximately 16 kilometres west of Whistler, British Columbia.

The Brandywine Creek region is underlain by Lower Cretaceous Gambier Group volcanic and sedimentary rocks which are preserved as a roof pendant, the Callaghan Creek roof pendant, within dioritic to granodioritic rocks of the Jurassic to Cretaceous Coast Plutonic Complex. The Stan property lies west of the Callaghan Creek roof pendant and is underlain primarily by a dioritic complex. However, andesitic greenstone outcrops on the property and is presumed to be Gambier Group. Pliocene Garibaldi Group basalt and rhyodacite flows and pyroclastic rocks crop out in the southwest.

Mineralization consists of pyrite, chalcopyrite, bornite, sphalerite, pyrrhotite and malachite as disseminations, massive sulphide bands and possibly skarn, all apparently hosted by sheared greenstone.

CAPSULE GEOLOGY

The best assay from 1988 was a 50-centimetre chip sample (Sample 18361) of fine-grained greenstone with stringy chalcopyrite, pyrite and bornite which graded 0.098 gram per tonne gold, 0.45 per cent copper and 9.2 grams per tonne silver (Assessment Report 18788). In 1989, grab sample KRS-15, from chlorite schist containing massive and disseminated pyrite, assayed 9.15 grams per tonne gold, 19.7 grams per tonne silver and 0.14 per cent copper (Assessment Report 20174).

Between 1991 and 1995, a number of soil geochemical sampling programs were carried out. In 1994, soil geochemistry samples yielded 0.41 gram per tonne gold, 0.12 per cent copper, 0.05 per cent lead, 0.02 per cent zinc and 5.6 grams per tonne silver (Assessment Report 23639). Anomalous gold values are associated with anomalous copper values. In 1995, similar results were obtained (Assessment Report 24218).

BIBLIOGRAPHY

EMPR ASS RPT *18788, *20174, 21596, 22447, 23196, 23639, 24218
EMPR FIELDWORK 1977, pp. 96-102
EMPR GEOLOGY 1977-1981, pp. 98-100
GSC OF 432
GSC P 75-1A, pp. 37-40

DATE CODED: 1991/07/29
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 007**

NATIONAL MINERAL INVENTORY:

NAME(S): **WREN, SPARROW, JAY,**
ROBIN, CROW, GL,
R

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J06E 092J07W

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 16 33 N
LONGITUDE: 123 00 28 W

NORTHING: 5569300

EASTING: 499446

ELEVATION: 1067 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of large geochemical anomaly 750 metres south of Rutherford
Creek (Assessment Report 18172).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Silica Pyrite
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Carbonaceous Argillite
Tuff
Monzonite
Meta Volcanic
Meta Sediment/Sedimentary
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges
Plutonic Rocks
RELATIONSHIP: Pre-mineralization
GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
YEAR: 1990
CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Gold
GRADE: 1.5000 Grams per tonne
REFERENCE: Assessment Report 20489.

CAPSULE GEOLOGY

The Wren property is situated along Rutherford Creek in the Pacific Ranges, ten kilometres to the south of the town of Pemberton on Highway 99.

A northwest trending roof pendant of metasedimentary and metavolcanic rocks of the Lower Cretaceous Gambier Group is encompassed by diorite of the Jurassic to Tertiary Coast Plutonic Complex. Metavolcanic tuff is reported to be the dominant rock type. Several northwesterly striking shear zones, up to 750 metres wide, cut across the area.

Pyrite with associated gold and silver were initially discovered within silicified areas of the shear zones and in quartz veins cutting carbonaceous argillite. Later drill holes cut volcanics and monzonite carrying pyrite, pyrrhotite, traces of chalcopyrite and narrow gold-bearing quartz veins. A sample of quartz vein within granitic rock assayed 1.5 grams per tonne gold (Assessment Report 20489).

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BIBLIOGRAPHY

EMPR ASS RPT 6976, 7648, 12223, *18172, *19494, *20489
EMPR EXPL 1978-E125; 1984-227
EMPR PF (*Prospectus, Castle Minerals Inc., 1988)
GSC OF 482
GSC P 75-1A, pp. 37-41
GSC SUM RPT 1917, pp. 12-23; 1924, pp. 76-99
Placer Dome File

DATE CODED: 1991/02/12
DATE REVISED: 1991/07/30

CODED BY: CID
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 008**

NATIONAL MINERAL INVENTORY:

NAME(S): **JERVIS INLET MOLY, MT. WELLINGTON**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 17 N
LONGITUDE: 123 55 48 W
ELEVATION: 1160 Metres

NORTHING: 5550688
EASTING: 433495

LOCATION ACCURACY: Within 1 KM

COMMENTS: Approximate location of the mineralization (Property File - Swanson, 1936).

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
ASSOCIATED: Feldspar Quartz
COMMENTS: Feldspar and molybdenite in coarse-grained clots in granodiorite.
ALTERATION: Limonite
COMMENTS: Oxidation of iron sulphides and sericite alteration has also been suggested.

ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Porphyry
TYPE: L08 Porphyry Mo (Climax-type)
SHAPE: Irregular
DIMENSION: 150 x 70 x 20 Metres
COMMENTS: Dimensions of the deposit.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Cretaceous-Tertiary

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Coarse Grained Biotite Granodiorite
Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Jervis Inlet molybdenite showing is located just southwest of McCannel Lake in the Sechelt Provincial Forest of the Pacific Ranges.

The showing is hosted by massive, coarse grained, biotite granodiorite of the Tertiary to Cretaceous Coast Plutonic Complex. Associated porphyritic dykes of unspecified composition cut the granodiorite.

Mineralization occurs principally as "spots" of coarse grained molybdenite and rusty feldspar which range in size from 1 to 30 centimetres. The proportion of molybdenite in these clots varies up to 50 per cent. Minor molybdenite also occurs with quartz as fracture-fillings in granodiorite. The deposit is said to measure approximately 150 metres by 20 metres by 70 metres with no indication as to shape. No estimation of grade or assay data are available.

BIBLIOGRAPHY

EMPR BULL 9-40, p. 49
EMPR PF (*Report by C.O. Swanson, 1936)
GSC P 75-1A, pp. 37-41

DATE CODED: 1991/02/18
DATE REVISED: 1991/03/12

CODED BY: CID
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 009**

NATIONAL MINERAL INVENTORY:

NAME(S): **NICHOL**, RAELODE

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 56 54 N
LONGITUDE: 123 21 41 W
ELEVATION: 1790 Metres

NORTHING: 5644142
EASTING: 474613

LOCATION ACCURACY: Within 500M

COMMENTS: Branch of Nichol Creek on Nichol 18 claim (Assessment Report 534).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite
ASSOCIATED: Quartz Clay Orthoclase
ALTERATION: Clay K-Feldspar Silica
ALTERATION TYPE: Argillic Potassic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au
COMMENTS: Mineralization occurs as veins and pods in a shear zone and fractures striking 045 to 060 degrees and steeply dipping.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Bridge River	Undefined Formation	
Upper Triassic	Cadwallader	Pioneer	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Sodic Granite
Hornblende Quartz Diorite
Volcaniclastic Andesite
Basalt

HOSTROCK COMMENTS: Basalt of the Garibaldi Group partially covers older rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE: Greenschist

CAPSULE GEOLOGY

The region in which the Nichol showing occurs is underlain mainly by intrusive rocks of the Jurassic to Tertiary Coast Plutonic Complex which here have intruded sedimentary and volcanic rocks of the Upper Triassic Pioneer Formation, Cadwallader Group. These rocks are overlain in part by basalt of the Pleistocene Garibaldi Group. Sodic granite which forms part of the Mississippian to Jurassic Bridge River Complex (Group) also underlies the area. The claims are underlain by sodic granite, hornblende quartz diorite and andesitic rocks. These rocks are cut by northwest striking, steeply dipping fractures and shears. Mineralization comprises chalcopyrite and molybdenite in quartz veins and veinlets in a shear zone. Wallrock alteration is dominantly argillic although some silicification and potassium feldspar alteration is also noted.

BIBLIOGRAPHY

EMPR ASS RPT *534
GSC OF 482

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/20

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 010**

NATIONAL MINERAL INVENTORY:

NAME(S): **BR, BR 4**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J13E 092J14W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 54 12 N
LONGITUDE: 123 30 05 W
ELEVATION: 1833 Metres

NORTHING: 5639195
EASTING: 464745

LOCATION ACCURACY: Within 500M
COMMENTS: Centre of BR 4 claim.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Bornite Chalcocite Pyrite

COMMENTS: Only minor amounts of molybdenite and pyrite have been identified.

ASSOCIATED: Quartz

ALTERATION: Chlorite Epidote Sericite K-Feldspar Limonite

Malachite Azurite Magnetite

ALTERATION TYPE: Propylitic Sericitic Potassic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork

CLASSIFICATION: Porphyry

TYPE: L04 Porphyry Cu ± Mo ± Au

SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Cretaceous-Tertiary

ISOTOPIC AGE: 55 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

Coast Plutonic Complex

LITHOLOGY: Biotite Granodiorite
Quartz Diorite
Quartz Monzonite
Gabbro
Hornblendite
Aplite
Intrusive Breccia
Feldspar Porphyry Dike
Andesite Dike
Aplite Dike

HOSTROCK COMMENTS: The Lord pluton of the Coast Plutonic Complex is dated at 55 Ma (Geological Survey of Canada Open File Map 482).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The BR showing is located northwest of Salal Creek at the headwaters of Bridge River. The area is underlain mainly by intrusive rocks of the Lord Pluton, an Early Tertiary intrusive complex of the Coast Plutonic Complex. Pleistocene volcanic rocks of the Garibaldi Group overlie the pluton, locally.

The dominant rock types on the BR property are quartz monzonite, biotite granodiorite and quartz diorite with minor amounts of gabbro, hornblendite and intrusive breccia. Dykes of aplite, andesite, feldspar porphyry and gabbro also cut older intrusive rocks.

Sulphide mineralization, mainly chalcopyrite and molybdenite, is strongly fracture controlled, confined to veins and veinlets mainly within quartz monzonite. Veins commonly strike north and dip 50 to 70 degrees east. Other sulphide minerals present include bornite, chalcocite and pyrite; oxidation products of sulphides include malachite, azurite and tenorite.

Wallrock alteration is weakly propylitic, with sericite and potassium feldspar associated with quartz and sulphides in, and adjacent to, veins.

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BIBLIOGRAPHY

EMPR AR 1961-25
EMPR ASS RPT 2499, 2500, *8804
EMPR GEM 1970-222; 1971-310
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/20

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 011**

NATIONAL MINERAL INVENTORY: 092J14 Cu1

NAME(S): **GRISWOLD**, RUSSNOR, MEL

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J14W
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 54 54 N
LONGITUDE: 123 25 29 W
ELEVATION: 1525 Metres

NORTHING: 5640459
EASTING: 470143

LOCATION ACCURACY: Within 500M

COMMENTS: The showing is located near headwaters of Thunder Creek, about forty kilometres west of the town of Gold Bridge.

COMMODITIES: Copper Silver Gold Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Molybdenite Pyrite
ASSOCIATED: Quartz
ALTERATION: Chlorite Sericite K-Feldspar Malachite Azurite
ALTERATION TYPE: Propylitic Potassic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Pleistocene
Mesozoic-Cenozoic

GROUP

Garibaldi

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granite
Quartz Diorite
Quartz Leucocratic Porphyry
Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Channel

YEAR: 1971

COMMODITY

Copper

GRADE

0.8000

Per cent

COMMENTS: Sampled over 25 metres in the vicinity of old adit.

REFERENCE: Assessment Report 3320.

CAPSULE GEOLOGY

The Griswold copper showing occurs within a quartz diorite to granite intrusion of the Jurassic to Tertiary Coast Plutonic Complex, later intruded by leucocratic quartz porphyry and partially covered at higher elevations by basalt of the Pleistocene Garibaldi Group.

Mineralization consists of disseminated chalcopyrite, bornite and pyrite with trace molybdenite within a breccia zone. A 25-metre channel sample taken across this zone in the vicinity of an old adit developed in the breccia, contained 0.80 per cent copper with only trace molybdenum and precious metal values (Assessment Report 3320). Secondary minerals include malachite and azurite.

Wallrock alteration associated with fractures and the breccia comprises chlorite, sericite and some potassium feldspar.

BIBLIOGRAPHY

EMPR AR 1929-234, 1930-202
EMPR ASS RPT *3320
EMPR GEM 1970-223; 1971-311; 1972-282
EMPR PF (Report J.P. Elwell, 1970)
GSC OF 482

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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PAGE: 876
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT 1928, p. 92

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/05

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 012**

NATIONAL MINERAL INVENTORY: 092J3 Au3

NAME(S): **NORHAIR**, WARMAN, DISCOVERY,
MANIFOLD, C, CALLAGHAN

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

Underground

MINING DIVISION: Vancouver

LATITUDE: 50 06 52 N
LONGITUDE: 123 06 13 W
ELEVATION: 853 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5551360
EASTING: 492592

LOCATION ACCURACY: Within 500M

COMMENTS: 2800 Level portal, on the western slopes of Mount Sproatt, 1 kilometre east of Callaghan Creek, 45 kilometres north of Squamish (Assessment Report 18402).

COMMODITIES: Gold Silver Lead Zinc Copper
Cadmium

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite Tetrahedrite
Argentite Pyrargyrite Electrum Gold Stromeyerite

COMMENTS: Trace gold and stromeyerite.

ASSOCIATED: Quartz Calcite

ALTERATION: Biotite Chlorite Sericite

ALTERATION TYPE: Biotite Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia Podiform Massive
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

SHAPE: Tabular

MODIFIER: Faulted

DIMENSION: 1200 x 300 x 7 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: The vein zone, 1 to 7 metres wide, has a steep southwest dip.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP
Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Andesitic Pyroclastic Breccia
Andesitic Lapilli Tuff

HOSTROCK COMMENTS: Callaghan Creek pendant (Gambier Group rocks) within the Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

COMMENTS: Lower greenschist facies.

Plutonic Rocks

RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: NORHAIR

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1986

QUANTITY: 59071 Tonnes

COMMODITY

GRADE

Silver	26.7300	Grams per tonne
Gold	9.0800	Grams per tonne
Lead	2.0000	Per cent

COMMENTS: Approximately 2 per cent combined lead-zinc.

REFERENCE: Canadian Mines Handbook 1986-87, page 285.

CAPSULE GEOLOGY

The Northair mine is located in a Lower Cretaceous roof pendant of Gambier Group volcanic and sedimentary rocks within the southern Coast Plutonic Complex. This particular pendant, known as the Callaghan Creek pendant, is comprised of variably metamorphosed northwest trending volcanic and volcanically-derived sedimentary rocks, commonly characterized by a strong northwest foliation. The pendant rocks exhibit regional lower greenschist facies metamorphism, except near their contact with intrusive bodies, where they have

CAPSULE GEOLOGY

locally undergone contact metamorphism.

The plutonic rocks in the area have a compositional range which varies from quartz monzonite to diorite. The plutonic rocks vary in age from Early Tertiary to Late Jurassic. Pendant contacts with adjacent plutonic rocks are often sharp and commonly marked by narrow shear zones which are parallel to the foliation within the pendant rocks.

Previous mapping in the Northair mine area has divided the geology of the 5000-metre thick Gambier Group into two major units. Unit 1 is a lower, volcanic-derived, sediment-rich unit characterized by well-sorted wacke with low fragment (clast) variation and minor volcanic tuffs, indicating a relatively long depositional history. Sedimentary features such as graded bedding and crossbedding are present with indicated tops to the northeast. Thin magnetite beds are locally present in wacke sediments. The stratigraphy appears to have a north to northwest strike and a steep dip to the northeast.

Unit 2 is comprised of a volcanic tuff of predominantly andesitic composition which stratigraphically overlies unit 1. Most of the southern contact between these two units is a fault which locally is occupied by a Tertiary felsic dyke. The upper 2500 metres of unit 2 is characterized by a high variability of clast size (ash tuff to block breccia) representing a rapid depositional environment. Depositional cycles are evident by the northeastward and southward fining of these fragmentals. Locally emergent conditions are indicated by features such as hematitic clasts which are well-rounded and similar in size. This is found particularly in the upper portion of the stratigraphy (northwest part of the property).

A proximal environment is indicated for the lower 1000 metres of unit 2, which is characterized by the absence of sediments, almost chaotic and locally clast-supported angular block and ash tuffs, volcanic breccias and lapilli tuffs which represent a brief, rapid depositional history. The significance of the lower unit lies in the fact that it hosts more of the ore.

Recent workers have interpreted the Gambier Group rocks on the property as a homoclinal succession (Assessment Report 18402). No minor fold structures have been observed. The bedding varies in strike from 160 to 200 degrees and dips from 45 to 89 degrees east. A pervasive cleavage is moderately well-developed and is common in the volcanic rocks; it has a strike of 160 to 180 degrees and is steeply inclined. Rock analyses show that the volcanics are calc-alkaline basalt to dacite in composition, with the majority of the samples falling into the andesite to dacite fields (Assessment Report 18402).

Host rocks to the ore deposits at the Northair mine are andesitic pyroclastic breccia and lapilli tuffs. The ore deposits are comprised of 3 or 4 steeply dipping, fault-dismembered tabular zones, 1 to 7 metres wide and approximately 1200 metres long. They dip steeply southwest and are known to extend downdip at least 300 metres. The four mineralized segments are separated by north trending faults and are named from south to north as: Manifold, Warman, C and Discovery.

The mineralized segments are generally small bodies. The sulphides comprise pyrite, galena, sphalerite and minor chalcopyrite disseminations, veins and locally discontinuous, banded segregations in quartz-calcite gangue. Anastomosing veins of pyrite, galena and sphalerite are common; often they are irregular sulphide pods and lenses, separated by barren, brecciated country rock (horses). Locally, spectacular ribbon-banded, quartz-chlorite-pyrite veins (with minor lead-zinc sulphides) are present in the ore zone. The vein zone which comprises most of the ore, as a whole has a steep southwest dip which is broadly discordant to the perceived northeast dip of the volcanic stratigraphy. A general pattern of sulphide mineralogy indicates silver-rich, base metal-poor mineralization in the Manifold zone, progressing to more base metals and less silver toward the northwest (through Warman, C and Discovery zones). The width of the mineralization increases from the south to the northwest. Local banded, massive sphalerite and galena were reported at the Discovery zone. Other minerals reported at the mine are tetrahedrite, argentite, bornite, pyrargyrite and electrum with trace amounts of gold and stromeyerite (Geology in British Columbia 1977-1981, page 100).

At the northwest end of the "Northair horizon" (C and Discovery zones), where highest base metal values are indicated, the tested extent of mineralization is essentially less than 150 metres below surface. This locality was considered to have the best chance for massive sulphides discovery because of reported local occurrences of banded sulphides and shallow testing by previous exploration (Assessment Report 18402).

A consistent black, biotite/chlorite hydrothermal alteration

CAPSULE GEOLOGY

zone is closely associated with the mineralization. This alteration forms an envelope to the sulphide vein zone, and is in some cases asymmetrical; more often it appears to be broadest in the structural hanging wall. The biotite content increases toward the sulphide vein system; it is a pervasive, fine-grained overprint of dark green chlorite. A gradation exists from a dark green, pervasive chlorite-altered tuff to a black, biotite-dominant tuff, most strongly altered nearest the mineralization. The biotite forms 6 to 7-millimetre clumps or aggregates in the altered host rock very close to, and within the mineralized vein system. Pervasive sericite alteration is also evident, but it appears to be an earlier event, and much more extensive; it is not directly related to the mineralization. Near the sulphide vein system within the alteration is a quartz-calcite stockwork which contains weak base metal sulphides.

A long standing controversy has existed regarding the origin of the Northair mineralization. Two views are that the sulphides represent (1) volcanogenic massive sulphide mineralization or (2) that it is vein-type mineralization, related either to a synvolcanic hydrothermal system, or to nearby intrusions of the Coast Plutonic Complex; the latter genesis is proposed (Assessment Report 18402).

Production at the Northair mine began in 1974 and was suspended in mid-July 1982 due mainly to low grades and low gold prices.

Indicated reserves are 59,071 tonne grading 26.73 grams per tonne silver, 9.08 grams per tonne gold and 2 per cent combined lead-zinc (Canadian Mines Handbook 1986-87, page 285).

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EMPR GEM 1971-306; 1972-280,281; 1973-245-248; 1974-200-202
EMPR GEOLOGY 1977-1981, pp. 98-101
EMPR MAP 65 (1989)
EMPR MINING 1975-1980, pp. 39,40; 1981-1985
EMPR OF 1992-1
EMPR PF (Northair Mines Ltd. 1974, 1980 Annual Report; Longitudinal sections, topography map, claim map, trench map; L.J. Manning & Associates (1974): Preliminary Feasibility Study for Northair Mines Ltd., (1972): Report on the Brandywine Silver Property; Northair Mines Ltd. (1977): Report for the First Half Ending Aug.31, 1977; Bacon, Donaldson & Associates Ltd. (1974): Beneficiation of Northair Mines Ltd.; Excerpt description from the 80th AGM of the CIM, April 23-27, 1978)
EMR MIN BULL MR 233 B.C. 151
EMR MP CORPFILE (Northair Mines Ltd.)
GSC OF 482
GSC P 75-1 Part A, pp. 37-40
CIM March 1978, p. 129
CMJ April 1975, pp. 79-82; March 1977, p. 51
GCNL #211,#187, 1974; #212,#176, 1975; #71,#67,#10, 1976; #110,#122, 1977; #210,#111,#34, 1978; #127,#107,#70,#33, 1979; #158,#214,#36, #125, 1980; #222,#115, 1981; #208,#132, 1982; #124, 1983
N MINER July 31, Sept.18, 1975; Jan.26, Mar.2, June 15, July 6, 1978; Feb.22, June 14, 1979; Mar.5,19, Sept.24, 1981; Mar.4, July 1, Nov.4, 1982; July 7, 1983
W MINER Vol.47, No.9, (1974), pp. 56-58; April 1976; April, July, 1979; July 1982
Little, L.M. (1974): The Geology and Mineralogy of the Brandywine Property Lead-Zinc-Gold-Silver Deposit, Southwestern British Columbia, Unpub. B.Sc. Thesis, University of British Columbia
Miller, J.H.L. (1979): Geology of the Central Part of the Callaghan Creek Pendant, NTS 92J/2,3, Unpub. M.Sc. Thesis, University of British Columbia
Falconbridge File
EMPR OF 1998-10

DATE CODED: 1985/07/24
DATE REVISED: 1992/01/14

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 013**

NATIONAL MINERAL INVENTORY:

NAME(S): **KMA, RAINBOW**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 09 N
LONGITUDE: 123 00 18 W
ELEVATION: 1545 Metres

NORTHING: 5559293
EASTING: 499643

LOCATION ACCURACY: Within 500M

COMMENTS: 1982 trenched area (Assessment Report 18804).

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Sphalerite Covellite Chalcopyrite
ASSOCIATED: Quartz Barite
ALTERATION: Quartz Sericite Goethite
ALTERATION TYPE: Silicific'n Sericitic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Shear
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE

Lower Cretaceous
Jurassic-Cretaceous

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Chlorite Sericite Schist
Chlorite Schist
Argillite
Andesite Crystal Tuff
Felsic Tuffaceous Sediment/Sedimentary
Cherty Mudstone
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

Plutonic Rocks

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1983

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver	6.5000	Grams per tonne
Gold	12.9000	Grams per tonne
Copper	0.0800	Per cent
Zinc	0.1300	Per cent

COMMENTS: Best assay results of grab samples taken from the Trench zone in 1983.

REFERENCE: Assessment Report 18804.

CAPSULE GEOLOGY

The KMA showing is situated on the eastern slopes of Rainbow Mountain at the headwaters of Nineteen Mile Creek, east of Pemberton.

The claims lie along the western edge of a northwest trending roof pendant composed of metavolcanic rocks and minor argillaceous metasediments of the Lower Cretaceous Gambier Group. Pendant rocks dip moderately to steeply to the east and is interpreted to be an overturned sequence. The pendant is 4 to 5 kilometres wide, nearly 15 kilometres long and enclosed by the Jurassic to Cretaceous Coast Plutonic Complex.

The west side of the property is underlain by medium to coarse grained diorite of the Coast Plutonic Complex. Massive andesitic crystal tuffs crop out on the eastern portion of the property. The contact between diorite and andesitic tuffs is marked by a thin zone of felsic tuffaceous sediments and cherty mudstones.

CAPSULE GEOLOGY

This contact is also marked by a northwest trending shear zone composed of chlorite schists.

The KMA showing consists of several types of mineralization. In the western parts of the property, quartz sweats and fracture-filling are mineralized with disseminated pyrite hosted in argillite. The Gossan Gulch area in the north and central part of the property averages 100 metres wide and 5 kilometres length. The hostrocks are sheared and pyritic sericite-chlorite schists, locally strongly oxidized into widespread goethite gossan. Several grab samples taken in 1982 by Stackpool Resources were enriched in barium, silver and gold (Assessment Report 21616). Sample 230003 yielded 76 per cent barium. Sample 230000 yielded 0.21 gram per tonne gold and 10.97 grams per tonne silver.

The Trench zone area has been the focus of most exploration activity. Trenching has exposed a shear zone in quartz sericite and chlorite schists which are locally silicified. The chlorite schist hosts a mineralized quartz stockwork. A silvery, sericite schist with finely disseminated pyrite has yielded consistent gold values of about 0.4 gram per tonne (Assessment Report 21616). A 1983 sample of siliceous sericite schist with sphalerite, covellite, pyrite and chalcopyrite in quartz veinlets assayed 12.9 grams per tonne gold, 6.5 grams per tonne silver, 0.08 per cent copper and 0.13 per cent zinc (Assessment Report 18804). Samples taken in 1988 contained up to 0.4 gram per tonne gold, 17.6 grams per tonne silver, 0.94 per cent zinc, 0.42 per cent lead and 0.16 per cent copper (Assessment Report 18804).

Anomalous base metal values up to 0.12 per cent zinc and 0.04 per cent lead are also present in pyritic quartz 'sweats' within argillite located west of the trenched area (Assessment Report 18804).

BIBLIOGRAPHY

EMPR ASS RPT *18804, 21616
GSC OF 482

DATE CODED: 1991/03/08
DATE REVISED: 1997/06/30

CODED BY: CID
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 014**

NATIONAL MINERAL INVENTORY:

NAME(S): **AUTUMN**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J13W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 55 29 N
LONGITUDE: 123 55 05 W

NORTHING: 5641855
EASTING: 435477

ELEVATION: 2130 Metres

LOCATION ACCURACY: Within 1 KM

COMMENTS: Foot of Stanley Smith glacier, 17 kilometres southwest of the south end of Chilko Lake.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Molybdenite Pyrite

ASSOCIATED: Quartz

ALTERATION: Silica

ALTERATION TYPE: Silicific'n

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated

CLASSIFICATION: Porphyry

TYPE: L04 Porphyry Cu ± Mo ± Au

DIMENSION: 2000 x 500 Metres

COMMENTS: Area of mineralization.

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Cretaceous-Tertiary

ISOTOPIC AGE: 55 Ma

DATING METHOD: Potassium/Argon

MATERIAL DATED: Biotite

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

HOSTROCK COMMENTS: Mineralization is within the Lord River pluton of Eocene age (GSC Open File Map 482).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Autumn showing is located at the foot of the Stanley Smith glacier, about 17 kilometres southwest of the south end of Chilko Lake. The area is underlain by quartz diorite of the Early Tertiary Lord River pluton of the Coast Plutonic Complex. Much of the region in which the showing occurs is ice covered.

Chalcopyrite, bornite, molybdenite, pyrite and magnetite have been recognised within silicified rocks over an area approximately 2 by 0.5 kilometres.

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EMPR GEM *1971-310
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/05

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 015**

NATIONAL MINERAL INVENTORY:

NAME(S): **FALL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 39 38 N
LONGITUDE: 123 29 28 W
ELEVATION: 1097 Metres

NORTHING: 5612194
EASTING: 465288

LOCATION ACCURACY: Within 500M

COMMENTS: 1974 drillhole collar (Assessment Report 5216).

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite Pyrite
COMMENTS: Only sparse pyrite associated with molybdenite in quartz-filled fractures.

ASSOCIATED: Magnetite Quartz

ALTERATION: Kaolinite

COMMENTS: Alteration is only weakly developed.

ALTERATION TYPE: Argillic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork
CLASSIFICATION: Porphyry
TYPE: L05 Porphyry Mo (Low F- type)
SHAPE: Irregular

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Lower Cretaceous
Pliocene
Mesozoic-Cenozoic

GROUP

Fire Lake
Garibaldi

FORMATION

Unnamed/Unknown Formation
Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite
Alaskite
Andesite
Porphyritic Basalt

HOSTROCK COMMENTS: Andesitic volcanic rocks are inferred to belong to the Lower Cretaceous Fire Lake Group and porphyritic basalts to the Garibaldi Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Fall molybdenite showing occurs to the west of Lillooet River, about one kilometre south of the mouth of Salal Creek in the Pacific Ranges. The region is underlain by plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex, roof pendants of rocks of Lower Cretaceous Gambier Group (or its equivalent, the Fire Lake Group) and Pliocene to Recent volcanic rocks of the Garibaldi Group.

The Fall property is underlain mainly by quartz monzonite and alaskite although deformed andesitic rocks of the Fire Lake Group are preserved as roof pendants within plutonic rocks. Parts of the property are covered by porphyritic basalt of the Garibaldi Group.

Mineralization consists of molybdenite in fractures associated with quartz and sparse pyrite. Weak kaolinite alteration is common adjacent to mineralized fractures.

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EMPR ASS RPT *5216
EMPR GEM 1971-308; 1972-282; 1973-251; 1974-204
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N MINER Aug.21, 1975, p. 3

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/09

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 017**

NATIONAL MINERAL INVENTORY: 092J6 Au1

NAME(S): **PAKA**, PAKA 3

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J06E 092J07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 09 N
LONGITUDE: 123 04 35 W
ELEVATION: 1370 Metres

NORTHING: 5570415
EASTING: 494558

LOCATION ACCURACY: Within 500M
COMMENTS: Centre of Paka 3 claim.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Pyrite Silica
ALTERATION TYPE: Silicific'n Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Meta Sediment/Sedimentary
Siltstone
Diorite
Quartzite
Andesite
Quartz Diorite
Alaskite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
Plutonic Rocks
RELATIONSHIP:
PHYSIOGRAPHIC AREA: Pacific Ranges
GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1981
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 10.2900 Grams per tonne
Gold 0.2700 Grams per tonne
Copper 0.1200 Per cent

REFERENCE: EMPR CORPFILE - Bern Resources Ltd.

CAPSULE GEOLOGY

The property is located between Rutherford and Torrent creeks about 12 kilometres west southwest of Pemberton in an area of rugged topography of the Pacific Ranges.

The eastern part of the property is underlain by metamorphosed andesite and sedimentary rocks of the Lower Cretaceous Gambier Group; the western part is underlain by quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. A southwest striking fault forms the contact between metasedimentary rocks on the east and hydrothermally altered quartz diorite on the west.

Pyrite and chalcopyrite mineralization with associated gold and silver values occur within a pyritic and silicified zone near the quartz diorite-metasedimentary contact. The best chip sample obtained in 1981 from this zone contained 0.27 gram per tonne gold, 10.29 grams per tonne silver and 0.12 per cent copper (Energy, Mines and Resources Canada MP CORPFILE - Bern Resources Ltd., 1981)

BIBLIOGRAPHY

EMPR ASS RPT 9680, *10540, 10597

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 886
REPORT: RGEN0100

BIBLIOGRAPHY

EMR MP CORPFILE (*Bern Resources Ltd., 1981)
GSC OF 482
GSC P 75-1A, pp. 37-41
GCNL #109, 1982
PR REL Castle Minerals Inc., Jan. 29, 1988

DATE CODED: 1989/12/19
DATE REVISED: 1991/02/08

CODED BY: SNP
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 018**

NATIONAL MINERAL INVENTORY:

NAME(S): **SKI**, GM, SPECTRUM

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 24 58 N
LONGITUDE: 123 10 05 W
ELEVATION: 2100 Metres

NORTHING: 5584911
EASTING: 488060

LOCATION ACCURACY: Within 500M

COMMENTS: The location is for molybdenite-chalcopyrite mineralization at the edge of an icefield (Assessment Report 8220).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT:	Chalcopyrite	Molybdenite	Pyrite
ASSOCIATED:	Quartz		
ALTERATION:	Malachite	Silica	Sericite
ALTERATION TYPE:	Oxidation	Silicific'n	Sericitic
MINERALIZATION AGE:	Unknown		

DEPOSIT

CHARACTER:	Shear	Disseminated	Vein
CLASSIFICATION:	Hydrothermal	Epigenetic	Porphyry
SHAPE:	Irregular		
MODIFIER:	Sheared		

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cenozoic	Garibaldi	Unnamed/Unknown Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Hornblende Granodiorite
Microdiorite
Quartz Sericite Schist
Aplite
Hornblende Feldspar Porphyry
Basalt Dike

HOSTROCK COMMENTS: Basalt dykes are probably related to the Pliocene-Recent Garibaldi Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Ski, or Spectrum, property is located above treeline in the Pacific Ranges, southwest of Ryan River to the northwest of Pemberton. The area is underlain mainly by plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex.

Hornblende granodiorite in the area has been cut by a northwest trending shear zone which hosts disseminated pyrite and minor chalcopyrite. Due to silicification and sericitization of the granodiorite before deformation, the shear is now represented as a zone of quartz-sericite schist. Mapping of this zone has determined it to be about one kilometre wide and over five kilometres long. Small bodies of microdiorite and basaltic dykes, which are probably related to the Pliocene to Recent Garibaldi Group, postdate deformation and mineralization.

On the eastern side of the shear zone, partially obscured by an icefield, is molybdenite-chalcopyrite mineralization in quartz veins and veinlets within granodiorite.

BIBLIOGRAPHY

EMPR ASS RPT 4664, *8220, 11410
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/09

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 019**

NATIONAL MINERAL INVENTORY:

NAME(S): **TMC 1**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 51 N
LONGITUDE: 123 06 48 W
ELEVATION: 1040 Metres

NORTHING: 5555037
EASTING: 491903

LOCATION ACCURACY: Within 500M
COMMENTS: Sample R8b (Assessment Report 5225).

COMMODITIES: Copper Silver Gold Zinc

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Nature of mineralization is not specified.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Andesite
Quartz Diorite

HOSTROCK COMMENTS: Most of the area is underlain by volcanic rocks of the Callaghan Creek roof pendant of the Lower Cretaceous Gambier Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier	Plutonic Rocks
METAMORPHIC TYPE: Regional	RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1974
SAMPLE TYPE: Grab	
<u>COMMODITY</u>	<u>GRADE</u>
Silver	15.9000 Grams per tonne
Gold	0.1600 Grams per tonne
Copper	0.8300 Per cent

COMMENTS: Analysis of sample R8b.
REFERENCE: Assessment Report 5225.

CAPSULE GEOLOGY

The TMC claims occur within the Pacific Ranges to the north of the Pemberton-Squamish highway, in an area underlain mainly by Lower Cretaceous Gambier Group andesitic rocks of the Callaghan Creek roof pendant. Minor amounts of quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex intrude the Gambier Group in the area of the showing.

Mineralization has only been recognised on the TMC 1 claim where unspecified copper, silver and zinc minerals occur in fractures 16 to 20 centimetres wide and with no apparent continuity.

BIBLIOGRAPHY

EMPR ASS RPT *5225
EMPR GEM 1974-202
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/09

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 020**

NATIONAL MINERAL INVENTORY:

NAME(S): **KAY**, KAY 7-10

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 46 N
LONGITUDE: 123 07 56 W
ELEVATION: 685 Metres

NORTHING: 5549325
EASTING: 490543

LOCATION ACCURACY: Within 500M

COMMENTS: Common corner post of Kay 7,8,9,10 claims.

COMMODITIES: Lead Zinc Copper

MINERALS

SIGNIFICANT: Galena Sphalerite Chalcopyrite

ASSOCIATED: Quartz Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	

LITHOLOGY: Andesite
Basaltic Dike

HOSTROCK COMMENTS: Volcanic rocks are part of the Callaghan Creek roof pendant.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Kay showing is located within the Callaghan Creek roof pendant, an assemblage of dominantly volcanic rocks of the Lower Cretaceous Gambier Group, preserved within the Jurassic to Tertiary Coast Plutonic Complex. The property is underlain mainly by andesitic volcanic rocks which have been cut by basaltic dykes. Mineralization consists of galena, sphalerite and minor chalcopyrite within quartz-carbonate veinlets and in shear zones within the andesitic rocks.

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EMPR EXPL 1976-E121, 1979-182,183
EMPR FIELDWORK 1977, pp.96-102
EMPR GEM 1973-244, *1974-199

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/11

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 021**

NATIONAL MINERAL INVENTORY: 092J3 Au3,Ag1

NAME(S): **BRANDYWINE NO. 1 ADIT**, QUARTZ TUNNEL, SAN FRANCISCO,
 BRANDY

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092J03E
 BC MAP:
 LATITUDE: 50 03 32 N
 LONGITUDE: 123 08 10 W
 ELEVATION: 580 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: Location of adit (Assessment Report 20047, Figure 5).

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5545187
 EASTING: 490257

COMMODITIES: Gold Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite
 ASSOCIATED: Quartz
 ALTERATION: Quartz Pyrite Pyrolusite
 ALTERATION TYPE: Silicific'n Pyrite Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
 CLASSIFICATION: Hydrothermal Epigenetic
 SHAPE: Tabular
 DIMENSION:
 COMMENTS: A one metre wide mineralized fracture.
 STRIKE/DIP: 177/80W TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Diorite
 Volcanic
 Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Plutonic Rocks
 PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
 YEAR: 1974
 CATEGORY: Assay/analysis
 SAMPLE TYPE: Drill Core

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	27.4000	Grams per tonne
Gold	0.6900	Grams per tonne
Copper	0.1100	Per cent
Lead	0.3300	Per cent
Zinc	2.0800	Per cent

 COMMENTS: Drill hole QTX1, 0.62 metre intesection.
 REFERENCE: Assessment Report 5404.

CAPSULE GEOLOGY

The Brandywine Number 1 Adit (Quartz Tunnel) is situated along the south side of Brandywine Creek, approximately three kilometres northwest of Brandywine Falls in the Pacific Ranges. The prospect is underlain by diorite of the Jurassic to Tertiary Coast Plutonic Complex, outcropping along the western contact with the Callaghan Creek roof pendant of Lower Cretaceous Gambier Group volcanic and sedimentary rocks. A one-metre wide mineralized fissure cuts the diorite body, striking 177 degrees and dipping 80 degrees west. The fissure contains narrow bands and stringers of quartz which are mineralized with streaks and disseminations of pyrite, sphalerite, galena and occasional chalcopyrite. Diorite wallrock enclosing the quartz stringers is pyritic and contains local streaks of sphalerite. The fissure walls are locally coated with pyrolusite. A grab sample from 10 tonnes of sorted material assayed 1.37 grams per tonne gold, 96 grams per tonne silver, 12 per cent zinc,

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CAPSULE GEOLOGY

0.3 per cent copper and 1 per cent lead (Property File - O'Grady, 1936). The best drill hole intersection (DDH QTX1, 1974) assayed 0.69 grams per tonne gold, 27.4 grams per tonne silver, 2.08 per cent zinc, 0.33 per cent lead and 0.11 per cent copper over 0.62 metres of (Assessment Report 5404).

BIBLIOGRAPHY

EMPR AR 1925-A300,; 1926-A331; 1927-C365; 1929-C398; 1934-F13
EMPR ASS RPT 3371, *5404, 7389, 7390, 9404, 19433, 20047
EMPR BULL 1 (1932), p. 144
EMPR EXPL 1976-E121; 1979-182
EMPR FIELDWORK 1977, pp. 96-102
EMPR GEM 1970-231; 1971-306
EMPR PF (*O'Grady, B.T. (1936): Special Report for the Minister of
Mines Annual Report for 1936)
GSC P 75-1A, pp. 37-40
GCNL #127,#233, 1979; #93,#103, 1980; #122, 1984
N MINER Mar.4, 1982
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/29

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092JW 021

MINFILE NUMBER: **092JW 022**

NATIONAL MINERAL INVENTORY: 092J3 Au3,Ag1

NAME(S): **BRANDYWINE NO. 2 ADIT**, BRANDY

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 03 24 N
LONGITUDE: 123 07 55 W
ELEVATION: 550 Metres

NORTHING: 5544940
EASTING: 490555

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 365 metres southeast of the Brandywine No. 1 Adit (092JW 021) (Property File - O'Grady, 1936).

COMMODITIES: Silver Gold Zinc

MINERALS

SIGNIFICANT: Pyrite Sphalerite
ASSOCIATED: Quartz
ALTERATION: Quartz Chlorite
ALTERATION TYPE: Silicific'n Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION:
COMMENTS: Shears associated with mineralization.

STRIKE/DIP: 150/70W

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Gambier Unnamed/Unknown Formation

LITHOLOGY: Chlorite Schist
Sericite Schist
Greenstone
Felsic Porphyry Dike
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1936

COMMODITY	GRADE	
Silver	37.7000	Grams per tonne
Gold	0.3400	Grams per tonne
Zinc	10.5000	Per cent

COMMENTS: Selected sample from adit.
REFERENCE: Property File - O'Grady, B.T.

CAPSULE GEOLOGY

The Number 2 adit is located along the south side of Brandywine Creek approximately three kilometres northwest of Brandywine Falls in the Pacific Ranges.

The showing lies along the western edge of the Callaghan Creek roof pendant comprising Lower Cretaceous Gambier Group volcanic and sedimentary rocks in contact with a dioritic phase of the Jurassic to Tertiary Coast Plutonic Complex. Felsitic porphyry dykes which intrude Gambier Group rocks are probably later than the diorite pluton.

The adit was driven in chlorite schist where scattered streaks of pyrite and sphalerite occur in somewhat silicified country rocks, associated with shear planes striking 150 degrees and dipping 70 degrees southwest. Approximately 60 metres southwest of the adit, a quartz lens, up to 1.5 metres wide, is hosted by sericite schist. A selected sample from the adit assayed 0.34 grams per tonne gold, 37.7 grams per tonne silver and 10.5 per cent zinc (Property File -

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CAPSULE GEOLOGY

O'Grady, 1936).

BIBLIOGRAPHY

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EMPR PF (*O'Grady, B.T. (1936): Special Report for the Minister of
Mines Annual Report for 1936)
GSC OF 482
GSC P 75-1A, pp. 37-40
GCNL #233, 1979; #93, 1980; #122, 1984
N MINER Mar.4, 1982
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/29

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 023**

NATIONAL MINERAL INVENTORY:

NAME(S): **DISCON**, DISC, LES

MINING DIVISION: Vancouver

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092J03E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 26 N
 LONGITUDE: 123 03 51 W
 ELEVATION: 975 Metres

NORTHING: 5548701
 EASTING: 495410

LOCATION ACCURACY: Within 500M

COMMENTS: Location of grid origin (Assessment Report 11127).

COMMODITIES: Silver Copper Gold Zinc Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Argentite Covellite Bornite Sphalerite
 Pyrrhotite Molybdenite

COMMENTS: Sphalerite is inferred from hydrozincite. Molybdenite is inferred from molybdenum values.

ASSOCIATED: Quartz Pyrite Muscovite Chlorite
 ALTERATION: Silica Chlorite Sericite Hydrozincite Malachite

ALTERATION TYPE: Carbonate Azurite Propylitic Sericitic Oxidation Carbonate
 MINERALIZATION AGE: Silicific'n Unknown

DEPOSIT

CHARACTER: Vein Shear Massive
 CLASSIFICATION: Hydrothermal Epigenetic Replacement
 TYPE: I06 Cu±Ag quartz veins I05 Polymetallic veins Ag-Pb-Zn±Au
 DIMENSION: 25 x 2 Metres STRIKE/DIP: 320/75E TREND/PLUNGE:
 COMMENTS: Sulphide mineralization occurs as shear-hosted veins, stringers and sulphide-rich laminae parallel to bedding or layering, over 2 to 3 metres widths and a strike length of 25 metres.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Chlorite Muscovite Schist
 Greenstone
 Pyroclastic Andesite
 Pyroclastic Dacite
 Argillite
 Limestone
 Phyllite
 Agglomerate

HOSTROCK COMMENTS: Hostrocks are part of the Callaghan Creek roof pendant.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
 TERRANE: Gambier Plutonic Rocks
 METAMORPHIC TYPE: Regional RELATIONSHIP:
 GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1981
 SAMPLE TYPE: Grab
 COMMODITY GRADE
 Silver 20.5000 Grams per tonne
 Gold 1.2400 Grams per tonne
 Copper 3.1000 Per cent
 Molybdenum 0.0300 Per cent
 COMMENTS: Silver and gold from a grab sample of sulphide-rich material. Copper and molybdenum are the average of other chip samples.
 REFERENCE: Assessment Report 11127.

CAPSULE GEOLOGY

The Discon showing is located 500 metres north of Highway 99 on the lower slopes of Mount Sproatt, and 8.5 kilometres west of Whistler.
 The Discon showing was staked and explored in 1979 and 1981 by

CAPSULE GEOLOGY

Crack Resources. In 1990, L. Demczuk staked the Les claims over the lapsed Discon claims.

The Discon showing occurs in the Pacific Ranges of the Coast Crystalline Belt. The area is underlain by Lower Cretaceous Gambier Group volcanic and sedimentary rocks of the Callaghan Creek roof pendant. This roof pendant hosts a number of sulphide occurrences with precious metals, including the former Northair producer (092JW 012).

The northwest and central portions of the Discon property are underlain by quartz diorite and diorite of the Coast Plutonic Complex. The diorite is fine to medium grained, grey-green, equigranular and occasionally foliated. Minor porphyritic rhyodacite of the Tertiary to Quaternary Garibaldi Group were located in the northwest corner of the property. The rhyodacite is grey to tan, aphanitic to fine grained and equigranular containing phenocrysts of quartz, plagioclase, sanidine and biotite. The Gambier Group consists of an assemblage composed of greenstone, chlorite-muscovite schist, phyllite, argillite, limestone and pyroclastic rocks of dacitic to andesitic composition. Pyroclastic rocks include an andesitic agglomerate containing subangular to rounded fragments of porphyritic andesite, equigranular andesite, sandstone and equigranular dacite. All rocks except late stage siliceous dikes have been regionally metamorphosed to greenschist facies. Propylitic and sericitic alteration of hostrocks is common; in some areas secondary carbonate has been introduced. Sulphide-rich areas are mostly composed of quartz, pyrite, muscovite and minor chlorite. Silicification intensity decreases outward from complete replacement to fine veinlets and stringers.

Mineralization at the Discon showing is associated with shear zones in phyllitic argillite and intrusive rocks. Sulphides occur primarily in crosscutting veinlets or as massive sulphide zones. Shearing in phyllitic argillites contain pyrite, pyrrhotite, chalcopyrite, argentite, bornite, covellite with malachite and hydrozincite alteration. Sulphide-rich layers are intercalated with phyllite schist, in places forming laminae of chalcopyrite and pyrite. Mineralization has been found over widths of 2 to 3 metres in a 15-metre wide shear zone and exposed over at least 25 metres length. The zone strikes 320 degrees and dips steeply to the east.

A sample of sulphide-rich rock assayed 20.5 grams per tonne silver and 1.4 grams per tonne gold (Assessment Report 11127). Other chip samples averaged 46.5 grams per tonne silver, 3.1 per cent copper and 0.03 per cent molybdenum (Assessment Report 20627).

In 1990, 4 samples from a massive sulphide lens yielded anomalous copper and silver values. Grab sample 90T30 yielded 2.54 per cent copper and 31.7 grams per tonne silver from foliated greenstone with veining and trace sulphides (Assessment Report 20627). Grab sample 90T31 yielded 4.86 per cent copper and 64.3 grams per tonne silver from 1.2 metres of schist with quartz veining and trace chalcopyrite. Chip sample 90T32 over 1.5 metres yielded 7.27 per cent copper and 111.1 grams per tonne silver from schist and 5 per cent massive chalcopyrite. Chip sample 90T33 over 1.0 metre yielded 1.98 per cent copper and 19.6 grams per tonne silver from schist with quartz veining and 10 to 15 per cent massive chalcopyrite, azurite, malachite and argentite(?).

Sample 93-PL-03 yielded 4.52 per cent copper and 80.1 grams per tonne silver, extending the known strike length of mineralization (Assessment Report 22923).

BIBLIOGRAPHY

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EMPR PF (White, G.E. (1973): Report)
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 024**

NATIONAL MINERAL INVENTORY: 092J3 Au3,Ag1

NAME(S): **ZONE 4, DICK, ZINC**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 04 09 N
LONGITUDE: 123 06 55 W
ELEVATION: 630 Metres

NORTHING: 5546327
EASTING: 491750

LOCATION ACCURACY: Within 500M

COMMENTS: Location of showing (Geology 1977-1981, Fig. 32).

COMMODITIES: Zinc Copper Lead Gold Silver

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite Pyrrhotite Pyrite Galena
 Covellite Argentite Electrum
ASSOCIATED: Garnet Epidote
ALTERATION: Garnet Epidote
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform
CLASSIFICATION: Skarn
TYPE: K02 Pb-Zn skarn

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Marble
Limestone
Andesite
Diorite
Volcanic Tuff

HOSTROCK COMMENTS: Deposit is hosted in Gambier Group marble.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: Post-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1978
SAMPLE TYPE: Drill Core

COMMODITY	GRADE	
Silver	7.8800	Grams per tonne
Copper	0.0400	Per cent
Zinc	8.2000	Per cent

COMMENTS: From a 1.5 metre drill interval.
REFERENCE: Assessment Report 7032.

CAPSULE GEOLOGY

The Zone 4 skarn showing is located between Brandywine and Callaghan creeks adjacent to Highway 99 near the township of Whistler. The area is underlain by diorite of the Jurassic to Tertiary Coast Plutonic Complex and metavolcanics and metasediments of the Lower Cretaceous Gambier Group, preserved in the Callaghan Creek roof pendant. Pliocene to Recent Garibaldi Group volcanic rocks overlie the older rocks to the east.

Mineralization consists of sphalerite, chalcopyrite, pyrrhotite, pyrite, galena, covellite, argentite and electrum, contained entirely within a marble pod. Sulphides are intimately associated with calc-silicate minerals, primarily garnet and epidote, with both sulphides and calc-silicate minerals occurring in sporadic patches within the marble.

A 1.5-metre intersection from 1978 drill hole #1 contained 8.2 per cent zinc, 7.88 grams per tonne silver and 0.04 per cent copper (Assessment Report 7032). A six-metre random chip sample across a

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CAPSULE GEOLOGY

trench blasted in 1977 assayed 18.7 per cent zinc (George Cross News Letter No.179, 1977).

BIBLIOGRAPHY

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GSC OF 482
GSC P 75-1A, pp. 37-40
GCNL #150,#179,#188, 1977

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/29

CODED BY: GSB
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 025**

NATIONAL MINERAL INVENTORY: 092J3 Au3,Ag1

NAME(S): **MILLSITE MCKENZIE, SPINE,
ASH, BRANDY**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:
LATITUDE: 50 03 39 N
LONGITUDE: 123 07 37 W
ELEVATION: 500 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of Millsite showing (Geology 1977-1981, Figure 32).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5545402
EASTING: 490914

COMMODITIES: Gold Silver Zinc Copper Lead

MINERALS

SIGNIFICANT: Sphalerite Galena Chalcopyrite
COMMENTS: Sphalerite and galena veins and minor chalcopyrite mineralization in a stockwork.
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Dacite
Greenstone
Hornblende Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1974

SAMPLE TYPE: Drill Core

COMMODITY

GRADE

Silver	517.7000	Grams per tonne
Gold	6.1700	Grams per tonne
Copper	0.0100	Per cent
Lead	0.4400	Per cent
Zinc	1.2000	Per cent

COMMENTS: Intersection from drillhole MC4 - 1.5 metres in a sheared dacite.

REFERENCE: Assessment Report 5405.

CAPSULE GEOLOGY

The Millsite showing is located near a sawmill on the north side of Brandywine Creek, approximately three kilometres north of Brandywine Falls in the Pacific Ranges.

The elongate, northwest trending Callaghan Creek roof pendant comprising Lower Cretaceous Gambier Group volcanic and sedimentary rocks underlies the region. The Millsite showing occurs within greenstones at the western edge of the roof pendant near a small body of hornblende diorite of the Jurassic to Tertiary Coast Plutonic Complex.

Mineralization consists of sphalerite, galena and less abundant chalcopyrite in veins and stringers hosted by greenstone. Stockwork chalcopyrite mineralization is also present within a pod of hornblende diorite.

A 1974 drill hole (MC4) intersected 1.5 metres of sheared dacite grading 6.17 grams per tonne gold, 517.7 grams per tonne silver, 1.2 per cent zinc, 0.44 per cent lead and 0.01 per cent copper. (Assessment Report 5405).

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19433, 20047
EMPR EXPL 1979-182
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EMPR GEM 1970-231; 1970-307; 1974-199
EMPR GEOLOGY *1977-1981, pp. 98-100
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1985/07/24
DATE REVISED: 1991/07/26

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 026**

NATIONAL MINERAL INVENTORY: 092J14 As1

NAME(S): **NATIVE SON, LECKIE**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J14E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 58 00 N
LONGITUDE: 123 02 25 W
ELEVATION: 1768 Metres

NORTHING: 5646119
EASTING: 497172

LOCATION ACCURACY: Within 500M

COMMENTS: 1988 trench sample (Assessment Report 17920).

COMMODITIES: Gold Arsenic Copper Lead Zinc

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Chalcopyrite Galena Sphalerite

Pyrrhotite

ASSOCIATED: Quartz Calcite

ALTERNATION: Scorodite Sericite

ALTERNATION TYPE: Oxidation Clay Ankerite Mariposite

MINERALIZATION AGE: Unknown Argillic Sericitic Quartz-Carb.

DEPOSIT

CHARACTER: Podiform Massive Disseminated Stockwork

CLASSIFICATION: Hydrothermal Epigenetic

TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Cretaceous
Mesozoic-Cenozoic

GROUP

Kingsvale

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartzite
Greywacke
Shale
Quartz Diorite
Biotite Hornblende Granodiorite
Feldspar Porphyry

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1988

SAMPLE TYPE: Chip

COMMODITY

GRADE

Gold

11.1400

Grams per tonne

COMMENTS: Chip sample across 1.2 metres of massive arsenopyrite with minor chalcopyrite.

REFERENCE: Assessment Report 17920.

CAPSULE GEOLOGY

The Native Son showing is located just south of Leckie Creek along northeast facing slopes of the Leckie Range north of Downton Lake. Upper Cretaceous Kingsvale Group sedimentary rocks consisting of argillaceous and feldspathic quartzite, greywacke, shale and minor conglomerate underlie most of the property. The northwesterly striking Tchaikazan fault bisects the property, placing sedimentary rocks in contact with quartz diorite to granodiorite of the Jurassic to Tertiary Coast Plutonic Complex on the southwest.

Gold mineralization occurs as fracture controlled replacement bodies of massive to disseminated arsenopyrite and pyrite with chalcopyrite and pyrrhotite, in both sedimentary rocks and quartz diorite. Pyrite-arsenopyrite-galena-sphalerite mineralization is also present in quartz-calcite stockworks and in breccia in highly altered quartz diorite and sedimentary rocks. Alteration of these zones consists of sericite, clay, ankerite and mariposite. Precious metals have not been detected in association with this style of mineralization.

A 1.2-metre sample of massive arsenopyrite with minor

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CAPSULE GEOLOGY

chalcopyrite taken from a trench during 1988 was found to contain 11.14 grams per tonne gold (Assessment Report 17920).

BIBLIOGRAPHY

EMPR AR 1924-B141; 1925-A174; 1926-191
EMPR ASS RPT 8865, *17920
GSC ECON GEOL 4, p. 84
GSC MAP 43-15A
GSC OF 482
GSC P 43-15, p. 26; 73-17; 75-1A, pp. 37-40
GSC SUM RPT 1928, Part A, pp. 92-93

DATE CODED: 1985/07/24
DATE REVISED: 1991/02/12

CODED BY: GSB
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 027**

NATIONAL MINERAL INVENTORY:

NAME(S): **MENDELLA**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 00 25 N
LONGITUDE: 123 59 17 W
ELEVATION: 256 Metres

NORTHING: 5539871
EASTING: 429200

LOCATION ACCURACY: Within 500M
COMMENTS: Upper showing.

COMMODITIES: Silver Copper Zinc Lead

MINERALS

SIGNIFICANT:	Pyrite	Pyrrhotite	Sphalerite	Galena	Chalcopyrite
ASSOCIATED:	Quartz				
ALTERATION:	Silica	Sericite	Malachite		
ALTERATION TYPE:	Silicific'n	Sericitic		Oxidation	
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER:	Disseminated	Vein
CLASSIFICATION:	Hydrothermal	Epigenetic
SHAPE:	Irregular	

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Biotite Quartz Schist
Quartz Sericite Schist
Muscovite Biotite Schist
Biotite Schist
Biotite Granodiorite
Foliated Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1984

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver	5.8000	Grams per tonne
Copper	0.0400	Per cent
Lead	0.0900	Per cent
Zinc	0.2500	Per cent

COMMENTS: Sample #R05244: quartz-pyrite altered rock.
REFERENCE: Assessment Report 13626.

CAPSULE GEOLOGY

The property is centred on Seshal Creek on the western shore of Princess Royal Reach of Jervis Inlet. In this area, a small roof pendant of Lower Cretaceous Gambier Group metavolcanic rocks is bounded to the west by foliated granodiorite and to the east by massive biotite granodiorite of the Jurassic to Mesozoic Coast Plutonic Complex. Gambier Group rocks of the roof pendant have been metamorphosed to greenschist facies with biotite-rich schists the dominant rock type.

Two zones of mineralization have been located. A lower zone is characterized by wispy bands and disseminations of pyrite and pyrrhotite with minor sphalerite, galena and malachite within quartz-sericite altered schist. The upper zone consists of pyrite, pyrrhotite, sphalerite, galena and chalcopyrite in bands and quartz veins. A sample of quartz-pyrite altered schist graded 5.8 grams per tonne silver, 0.04 per cent copper, 0.09 per cent lead and 0.25 per cent zinc (Assessment Report 13626).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 903
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR AR 1917, pp. 281-282
EMPR ASS RPT *13626
EMPR EXPL 1985-C213
GSC OF 482, 611
GSC P 75-1A, pp. 37-40

DATE CODED: 1991/02/08
DATE REVISED: 1991/03/12

CODED BY: CID
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 028**

NATIONAL MINERAL INVENTORY:

NAME(S): **ANGEL**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J12E
BC MAP:

MINING DIVISION: Lillooet

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 34 27 N
LONGITUDE: 123 31 46 W
ELEVATION: 1040 Metres

NORTHING: 5602606
EASTING: 462510

LOCATION ACCURACY: Within 500M

COMMENTS: The approximate elevation of the contact between quartz diorite of the Coast Plutonic Complex and volcanics of the Garibaldi Group on the Angel claims, 2.5 kilometres south of Pylon Peak and 1.5 kilometres north of Meager Creek (Assessment Report 21882).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Recent
Jurassic-Cretaceous

GROUP

Garibaldi

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Rhyodacite
Rhyodacite Tuff
Rhyodacite Flow

HOSTROCK COMMENTS: The Garibaldi Group is Pliocene to Recent in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Angel showing is located along the contact between quartz diorite of the Coast Plutonic Complex and volcanics of the Garibaldi Group on the Angel claims, 2.5 kilometres south of Pylon Peak and 1.5 kilometres north of Meager Creek.

The Angel showing is underlain by altered rhyodacite flows and tuffs of the Pliocene to Recent Garibaldi Group. The flows and tuffs dip 20 to 25 degrees east. In the lowermost part of this unit, rhyodacite contains small amounts of disseminated oxidized pyrite. Pyrite and chalcopyrite also occur in a narrow fracture zone in quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex.

A 0.25-metre chip sample was assayed for gold but failed to yield any anomalous values (Assessment Report 19331). In 1991, 34 soil samples were taken, which yielded up to 1 gram per tonne silver, 30 parts per billion gold and 30 parts per million copper (Assessment Report 21882).

BIBLIOGRAPHY

EMPR ASS RPT *19331, 21882
EMPR PF (Fairbank, B.D., Shore, G.A., Werner, L.J., Nevin, A.E. and Sadlier-Brown, T.L. (1979): Report on 1978 Field Work - Meager Creek Geothermal Area, for B.C. Hydro and Power Authority and Energy Mines and Resources Canada - 1978 Joint Venture (General File))
GSC OF 482; 603

DATE CODED: 1991/07/30
DATE REVISED: 1997/06/30

CODED BY: GJP
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 029**

NATIONAL MINERAL INVENTORY:

NAME(S): **JERVIS INLET SLATE** JERVIS INLET, DESERTED BAY

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092J04E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 50 05 14 N

NORTHING: 5548592

LONGITUDE: 123 44 32 W

EASTING: 446904

ELEVATION: 34 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Quarry on Deserted Bay, on the east shore of Jervis Inlet (CANMET Report 452).

COMMODITIES: Slate

Flagstone

Dimension Stone

Building Stone

MINERALS

SIGNIFICANT: Unknown

ASSOCIATED: Quartz Calcite

MINERALIZATION AGE: Lower Cretaceous

DEPOSIT

CHARACTER: Massive

Stratabound

CLASSIFICATION: Sedimentary

Industrial Min.

TYPE: R08 Flagstone

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Lower Cretaceous

Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Carbonaceous Slate

Tuff

Breccia

Argillite

Granite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Slate was quarried on a Reserve at Deserted Bay on the east shore of Jervis Inlet, 22 kilometres southeast of the head of the inlet. The region near the head of Jervis Inlet is underlain by an irregular, northwest trending roof pendant comprised of tuff, breccia and argillite of the Lower Cretaceous Gambier Group. The pendant occurs in Jurassic to Tertiary Coast Plutonic Complex rocks.

The stone at the Deserted Bay quarry consists of a finely laminated black carbonaceous slate free from significant impurities. Cleavage is developed perpendicular to indistinct horizontal to shallow dipping bedding. The slate is cut in places by quartz and calcite veins and by small granite dykes.

The quarry was first opened in 1890 and was reopened briefly in 1907, when slate was exported to California, and also used in a number of barracks of the North West Mounted Police. The quarry was active again in 1957 and 1958 when British Columbia Slate Company Ltd. produced slate for flagstone and tile. Approximately 600 tonnes of slate was quarried and shipped to Vancouver over these two years.

BIBLIOGRAPHY

EMPR AR 1957-79; 1958-87
EMPR INF CIRC 1994-15
EMPR MAP 65 (1989)
EMPR OF 1992-1; 1992-9
GSC OF 482
GSC P 75-1A
GSC RPT 996 (1908)
CANMET RPT *452, Vol.5, pp. 194,195 (Parks, 1917)
Victoria Daily Colonist (1958)

DATE CODED: 1985/07/24
DATE REVISED: 1991/03/09

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 030**

NATIONAL MINERAL INVENTORY:

NAME(S): **C**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 50 N
LONGITUDE: 123 00 56 W
ELEVATION: 750 Metres

NORTHING: 5549441
EASTING: 498887

LOCATION ACCURACY: Within 500M

COMMENTS: Showing location (Assessment Report 17063).

COMMODITIES: Gold Silver Copper Molybdenum Arsenic

MINERALS

SIGNIFICANT: Pyrite Arsenopyrite Chalcopyrite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Silica Chlorite Epidote Limonite
ALTERATION TYPE: Silicific'n Propylitic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Mesozoic-Cenozoic Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 1.3700 Grams per tonne
Gold 2.9500 Grams per tonne

COMMENTS: Sample #R2-1862 from a four centimetre-wide quartz vein.
REFERENCE: Assessment Report 17063.

CAPSULE GEOLOGY

The C showing is located on the south slopes of Sproat Mountain adjacent to the Squamish-Pemberton highway. The area is underlain by quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. Zones that have been propylitically altered and silicified contain quartz veins with pyrite and rare chalcopyrite or molybdenite. A four-centimetre wide quartz vein assayed 2.95 grams per tonne gold and 1.37 grams per tonne silver (Assessment Report 17063).

BIBLIOGRAPHY

EMPR ASS RPT 11470, 12801, *17063
EMPR EXPL 1983-301; 1988-C119
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1991/02/08
DATE REVISED: 1991/03/12

CODED BY: CID
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 031**

NATIONAL MINERAL INVENTORY:

NAME(S): **LIL**

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J12E 092J13E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 44 40 N
LONGITUDE: 123 35 45 W
ELEVATION: 1600 Metres

NORTHING: 5621576
EASTING: 457962

LOCATION ACCURACY: Within 500M

COMMENTS: Location of anomalous rock samples from east trending shear zone (Assessment Report 15571).

COMMODITIES: Gold Silver Zinc Lead Copper

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite
ASSOCIATED: Quartz Carbonate
ALTERATION: Quartz Clay Limonite
ALTERATION TYPE: Silicific'n Argillic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork Disseminated Shear
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cenozoic	Garibaldi	Unnamed/Unknown Formation	
Paleozoic			Unnamed/Unknown Informal
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Amphibolite Gneiss
Granitic Gneiss
Quartz Diorite
Volcanic Flow
Tuff
Volcanic Breccia
Rhyodacite Dike
Dacite Dike
Basaltic Dike

HOSTROCK COMMENTS: Gneissic rocks are assumed to be part of an older terrane intruded by rocks of the Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Undivided Metamorphic Assembl. Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: Pre-mineralization GRADE: Amphibolite
COMMENTS: Metamorphic grade is that of the older supracrustal rocks.

INVENTORY

ORE ZONE: SHOWING REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 82.3000 Grams per tonne
Gold 2.4000 Grams per tonne
Copper 0.0100 Per cent
Lead 0.3400 Per cent
Zinc 0.2900 Per cent

COMMENTS: Sample #9388 taken across a two metre width.
REFERENCE: Assessment Report 15571.

CAPSULE GEOLOGY

The Lil property is situated near the headwaters of the Lillooet River in the Pacific ranges of the Coast Crystalline belt. Paleozoic granitic and amphibolitic gneiss, and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex underlie most of the property. Felsic to intermediate flows and pyroclastic rocks of the Pliocene to Recent Garibaldi Group cover part of the rocks. All lithologies are intruded by rhyodacite, dacite and basalt dykes.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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CAPSULE GEOLOGY

North to northeast and, occasionally, east trending shear zones are also recognized in the area.

Mineralization consists of pyrite-sphalerite-galena plus/minus chalcopyrite in quartz veins and as fracture-fillings in shear zones. Disseminated pyrite is common in shears, adjacent to intrusive contacts and as an accompaniment to silicification and clay alteration. A two-metre chip sample from a shear zone in silicified and clay-altered mafic gneiss graded 2.4 grams per tonne gold, 82.3 grams per tonne silver, 0.29 per cent zinc and 0.34 per cent lead (Assessment Report 15571).

BIBLIOGRAPHY

EMPR ASS RPT 9321, 10579, *13476, *15571
EMPR EXPL 1984-230; 1987-C208
EMPR PF (Report by B.D. Fairbank et al., 1979)
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1991/02/12
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 031**

MINFILE NUMBER: **092JW 032**

NATIONAL MINERAL INVENTORY:

NAME(S): **SILVER BAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 57 N
LONGITUDE: 123 45 12 W
ELEVATION: 15 Metres

NORTHING: 5549928
EASTING: 446122

LOCATION ACCURACY: Within 500M

COMMENTS: Adit location (Assessment Report 13654).

COMMODITIES: Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Sphalerite Galena Arsenopyrite

 Chalcopyrite
COMMENTS: Minor amounts of chalcopyrite.

ASSOCIATED: Quartz Carbonate

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear Disseminated

CLASSIFICATION: Hydrothermal Epigenetic

DIMENSION: STRIKE/DIP: 161/78W TREND/PLUNGE:

COMMENTS: Shear exposed in adit.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Lower Cretaceous

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Dacite
 Rhyodacite
 Slate
 Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Pacific Ranges

TERRANE: Gambier

METAMORPHIC TYPE: Regional

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1984

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver 26.1000 Grams per tonne

Copper 0.0100 Per cent

Lead 0.7100 Per cent

Zinc 0.1000 Per cent

COMMENTS: Chip sample taken over one metre in quartz-rich zone in rhyodacite.

REFERENCE: Assessment Report 13654.

CAPSULE GEOLOGY

The Silver Bay property is located on the east shore of Jervis Inlet in Deserted Bay. A sequence of metavolcanic and metasedimentary rocks of the Lower Cretaceous Gambier Group, preserved as a roof pendant, outcrop within the claim area. Metavolcanic rocks include phyllitic and tuffaceous dacite, rhyodacite and andesite; slate is intercalated with the metavolcanic. Narrow andesitic dykes and sills intrude the bedded units.

Mineralization consists of pyrite, pyrrhotite, sphalerite, galena, arsenopyrite and minor chalcopyrite associated with a small shear in dacite and within quartz veins along a rhyodacite-slate contact. A six-metre adit was driven along the mineralized shear zone prior to 1940. A 1.5-metre sample from the adit assayed 0.4 per cent zinc, 0.13 per cent lead and 1.9 grams per tonne silver. A one-metre wide sample of quartz-rich rhyodacite graded 26.1 grams per tonne silver, 0.01 per cent copper, 0.71 per cent lead and 0.1 per cent zinc (Assessment Report 13654).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 910
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR ASS RPT 12579, *13654
EMPR EXPL 1983-301, 1985-C212
GSC OF 482
GSC P 25-1A, pp. 37-40

DATE CODED: 1991/02/08
DATE REVISED: 1991/03/12

CODED BY: CID
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 033**

NATIONAL MINERAL INVENTORY:

NAME(S): **SANTA**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 17 N
LONGITUDE: 123 07 49 W
ELEVATION: 1090 Metres

NORTHING: 5557695
EASTING: 490697

LOCATION ACCURACY: Within 500M
COMMENTS: Collar of drillhole DH2 (Assessment Report 7737).

COMMODITIES: Tungsten Molybdenum Silver Copper

MINERALS

SIGNIFICANT:	Scheelite	Pyrite	Chalcopyrite	Ferrimolybdite	Tetrahedrite
ASSOCIATED:	Quartz	Ankerite	Calcite		
ALTERATION:	Epidote	Chlorite			
ALTERATION TYPE:	Propylitic				
MINERALIZATION AGE:	Unknown				

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Hydrothermal Skarn

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	
Cenozoic	Garibaldi	Unnamed/Unknown Formation	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Greisen
Limestone
Diorite
Andesitic Tuff
Tuffaceous Sandstone
Tuffaceous Siltstone
Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Gambier	Plutonic Rocks
METAMORPHIC TYPE: Regional	RELATIONSHIP: GRADE: Greenschist

CAPSULE GEOLOGY

The region in which the Santa showing occurs is underlain by Lower Cretaceous Gambier Group metavolcanic and metasedimentary rocks preserved in the Callaghan Creek roof pendant, hosted by plutonic rocks of the Jurassic to Tertiary Coast Plutonic Complex. The property is underlain by andesitic tuff, tuffaceous sandstone and siltstone and limestone of the Gambier Group which has been intruded by dioritic bodies. Basalt of the Pliocene to Recent Garibaldi Group overlies these older rocks.

Mineralization is reported to be scheelite in limestone or greisen accompanied by pyrite and minor chalcopyrite, ferrimolybdite and tetrahedrite.

Drilling in 1979 failed to intersect significant mineralization.

BIBLIOGRAPHY

EMPR ASS RPT *6147, 7210, *7737
EMPR EXPL 1976-122; 1977-166; 1978-175; 1979-183; 1980-248
EMPR PF (Report by L. Sookochoff, 1978, 1980; Shareholder Updates - Lakewood Mining Company, 1979)
GSC OF 482
GSC P 75-1A, pp. 37-40
GCNL #201,#240, 1977; #238, 1979; #32,#76,#130,#194, 1981
N MINER Sept 17, 1981

DATE CODED: 1987/03/04
DATE REVISED: 1991/03/10

CODED BY: AFW
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 034**

NATIONAL MINERAL INVENTORY:

NAME(S): **DISCOVERY I**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 02 N
LONGITUDE: 123 06 20 W
ELEVATION: 915 Metres

NORTHING: 5549816
EASTING: 492451

LOCATION ACCURACY: Within 500M

COMMENTS: Discovery 1 showing (Assessment Report 16443).

COMMODITIES: Gold Silver Copper Zinc Lead

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite Tetrahedrite
ASSOCIATED: Quartz Carbonate
ALTERATION: Muscovite Limonite Malachite
ALTERATION TYPE: Sericitic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex
Mesozoic-Cenozoic			

LITHOLOGY: Hornblende Diorite
Andesitic Greenstone
Brecciated Lapilli Tuff
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 74.8000 Grams per tonne
Gold 1.1500 Grams per tonne
Copper 5.5700 Per cent

COMMENTS: Sample #86 DJC 002 from a quartz vein.
REFERENCE: Assessment Report 16443.

CAPSULE GEOLOGY

The Discovery I mineral occurrence is situated within Lower Cretaceous Gambier Group rocks of the Callaghan Creek roof pendant which is one of the many northwest trending volcanic and volcanic-sedimentary pendants within the southern part of the Jurassic to Tertiary Coast Plutonic Complex. Contacts between roof pendants and the surrounding plutonic rocks are sharp and, commonly, are narrow shear zones with orientations subparallel to the main foliation of the roof pendant.

The occurrence is reportedly underlain by quartz diorite. To the immediate north, andesitic agglomerate and crystal tuff occur. Chalcopyrite occurs as a stockwork with pyrite, sphalerite, galena, chalcopyrite, malachite, and tetrahedrite within a quartz-carbonate gangue.

A quartz vein, sampled during 1986, contained 1.15 grams per tonne gold, 74.8 grams per tonne silver and 5.57 per cent copper (Assessment Report 16443).

BIBLIOGRAPHY

EMPR ASS RPT *16443, 17851
EMPR EXPL 1987-C204; 1988-C119

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
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PAGE: 913
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR FIELDWORK 1977, pp. 96-102; 1977, pp. 124-131
GSC MAP 1386A
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1988/03/18
DATE REVISED: 1991/02/08

CODED BY: GSA
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 035**

NATIONAL MINERAL INVENTORY:

NAME(S): **DISCOVERY II**

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092J03E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 54 N
 LONGITUDE: 123 07 50 W
 ELEVATION: 610 Metres

NORTHING: 5549572
 EASTING: 4906663

LOCATION ACCURACY: Within 500M

COMMENTS: Discovery II showing (Assessment Report 16443).

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Chalcopyrite Galena Sphalerite Pyrite
 ASSOCIATED: Hematite Quartz
 ALTERATION: Muscovite Limonite
 ALTERATION TYPE: Sericitic Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated Massive Shear
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
 SHAPE: Irregular
 MODIFIER: Sheared Faulted

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Andesitic Greenstone
 Rhyodacite Dike
 Quartz Diorite
 Schist

HOSTROCK COMMENTS: Gambier Group rocks occur within the Callaghan Creek roof pendant.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Pacific Ranges
 PLUTONIC ROCKS RELATIONSHIP:
 GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1987
 SAMPLE TYPE: Grab

COMMODITY	GRADE	
Silver	8.3000	Grams per tonne
Gold	0.8950	Grams per tonne
Copper	0.7000	Per cent
Lead	0.2000	Per cent
Zinc	5.4000	Per cent

COMMENTS: Rock sample #87-04-LD from shear zone in greenstone.
 REFERENCE: Assessment Report 16443.

CAPSULE GEOLOGY

The Discovery II showing occurs within Lower Cretaceous Gambier Group rocks of the Callaghan Creek roof pendant, one of many northwest trending volcanic and volcanic-sedimentary pendants within the southern part of the Jurassic to Tertiary Coast Plutonic Complex. Contacts between roof pendants and the surrounding plutonic rocks are sharp and, commonly, are narrow shear zones with orientations subparallel to the main foliation of the roof pendant.

The occurrence is reportedly underlain by weakly metamorphosed greenstone or schist with intercalated sedimentary units. These rocks have been cut by northwest trending shears and fault zones. The mineralization is reported to be associated with sheared greenstone and rhyodacitic dykes. Mineralization includes sphalerite, galena, chalcopyrite and hematite in crosscutting quartz veinlets, as disseminations and as massive sulphides which are

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CAPSULE GEOLOGY

locally layered parallel to the foliation.

A sample from a shear zone in andesitic greenstone assayed 0.895 gram per tonne gold, 8.3 grams per tonne silver, 0.7 per cent copper, 0.2 per cent lead and 5.4 per cent zinc (Assessment Report 16443).

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EMPR EXPL 1987-C204; 1988-C119
EMPR FIELDWORK 1977, pp. 96-102; 1978. pp. 124-131
GSC MAP 1386A
GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1988/03/18
DATE REVISED: 1991/02/08

CODED BY: GSA
REVISED BY: CID

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 036**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOUTHAIR**, SOUTHAIR SOUTH, HIT,
IT

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:
LATITUDE: 50 08 59 N
LONGITUDE: 123 08 59 W
ELEVATION: 1100 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Trenched showing along Southair - Southair South claim boundary
(Assessment Report 14252).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5555288
EASTING: 489303

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Chalcopyrite Bornite
ASSOCIATED: Quartz
ALTERATION: Quartz Azurite Malachite
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform
CLASSIFICATION: Epigenetic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Chlorite Schist
Greenstone
Biotite Quartz Schist
Quartzite
Chert
Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP:
GRADE: Greenschist

INVENTORY

ORE ZONE: VEIN
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY
Silver 31.5000 Grams per tonne
Gold 1.2300 Grams per tonne
Copper 1.0000 Per cent
REFERENCE: Assessment Report 14252.

CAPSULE GEOLOGY

The Southair property is located east of Callaghan Creek and north of Brandywine Falls near the village of Whistler on Highway 99. A north trending, subvertically dipping succession of metavolcanics and metasediments of the Lower Cretaceous Gambier Group underlies the area and forms part of the Callaghan Creek roof pendant within diorite and granodiorite of the Jurassic to Tertiary Coast Plutonic Complex. Metavolcanic rocks comprise greenstone and chlorite schist while metasedimentary rock consist of biotite-quartz schist with minor quartzite, chert and local skarn near intrusive contacts. A 15 by 3-metre zone of quartz flooding in foliated metavolcanics contains chalcopyrite-bornite-malachite-azurite mineralization. Assays of greater than 1 per cent copper, 1.23 grams per tonne gold and 31.5 grams per tonne silver have been obtained from this zone (Assessment Report 14252).

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EMPR PF (Report by A.K. Sweet, 1979)
GSC OF 482
GSC P 75-1A, pp. 37-40
GCNL #197, 1984; #16, 1985

DATE CODED: 1991/02/07
DATE REVISED: 1991/03/12

CODED BY: CID
REVISED BY: DGB

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 037**

NATIONAL MINERAL INVENTORY:

NAME(S): **MARBLE**, HELPFUL, DAISY,
FF, J, CJS,
VENETIAN

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J03E
BC MAP:
LATITUDE: 50 01 17 N
LONGITUDE: 123 06 09 W
ELEVATION: 550 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Approximate location of main shear showing (Assessment Report 18645).

Underground

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

NORTHING: 5541014
EASTING: 492657

COMMODITIES: Gold Molybdenum Silver Tellurium Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Telluride Pyrrhotite
Galena Sphalerite
ASSOCIATED: Quartz Carbonate Ankerite
ALTERATION: Silica Sericite Albite Carbonate Malachite
COMMENTS: Manganese oxide coatings commonly occur with mineralization.
ALTERATION TYPE: Silicific'n Sericitic Albite Carbonate Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Porphyry
TYPE: I06 Cu±Ag quartz veins 101 Au-quartz veins
L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	
Lower Cretaceous	Undefined Group	Helm	
Jurassic-Cretaceous			Coast Plutonic Complex
Mesozoic-Cenozoic			Unnamed/Unknown Informal

LITHOLOGY: Granodiorite
Schist
Quartz Feldspar Porphyry
Diorite
Mafic Volcanic
Volcaniclastic
Limestone
Phyllite
Chert
Mafic Dike

HOSTROCK COMMENTS: Metavolcanic and metasedimentary rocks are assigned to the Chekamus, Helm and Empetrum formations and the Gambier Group.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Pacific Ranges
RELATIONSHIP: Plutonic Rocks
GRADE: Greenschist

INVENTORY

ORE ZONE: WEBB SITE
CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Copper
COMMENTS: Sample 5082.
REFERENCE: Assessment Report 21345.
REPORT ON: N
YEAR: 1991
GRADE: 0.1300 Per cent

CAPSULE GEOLOGY

mineralization is the most widespread and economically important type of mineralization.

The dominant style of mineralization of the showing consists of pyrite, chalcopyrite and molybdenite-bearing, sugary, white quartz veins within sheared rocks of the Main shear zone, developed at the contact of and within granodiorite. They are accompanied by gold tellurides, pyrrhotite, galena, and sphalerite-bearing shear zones associated with silicification, sericitization, albitization and carbonatization. This type of mineralization was not observed within the Marble Creek melange. Large sugary white quartz veins are present at the Main, Lake, Black Tusk, 6.5 Mile and Eastern zones. Veinlets are common in the Contact, Cu-Mo and Park zones and are scattered through the Main shear zone. Sugary white quartz veins and veinlets are commonly boudinaged and have sheared margins. Mineralization occurs as blebs, disseminations and films. Manganese oxide coatings commonly occur with the mineralization. Quartz veins occupy dilatant zones, which formed early in the evolution of the Main shear zone. The largest veins occur in the Main and Lake zones, which are at the junction of the Main shear zone and the Marble Creek melange. Dextral movement along shears that bend from the Marble Creek melange into the Main shear zone created large dilatant zones.

One sample yielded 30.1 grams per tonne gold and 86.0 grams per tonne silver over 0.15 metre (Assessment Report 18645). Molybdenite mineralization is associated with shear zones in the area. Values for molybdenum range up to 0.133 per cent in grab samples (Assessment Report 18645). Rock sampling has shown an apparent zonation from base metal mineralization in the west to pyrite-telluride-gold mineralization in the centre to copper-molybdenum mineralization in the east. In 1991, sample 5082 from granodiorite, sericite-chlorite-quartz schist and mafic dike of the Black Tusk zone yielded 0.13 per cent copper (Assessment Report 21345). Sample 5193, from the Lake zone yielded 28 grams per tonne silver, 0.5 gram per tonne gold and 1.46 per cent copper. At the Eastern zone, sample 5384 yielded 3.8 grams per tonne gold. A total of 58 rock chip samples were taken from 5 sites at the Park zone with discouraging results overall. The highest values obtained were 9 grams per tonne silver, 0.04 gram per tonne gold, 0.07 per cent copper and 0.006 per cent molybdenum. Traces of chalcopyrite and molybdenite were observed. Elevated copper and molybdenum values occur together. Silver and gold values occur together but are not associated with copper and molybdenum. Sample 5164 from the Venetian showing yielded 110 grams per tonne silver, 8.3 grams per tonne gold and 0.17 per cent copper (Assessment Report 21345). Three samples (5157 to 5159) were taken from sugary white quartz veins with chalcopyrite in a crossfault south of and roughly midway between the Black Tusk and East zones. The samples yielded 0.32, 0.19 and 0.39 per cent copper, respectively.

Copper-molybdenum porphyry mineralization consists of fracture controlled and disseminated pyrite, molybdenite and chalcopyrite. This type of mineralization occurs in the Cu-Mo zone, within a small stock of quartz-eye feldspar porphyry and predates sugary white quartz veins and contemporaneous shearing. Malachite is locally common. Sample 5170 taken in 1991 from quartz-eye feldspar porphyry in the Cu-Mo zone yielded 0.24 per cent copper (Assessment Report 21345).

Another style of mineralization that occurs are northeast trending, quartz vein/tension gashes in granodiorite, made up of sugary quartz with irregularly distributed zones containing blebs of pyrite and minor chalcopyrite with characteristic dark blebs of chlorite. The veins, which post-date sugary white quartz veins and related mineralization, are small and ubiquitous. Grab samples from the sulphide-rich portions assayed up to 122.1 grams per tonne gold (Assessment Report 18645).

Late ankerite vein mineralization consists of trace pyrite within narrow, vuggy, orange weathering ankerite veins, some of which have centres of calcite. The veins are enveloped by carbonate alteration zones up to 1 metre wide. These veins are only found in the Eastern zone.

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*18645, 19571, *21345
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EMPR FIELDWORK 1977, pp. 96-102
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GCNL #192, #242, 1979; #146, 1980
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Placer Dome File

DATE CODED: 1991/02/08
DATE REVISED: 1996/06/30

CODED BY: CID
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 038**

NATIONAL MINERAL INVENTORY:

NAME(S): **SLATE** WINK

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J04E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 01 36 N
LONGITUDE: 123 34 43 W
ELEVATION: 820 Metres

NORTHING: 5541756
EASTING: 458556

LOCATION ACCURACY: Within 500M
COMMENTS: Location of 1986 drilling.

COMMODITIES: Gold Silver Platinum Tungsten Tellurium

MINERALS

SIGNIFICANT: Pyrite Telluride Scheelite Wolframite
ASSOCIATED: Quartz
ALTERATION: Silica
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Breccia Disseminated
CLASSIFICATION: Epigenetic Hydrothermal
TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Lower Cretaceous
Mesozoic-Cenozoic

GROUP

Gambier

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Argillite
Rhyolite
Gneiss
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Pacific Ranges

GRADE: Greenschist

INVENTORY

ORE ZONE: SHOWING

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1986

COMMODITY

GRADE

Silver	0.6900	Grams per tonne
Gold	0.1700	Grams per tonne
Platinum	0.0690	Grams per tonne

REFERENCE: Assessment Report 15406.

CAPSULE GEOLOGY

The Slate showing is located along Ashlu Creek, southwest of Porterhouse Peak north of Squamish. The property is underlain by a small roof pendant of argillite and rhyolite correlative with the Lower Cretaceous Gambier Group and which is enclosed by quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. Intrusive rocks in this area are locally gneissic. A northwest trending fault, that parallels the Ashlu Creek drainage, strikes through the prospect area.

Mineralization, consisting of fine grained silvery sulphides and tellurides with gold, silver and platinum, occurs in two northwest trending zones parallel to Ashlu Creek. Tungsten has also been identified in drill core, occurring as both scheelite and wolframite.

Of three samples taken, the best graded 0.17 gram per tonne gold, 0.69 gram per tonne silver and 0.069 gram per tonne platinum (Assessment Report 15406).

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EM GEOFILE 2000-2; 2000-5
EMPR ASS RPT *15406, 18008
EMPR EXPL 1987-C204

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BIBLIOGRAPHY

GSC OF 482
GSC P 75-1A, pp. 37-40

DATE CODED: 1991/02/07
DATE REVISED: / /

CODED BY: CID
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 039**

NATIONAL MINERAL INVENTORY:

NAME(S): **SALAL CREEK PUMICE**

MINING DIVISION: Lillooet

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092J11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 40 55 N
LONGITUDE: 123 27 35 W
ELEVATION: 150 Metres

NORTHING: 5614558
EASTING: 467522

LOCATION ACCURACY: Within 500M

COMMENTS: Outcrops along roadcuts east of Salal Creek (Geological Survey of Canada Open File 603).

COMMODITIES: Pumice

MINERALS

SIGNIFICANT: Quartz
MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive	Stratabound	Layered	Unconsolidated
CLASSIFICATION: Volcanogenic	Syngenetic	Industrial Min.	
TYPE: R11 Volcanic ash - pumice			
DIMENSION: 3200 Metres		STRIKE/DIP:	TREND/PLUNGE:
COMMENTS: Area of pumice outcrops.			

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Recent	Garibaldi	Undefined Formation	

LITHOLOGY: Pumice

HOSTROCK COMMENTS: The Garibaldi Group is Pliocene to Recent in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The Salal Creek pumice prospect outcrops discontinuously along road cuts just east of Salal Creek and continues southeastward along the northeast side of the Lillooet River for 3.2 kilometres. The pumice, of the Pliocene to Recent Garibaldi Group, is being assessed for use in the manufacture of light weight concrete blocks, kitty litter, stonewash denim, soil conditioners and landscaping stone (F. Reyes, personal communication, 1991).

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EMPR INF CIRC 1995-9, p.20; 1996-1, p.20
GSC OF 482; *603
GSC P 75-1A; 90-1E
Anderson, R.G. (1975): The Geology of the Volcanics of the Meager Creek map area, southwestern British Columbia., unpublished B.Sc. Thesis, University of British Columbia
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Lawrence, R.B. (1979): University of British Columbia, B.Sc. thesis
WWW http://www.infomine.com/index/properties/SALAL_CREEK.html

DATE CODED: 1991/03/26
DATE REVISED: 1997/06/30

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092JW 040**

NATIONAL MINERAL INVENTORY:

NAME(S): **MOUNT MEAGER, LILLOOET RIVER PUMICE, PUM,
GREAT PACIFIC, MT. MEAGER PUMICE**

STATUS: Producer Open Pit

MINING DIVISION: Lillooet

REGIONS: British Columbia

NTS MAP: 092J11W 092J12E

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 50 40 02 N

LONGITUDE: 123 29 07 W

ELEVATION: 120 Metres

NORTHING: 5612932

EASTING: 465705

LOCATION ACCURACY: Within 500M

COMMENTS: The location of pumice exposed on the southwest slopes of the Lillooet River (Assessment Report 21854).

COMMODITIES: Pumice

Pozzolan

MINERALS

SIGNIFICANT: Quartz

MINERALIZATION AGE: Quaternary

DEPOSIT

CHARACTER: Massive

Stratabound

Layered

Unconsolidated

CLASSIFICATION: Volcanogenic

Syngenetic

Industrial Min.

TYPE: R11 Volcanic ash - pumice

DIMENSION: 2000 x 1000 x 300 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Deposit outcrops over noted area.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Recent

Garibaldi

Undefined Formation

LITHOLOGY: Pumice

Rhyodacite

HOSTROCK COMMENTS: The Garibaldi Group is Pliocene to Recent in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Overlap Assemblage

PHYSIOGRAPHIC AREA: Pacific Ranges

INVENTORY

ORE ZONE: TOTAL

REPORT ON: Y

CATEGORY: Inferred

YEAR: 1995

QUANTITY: 5000000 Tonnes

COMMODITY

GRADE

Pumice

100.0000

Per cent

COMMENTS: Possible reserves of 5 to 20 million tonnes.

REFERENCE: Information Circular 1996-1, page 20.

CAPSULE GEOLOGY

The Mount Meager pumice occurrence covers the area surrounding the confluence of Salal Creek with the Lillooet River, 5 kilometres southwest of Mount Athelstan and northwest of Pemberton.

Volcanics of the Garibaldi Group were first discovered and mapped in 1911. The pumice deposits were first held as a minerals lease by J. MacIsaac. After J. MacIsaac's death in the late 1970s a new lease was issued to W.H. Willes, who explored and exploited the deposit from the mid 1970s to the mid 1980s. The mined pumice was crushed, screened and stockpiled near Pemberton. The operation ceased when an access bridge was washed out. In 1988, L.C. Bustin staked the deposit. The property was purchased by D.R. Carefoot from owners M. Beaupre and B. Chore in 1990. The 1991-1992 program on the property consisted of evaluation for: 1) construction material (block testing for absorption, compressive strength, density and permeability), 2) stonewash feed and 3) oil absorption.

The pumice, of the Pliocene to Recent Garibaldi Group, outcrops over a length of 2000 metres and is up to 1000 metres wide. Diamond drilling indicates the deposit is up to at least 300 metres thick. The pumice deposit is a volcanic ejecta. The vent is assumed to have been within the Lillooet Valley on the north side of Plinth Peak, with depositional distribution along a northeast plume axis of about 63 degrees, defined by distal and proximal deposits of the Mount Meager volcanic complex. The pumice deposit forms part of the Bridge

CAPSULE GEOLOGY

River ash unit of the Mount Meager volcanic complex. Significant deposits occur on the west facing slopes and valleys along the Lillooet River. The Bridge River ash is described as a crudely stratified breccia with ash deposits up to 20 metres thick. Over 90 per cent of the fragments are cream weathering, porphyritic (hornblende, plagioclase and pyroxene) dacite pumice. The fragments range in maximum size from 10 centimetres to 4 metres.

At the Mount Meager occurrence, the pumice is yellowish grey, weathering to creamy white. It has a density of 860 kilograms per cubic metre. The pumice consists of coarse textured ellipsoidal fragments ranging from 25 to 150 millimetres diameter. The deposit is a well sorted rhyodacitic pumice composed of plagioclase phenocrysts in a frothy cellular groundmass. Black hornblende and biotite flecks are present in minor amounts. The pumice was deposited on a steep paleoslope of bedrock covered by sandy clay tills. The pumice deposit has been partially covered by lahar, slides and/or a thin soil veneer. Internal stratification consists of a band of finer pumice. 0.5 to 1.5 millimetres diameter, approximately 2.6 metres below the upper depositional surface.

In 1992, construction material evaluation was conducted by B.H. Levelton & Associates. Their report concluded that the quality and performance of the pumice was similar to Bend, Oregon pumice (Assessment Report 22669). The results of stonewash testing in 1992 is as follows:

Moisture Content	0.1 %
Abrasion Loss	31.3 %
Apparent Density	0.77 g/cm3
Absorption Capacity	21.2 %
Saturated Density	0.98 g/cm3

Surface Coloration light grey (< 5% FeO)

The results were summarized as marginal for stone-washing and average for acid-washing (Assessment Report 22669, Appendix III). The results of whole rock geochemical analysis are as follows:

Al2O3	15.27 %	Ba	720 ppm
CaO	3.26 %	Nb	10 ppm
Fe2O3	3.37 %	Rb	55 ppm
K2O	2.55 %	Sr	480 ppm
MgO	1.31 %	Y	30 ppm
Na2O	4.59 %	Zr	120 ppm
P2O5	0.18 %	Co	3 ppm
SiO2	67.16 %	Cu	35 ppm
TiO2	0.48 %	Ni	6 ppm
LOI	2.75 %		
TOTAL	101.00 %		
CO2(inorg)	<0.2 %		
S(total)	0.013%		
+H2O	3.40 %		
-H2O	0.23 %		

(Assessment Report 22669, Petrographic and Sampling Report). The results of oil absorption testing indicate a 1.5 pumice-to-oil ratio by volume (Assessment Report 22669). The pumice appears to have a commercial application, primarily as concrete aggregate used in the manufacture of light-weight concrete and concrete blocks. A secondary application is for the stone-wash of denim clothing (Assessment Report 22669).

Due to delays in permitting and the lateness in the season, Great Pacific Pumice Inc. postponed its production of pumice until June 1996. The property has possible reserves of 5 to 20 million tonnes. A 20-year mine and reclamation plan has been approved and a Mine Development Certificate granted in the spring of 1995 (Information Circular 1996-1, page 20).

In 1998, Great Pacific extracted between 7000 and 8000 cubic metres of pumice. Most of the product goes to horticulture suppliers. There is also potential for pumice as a light weight aggregate filler in the construction industry. Mt. Meager Pumice Products Ltd. supplies Canadian Pumice Stones to a variety of clients.

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GSC OF 482; *603
GSC P 75-1A; 90-1E
CANMET IR MRP/MSL 78-206 (IR)

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DATE CODED: 1991/03/26
DATE REVISED: 1998/12/04

CODED BY: PSF
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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REPORT: RGEN0100

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EMPR FIELDWORK *1994, pp.365-369
EMPR OF 1994-1
GSC MAP 1836A
GSC OF 482
WWW <http://www.ceramstone.com/margranite>

DATE CODED: 1993/12/02
DATE REVISED: 1997/02/13

CODED BY: GO
REVISED BY: ZDH

FIELD CHECK: N
FIELD CHECK: Y

MINFILE NUMBER: **092JW 042**

NATIONAL MINERAL INVENTORY:

NAME(S): **ENGINEER**, HAG, DON

MINING DIVISION: Lillooet

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092J11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 35 35 N
LONGITUDE: 123 01 16 W
ELEVATION: 1372 Metres

NORTHING: 5604573
EASTING: 498506

LOCATION ACCURACY: Within 500M

COMMENTS: The centre of the Engineer 1 to 4 claims (Assessment Report 23623).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ALTERATION: Silica Clay
ALTERATION TYPE: Silicific'n Oxidation Leaching
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Shear Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins
DIMENSION: Metres STRIKE/DIP: TREND/PLUNGE: 315/
COMMENTS: Mineralized quartz feldspar porphyry dikes trend northwest.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Cadwallader	Undefined Formation	

LITHOLOGY: Andesite
Andesite Tuff
Andesite Flow
Quartz Feldspar Porphyry Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Pacific Ranges
TERRANE: Cadwallader
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1994
SAMPLE TYPE: Chip
COMMODITY GRADE
Copper 0.1000 Per cent
COMMENTS: Chip sample Eng94-RC23 across 3.5 metres of quartz feldspar porphyry.
REFERENCE: Assessment Report 23623.

CAPSULE GEOLOGY

The Engineer showing is located at Railroad Creek gorge on Railroad Creek, 7.5 kilometres north of its confluence with the Lillooet River.

The eastern half of the Engineer claims, previously staked as the Hag claims, was explored in 1983 by Canadian Nickel Company Ltd. In the same year Noranda Exploration Co. Ltd. explored two gossan zones to the immediate west on the Don claims. An exploration program was conducted at the bottom of Railroad gorge in 1989. The program consisted of soil, rock chip and stream sediment sampling and detailed geological mapping. The claim geology was mapped in 1993 by J. Riddell. The current owners and operators of the Engineer claims are R. Jordan and P. Jordan.

The Engineer showing is hosted regionally by volcanic flows and tuffs of the Upper Triassic Cadwallader Group. These rocks form part of a roof pendant within intrusions of the Jurassic to Cretaceous Coast Plutonic Complex.

Pyrite and rusty gossan alteration are abundant along a shear/fault zone exposed in the Railroad Creek gorge. The hostrocks are altered andesites and northwest trending, quartz feldspar porphyry dikes.

In 1994, 16 channel samples were taken continuously over 10

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RUN TIME: 09:30:14

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CAPSULE GEOLOGY

metres of silicified andesite and quartz feldspar porphyry dikes with abundant pyrite. Several old bulldozer trenches and cuts were also resampled on the east side of the property. The most encouraging copper values are associated with altered andesite. The best results obtained were from sample Eng94-RC23, a chip sample across 3.5 metres of silicified quartz feldspar porphyry containing pyrite and chalcopyrite. The sample yielded 0.10 per cent copper (Assessment Report 23623).

BIBLIOGRAPHY

EMPR ASS RPT 11474, 11496, 19290, 23137, *23623
EMPR RGS 09
GSC OF 482
GSC SUM RPT 1924, Part A, pp. 76-99

DATE CODED: 1997/06/30
DATE REVISED: / /

CODED BY: KJM
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 001**

NATIONAL MINERAL INVENTORY:

NAME(S): **TOBA INLET**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K08W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 28 09 N
LONGITUDE: 124 22 31 W
ELEVATION: 30 Metres

NORTHING: 5591700
EASTING: 402402

LOCATION ACCURACY: Within 500M

COMMENTS: Located on Chusan Creek at the head of Toba Inlet (Canada Bureau of Mines Report No. 811).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A large deposit of fine-grained, siliceous blue limestone is reported to be exposed on both sides of Chusan Creek, which enters the east side of Toba Inlet near its head (Bureau of Mines Report No. 811). The area is underlain by Lower Cretaceous Gambier Group rocks including greenstone, argillite, conglomerate, limestone and schist (Geological Survey of Canada Open File 480).

BIBLIOGRAPHY

CANMET RPT *811, p. 160
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: 1989/05/19

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 002**

NATIONAL MINERAL INVENTORY:

NAME(S): **WEST REDONDA ISLAND**

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:
LATITUDE: 50 17 10 N
LONGITUDE: 124 51 05 W
ELEVATION: 5 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Just northwest of Lot 3439.

Open Pit

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

NORTHING: 5572082
EASTING: 368110

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Carbonate Calcite Brucite
ASSOCIATED: Dolomite Calcite
ALTERATION: Hydromagnesite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Disseminated Massive
CLASSIFICATION: Sedimentary Replacement Industrial Min.
TYPE: R09 Limestone
SHAPE: Tabular
MODIFIER: Sheared
DIMENSION: 30 Metres STRIKE/DIP:
COMMENTS: Two limestone units, each about 30 metres wide.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Limy Dolomite
Granite

HOSTROCK COMMENTS: The limestone is from either the Quatsino Formation or the Karmutsen Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Syn-mineralization
GRADE:

CAPSULE GEOLOGY

At various locations along Georgia Strait, the granitic intrusions of the Coast Plutonic Complex contain inclusions or roof pendants of limestone. The limestones are generally of limited size and may belong to either the Quatsino Formation or the Karmutsen Formation, both of the Upper Triassic Vancouver Group.

About 1.2 kilometres west of Gloucester (George) Point on West Redondo Island, two limestones each about 30 metres wide, are exposed along the shore about 100 metres northwest of the west corner of Lot 3439. Other smaller occurrences are exposed less than a kilometre west and northwest of Lot 3439.

The main limestones to the east were quarried in the 1920's and are exposed from sea level to over 200 metres elevation on the precipitous slope. It is bounded by a green intrusive rock which is in turn enclosed by a light coloured, hornblende granite. The limestone is white and grey, medium to coarse-grained with a locally mottled texture. A shear-related lamination occurs within a section of white limestone.

Brucite occurs within zones as 1 to 3 millimetre granules, particularly in the eastern margin of the limestone where it constitutes about thirty per cent of the rock. Brucite grains have a concentric structure and most are surrounded by white dolomite within a calcite matrix. Tiny, rounded serpentine grains constitute the main impurity although much of the brucitic limestone is free of it. On land, brucite alters to white hydromagnesite which readily dissolves and leaves a typically pitted surface. Brucitic limestone exposed to seawater is prone to having the calcite groundmass dissolved leaving brucite standing out in relief.

CAPSULE GEOLOGY

In 1944, Goudge collected Sample 23 across the entire width of the quarry, including the brucitic and non-brucitic limestone. Sample 23A was collected across about 6 metres of brucitic limestone:

	MgO	CaO	Fe2O3	Al2O3	SiO2	CO2	Water + 105 C
Sample 23	9.22	46.27	0.32	0.22	1.28	39.94	2.94
Sample 23A	20.50	37.21	0.18	0.05	0.48	34.60	6.48

BIBLIOGRAPHY

EMPR AR 1919-215; 1920-216; 1926-314
EMPR BULL 23, pp. 100,101; 40, pp. 92,93
EMPR OF 1987-13, pp. 50,51; 1992-18
GSC MAP 1386A
GSC OF 480
CANMET REPORT 452, Vol.5, p. 162; 811, pp. 127,161-163

DATE CODED: 1985/07/24
DATE REVISED: 1989/10/20

CODED BY: GSB
REVISED BY: PSF

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 003**

NATIONAL MINERAL INVENTORY:

NAME(S): **PRYCE CHANNEL**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 19 01 N
LONGITUDE: 124 51 58 W
ELEVATION: 20 Metres

NORTHING: 5575536
EASTING: 367147

LOCATION ACCURACY: Within 500M

COMMENTS: Exposed in the bed of a stream which enters Pryce Channel (Geological Survey of Canada Memoir 23, page 66).

COMMODITIES: Marble Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratiform
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R04 Dimension stone - marble

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Unknown
Mesozoic-Cenozoic

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Marble
Diorite

HOSTROCK COMMENTS: Marble is exposed in an area underlain by diorite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Marble is exposed in the bed of a stream which enters Pryce Channel, about 1.2 kilometres west of Elizabeth Island (Geological Survey of Canada Memoir 23). The area is underlain by diorite of the Mesozoic to Eocene Coast Plutonic Complex (Geological Survey of Canada Open File 480).

BIBLIOGRAPHY

EMPR BULL 23, p. 100; 40, p. 93
GSC MAP 1386A
GSC MEM *23, pp. 66,67
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/13

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 004**

NATIONAL MINERAL INVENTORY:

NAME(S): **BOLD POINT**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 33 N
LONGITUDE: 125 10 25 W
ELEVATION: 200 Metres

NORTHING: 5560442
EASTING: 344799

LOCATION ACCURACY: Within 1 KM

COMMENTS: Reported to be 1.6 kilometres northwest of Bold Point on Lot 4 (Bulletin 40).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Carbonate
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratiform
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Mesozoic-Cenozoic

GROUP

Vancouver
Vancouver

FORMATION

Parson Bay
Quatsino

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Granitic Rock

HOSTROCK COMMENTS: The formation to which the limestone belongs is not known. The above formations occur nearby (Geological Survey of Canada Open File 463).

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Limestone

YEAR: 1956

GRADE: 53.3500 Per cent

COMMENTS: This percentage is for lime (CaO).
REFERENCE: Bulletin 40, pages 93, 94.

CAPSULE GEOLOGY

Two or more bodies of bluish grey limestone form a 300 metre long, 60 metre wide northeast trending belt in granitic rocks of the Tertiary-Cretaceous Coastal Plutonic Complex on Lot 4, 1.6 kilometres north of Bold Point on the east side of Quadra Island. A composite of six chip samples taken from various parts of the limestone belt analyzed as follows: 53.35 per cent CaO, 0.72 per cent MgO, 4.60 per cent insolubles, 0.59 per cent R2O3, 0.10 per cent Fe2O3, 0.01 per cent MnO, 0.03 per cent P2O5, 0.02 oper cent sulphur and 40.23 per cent ignition loss (Bulletin 40, pages 93, 94)

A few tonnes of limestone are reported to have been quarried from here before 1925.

BIBLIOGRAPHY

EMPR BULL 23, pp. 101,102; *40, p. 93
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23,41-44;
73-1A, pp. 42,43
CANMET RPT 811, Part 5, p. 161

DATE CODED: 1985/07/24
DATE REVISED: 1989/04/14

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 004**

MINFILE NUMBER: **092K 005**

NATIONAL MINERAL INVENTORY:

NAME(S): **OPEN BAY LIMESTONE**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 24 N
LONGITUDE: 125 12 32 W
ELEVATION: 91 Metres

NORTHING: 5556533
EASTING: 342163

LOCATION ACCURACY: Within 5 KM

COMMENTS: Limestone interbedded with volcanic rocks occurs in a belt 1.2 kilometres wide and extends northwest from Open Bay on Quadra Island (Bulletin 40, page 82).

COMMODITIES: Limestone

MINERALS

SIGNIFICANT: Calcite
ASSOCIATED: Clay Silica
MINERALIZATION AGE: Upper Triassic

DEPOSIT

CHARACTER: Stratiform Massive Layered
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Quatsino	
DATING METHOD: Fossil			
MATERIAL DATED: Hannaoceras (Polycyclus)			
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Argillaceous Limestone
Amygdaloidal Andesite
Limestone
Granite Dike
Granite
Granite Sill

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell Plutonic Rocks PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1957
SAMPLE TYPE: Chip
COMMODITY: Limestone GRADE: 51.6900 Per cent
COMMENTS: 51.69 per cent CaO
REFERENCE: Bulletin 40, page 84.

CAPSULE GEOLOGY

The western half of Quadra Island lies within the Insular belt and is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation, Vancouver Group. These are interbedded with, and overlain to the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group. The eastern half of Quadra Island lies within the Coast Crystalline belt and is mainly underlain by Juro-Cretaceous intrusive rocks of the Coast Plutonic Complex. These rocks are in fault and/or intrusive contact with the Insular rocks along a northwest trending zone from Open Bay to Granite Bay. The Open Bay Limestone consists of predominantly argillaceous limestone of the Upper Triassic Quatsino Formation interbedded with and overlying ellipsoidal and amygdaloidal andesite of the Upper Triassic Karmutsen Formation. The lowest limestone member is poorly exposed at the west end of Open Bay but well exposed about 1.6 kilometres inland where it exceeds 30 metres in thickness. At the shore it dips 30 degrees eastward and is overlain by 106 metres of

CAPSULE GEOLOGY

ellipsoidal and massive andesite. This is overlain by 15 metres or less of limestone which in turn is overlain by 61 metres of andesite. Possibly as much as 152 metres of steeply dipping limestone and at least one andesite body are incompletely exposed in the next bay to the east. East of this bay, intensely folded argillaceous limestones and pillow lava are exposed in a belt about 609 metres wide bounded on the east by intrusive granitic rocks.

The prevailing dip of the rocks throughout Open Bay is northeast. The extreme folding of the sediments in the eastern half of the bay, however, obscures the general structure. Granitic dykes up to a metre wide and lenticular sills a few centimetres to a metre wide are common. The contact with the granitic rocks at the northeast edge of the belt is irregular but follows in general a relatively straight line northwest across the island, truncating the limestone belt at an acute angle.

The limestone is generally black and granular and emits a distinct odour of hydrogen sulphide when broken. Fine laminae of argillaceous impurities are distributed throughout the rock. Several samples were taken across the northeastern folded belt along the shore of Open Bay. One sample analyzed (in per cent): CaO 51.69, MgO 0.64, MnO 0.025, Fe₂O₃ 0.29, R₂O₃ 0.50, Insol. 5.08, P₂O₅ 0.095, S 0.13, Ig. Loss 41.39 and H₂O 0.06 (Bulletin 40, page 84).

The limestone in the upper part of the section is high in insoluble matter whereas the lowest belt of limestone is of a better grade.

BIBLIOGRAPHY

- EMPR AR 1907-L160; 1910-K158; 1911-K205; 1913-K284; 1921-G225
EMPR BULL *23, pp. 88-91; *40, pp. 82-84
EMPR OF 1992-18, pp. 37, 41-42
GSC MAP 1386A
GSC MEM 23, 146 pp.
GSC OF 463, Sheet 2; 480
GSC SUM RPT 1913, pp. 58-75
CANMET RPT 811, Part 5, p. 161
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 169

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 006**

NATIONAL MINERAL INVENTORY: 092J3 Au3, Ag1

NAME(S): **YUCTAW**, POODLE DOG, CHANNE ISLAND

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 27 17 N
LONGITUDE: 125 19 59 W
ELEVATION: 100 Metres

NORTHING: 5591792
EASTING: 334388

LOCATION ACCURACY: Within 1 KM

COMMENTS: This property is known only to be in the area of O92K06W.

COMMODITIES: Gold Iron Molybdenum

MINERALS

SIGNIFICANT: Sulphide Pyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Epigenetic Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Channe Island showing is located in Cordero Channel north of East Thurlow Island. The showing is composed of the Yuctaw and Poodle Dog workings on the island. The workings date back to 1896 when 24.4 metres of "tunnel on good ore" was recorded for the Poodle Dog (Minister of Mines Annual Report 1896, page 554).

The island is underlain by quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. The showing is composed of "iron pyrites" in three quartz veins, up to 6.5 metres wide, two of which are "banded" (Minister of Mines Annual Report 1929, page 389). The significance of this showing is related to its similarity in deposit type to the White Pine (092K 036) and Hope (092K 018) gold past producers on East Thurlow Island.

BIBLIOGRAPHY

EMPR AR 1896-554,562; 1898-1138,1142,1146; 1899-806,808; 1902-237;
*1929-389
EMPR ASS RPT *17274
GSC MAP 65A; 169A; 1386A
GSC MEM 23, p. 146
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/15

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 007**

NATIONAL MINERAL INVENTORY: 092K3 Cu6

NAME(S): **BLUEBIRD**, STEEP ISLAND, TANNER,
TRUE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

LATITUDE: 50 04 44 N
LONGITUDE: 125 15 05 W
ELEVATION: 1 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5549830
EASTING: 338921

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description, Minister of Mines Annual Report 1914, page 382.

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stratabound
CLASSIFICATION: Replacement
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Basalt
Andesitic Flow
Basalt Flow

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Bulk Sample

YEAR: 1909

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	15.0832	Grams per tonne
Copper	3.0600	Per cent

COMMENTS: Shipment of unknown size.

REFERENCE: Minister of Mines Annual Report 1914, page 382.

CAPSULE GEOLOGY

The Bluebird copper occurrence is located on the southern half of Steep Island within Gowland Harbour of Quadra (formerly Valdes) Island. Numerous cuts and shallow pits cover an area of about 183 metres long by 83 metres wide. The occurrence is situated in a series of Upper Triassic Karmutsen Formation flat-lying ash beds or flows of andesitic to basaltic composition. The beds have a slight dip towards the south or southeast and vary in texture from a porous amygdaloidal structure to a fine-grained compact rock. The mineralization, chalcocite, occurs along zones of shearing or faulting. It occurs disseminated as small particles throughout the rock, varying in quantity according to the porous nature, and in a more concentrated form as replacement fillings of amygdaloidal cavities.

A shipment of unknown size was made from the Bluebird occurrence in 1909 to the Tyee smelter with the following result: 3.06 per cent copper and 15.08 grams per tonne silver (Minister of Mines Annual Report 1914, page 382). A certain amount of selecting may have been done to raise the grade of the shipment since all other assay values fall below this grade.

BIBLIOGRAPHY

EMPR AR 1906-203; 1907-153,160; *1914-381,382; *1916-346,349;
1926-314; 1930-306
EMPR ASS RPT *2275

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 941
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR GEM 1970-281
GSC MAP 1386A
GSC MEM 23, p. 127
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/12

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 008**

NATIONAL MINERAL INVENTORY: 092K2 Cu1

NAME(S): **OK NORTH**, O.K., O.K. NORTH,
 O.K. SOUTH, IN, DEE,
 NORTH, OK

STATUS: Developed Prospect
 REGIONS: British Columbia
 NTS MAP: 092K02E
 BC MAP:
 LATITUDE: 50 02 31 N
 LONGITUDE: 124 39 04 W
 ELEVATION: 870 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: North Lake zone, located east of Okeover Inlet and south of Theodosia Inlet in the Bunster Hills (Canadian Institute of Mining and Metallurgy Special Volume 15). See also OK South (092K 057).

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5544600
 EASTING: 381776

COMMODITIES: Copper Molybdenum Zinc

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite Sphalerite Bornite
 ASSOCIATED: Magnetite
 ALTERATION: Malachite Azurite Limonite Chlorite Epidote
 ALTERATION TYPE: Oxidation Argillic Sericitic Propylitic
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stockwork Disseminated Vein
 CLASSIFICATION: Porphyry Hydrothermal
 TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex
Tertiary			Unnamed/Unknown Informal

LITHOLOGY: Granodiorite
 Leucocratic Feldspar Porphyry
 Quartz Monzonite
 Quartz Porphyry Dike
 Diorite Dike
 Andesite Dike

HOSTROCK COMMENTS: The informal O.K. intrusive complex is assumed to be Tertiary or younger.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: OK REPORT ON: Y

CATEGORY: Combined YEAR: 1989
 QUANTITY: 104900000 Tonnes
 COMMODITY GRADE
 Copper 0.4600 Per cent
 Molybdenum 0.0280 Per cent

COMMENTS: "Proven plus probable resource, recoverable by a selective open pit mining operation". At a 0.4 per cent copper equivalent cutoff.
 REFERENCE: WWW <http://www.canquest.bc.ca/ok.htm>.

QUANTITY: 408000000 Tonnes
 COMMODITY GRADE
 Copper 0.2400 Per cent
 Molybdenum 0.0090 Per cent

COMMENTS: "Drill indicated and geological potential resources" in 7 mineralized zones over a 5-kilometre distance.
 REFERENCE: WWW <http://www.canquest.bc.ca/ok.htm>.

INVENTORY

ORE ZONE: O.K. REPORT ON: Y

CATEGORY:	Combined	YEAR:	1991
QUANTITY:	68000000 Tonnes		
COMMODITY		GRADE	
Copper		0.3900	Per cent
Molybdenum		0.0200	Per cent

COMMENTS: In situ reserves/possible resources at a 0.3 per cent copper cutoff grade. Reserves are contained in several zones.

REFERENCE: N.C. Carter, personal communication, 1991.

CAPSULE GEOLOGY

The OK North deposit is located east of Okeover Inlet and south of Theodosia Inlet in the Bunster Hills. Powell River is located about 25 kilometres to the south. The North zone is located near a small lake known as North Lake. The South Breccia zone (092K 057), lies 2.3 kilometres to the south.

Since its discovery in 1965, the O.K. property has been explored by a number of geological, geochemical and geophysical surveys and by more than 14,000 metres of percussion and diamond drilling. This work outlined several copper-molybdenum mineralized zones over a northerly trend of five kilometres length. Between 1966 and 1985, several companies (Asarco Exploration Company of Canada Limited, Falconbridge, Granite Mountain Mines, Western Mines, Aquarius Resources Limited) carried out the exploration work. In 1994, CanQuest Resource Corporation optioned the property and conducted geological, geophysical and geochemical surveys and drilling.

Two phases of intrusions occur within the Jurassic to Cretaceous Coast Plutonic Complex. Granodiorite is intruded by an elliptical, 1.6-kilometre long quartz monzonite body, referred to as the O.K. intrusive complex and assumed to be Tertiary or younger in age. The leucocratic feldspar porphyry dike-like body is elongated north-northwest, varies from 30 to 600 metres in width, and has been inferred to be the core of the larger variably altered granodiorite body. At least six phases of intrusions have been noted on the property, characteristic of many porphyry deposits. Later phases include narrow quartz-eye porphyries and postmineral diorites, which occur as north-northeasterly dikes. They vary from 1 to 60 metres in width. Discontinuous andesite dikes represent the latest intrusive phase. Rocks in the vicinity of the O.K. South exhibit moderate to strong phyllic and argillic alteration. Elsewhere on the property, alteration is less intense and consists predominantly of propylitic alteration to chlorite and epidote. Post-mineralization, north-northwest trending faults cut both granitic rocks of the Coast Plutonic Complex and the younger O.K. intrusive complex.

Mineralization occurs in fractures, quartz stringers, irregular veinlets, blebs and some disseminations. Mineralization of economic significance is primarily peripheral to the leucocratic feldspar porphyry in the granodiorite. Sulphide minerals include chalcopyrite, molybdenite and pyrite with minor sphalerite and bornite. Minor magnetite is associated erratically with pyrite and chalcopyrite. Thin veneers of malachite, limonite and azurite are also noted.

In situ reserves/possible resources at a 0.3 per cent copper cutoff grade are 68 million tonnes grading 0.39 per cent copper and 0.02 per cent molybdenum (N.C. Carter, personal communication, 1991).

A geostatistical study in 1982 of all drill hole data that included seven mineralized zones (over a distance of 5 kilometres) for which sufficient data were available, estimated that drill indicated and geological potential resources combined were 408,000,000 tonnes of greater than 0.24 per cent copper and 0.009 per cent molybdenum (CanQuest website). An independent report prepared in 1989 for CanQuest further refined the 1982 geostatistical analysis to provide a "proven plus probable resource, recoverable by a selective open pit mining operation" as 104,900,000 tonnes of 0.46 per cent copper and 0.028 per cent molybdenum, at a 0.4 per cent copper equivalent cut-off (CanQuest website).

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EMPR ASS RPT 1573, 2594, 2595, 5026, 6846, *8748, *9520, *10577, *11162, *23551, 24038, 24553, 25068, 25594
EMPR EXPL 1975-G53; 1977-E172; 1980-264; 1982-220,221; 2002-29-40
EMPR FIELDWORK 1975, p. 44
EMPR GEM 1970-229; 1971-313; 1972-284; 1974-201
EMPR MAP 65 (1989)
EMPR OF 1992-1

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EMPR PF (Randall, A.W. (1974): Report on the Diamond Drill Project on the OK Property; Meyer, W., Gale, R.E. and Randall, A.W.: The O.K. Property, undated Report, probably 1974; OK Project, Explore B.C. Application, May 25, 1996; Canquest Resource Corporation Website (Mar.,Nov. 1999): OK Property, 3 p.; Canquest Resource Corporation Corporate Profile handout from PDAC 2000, 9 p.)
EMR MIN BULL MR 223 B.C. 165
CIM Special Volume *15, pp. 311-316
GCNL #135,#175, 1968; #240, 1973; #241, 1974; #15, 1975; #109, #168, 1976; #121,#181, 1977; #177, 1979; #76, 1980; #150, 1981; #26, 1983; #212, 1984
N MINER Sept.12,27, 1979; Aug.20, 1981; Feb.17,24, 1983
PR REL CanQuest Resource Corporation, February 1, April 14, 1999; June 8, 1999; Eastfield Resources Ltd., Mar.6, 2003
WWW <http://www.canquest.bc.ca/ok.htm>; <http://www.infomine.com/>
Falconbridge File

DATE CODED: 1985/07/24
DATE REVISED: 1999/03/19

CODED BY: GSB
REVISED BY: LDJ

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 945
REPORT: RGEN0100

MINFILE NUMBER: **092K 009**

NATIONAL MINERAL INVENTORY: 092K3 Cu1

NAME(S): **WANDERER**, WHY0, AJAX

STATUS: Developed Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 24 N
LONGITUDE: 125 18 11 W
ELEVATION: 240 Metres

NORTHING: 5562295
EASTING: 335606

LOCATION ACCURACY: Within 500M

COMMENTS: Located 2.0 kilometres east of Deepwater Cove near the head of a small creek that flows between high precipitous banks (Minister of Mines Annual Report 1921). May be the same occurrence as the Ajax (092K116).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Chalcocite Bornite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Basalt
Argillite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: DUMP

REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1922
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	61.7100 Grams per tonne
Copper	15.5500 Per cent

REFERENCE: Minister of Mines Annual Report 1922, page 240.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation basalts of the Vancouver Group. A shear zone occurs along the contact of volcanic rock and metamorphosed argillite. Mineralization is principally chalcopyrite within a quartz gangue. Chalcocite and bornite also occur.

Up to 55 metres of underground development work was completed on the Wanderer up to 1922. A sample taken from the dump assayed 15.5 per cent copper, 61.71 grams per tonne silver and trace gold (Minister of Mines Annual Report 1922).

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EMPR AR 1899-807; 1902-236; 1907-160; *1920-216; *1921-224; *1922-240; 1926-314; 1927-352; 1930-306; 1928-382
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/11

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 009**

MINFILE NUMBER: **092K 010**

NATIONAL MINERAL INVENTORY: 092K3 Au2

NAME(S): **GEILER (L.1369)**

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 50 11 28 N
LONGITUDE: 125 15 40 W
ELEVATION: 90 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5562327
EASTING: 338604

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of the Geiler claim (L.1369) located about halfway between Granite Bay and Open Bay.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite Pyrite Arsenopyrite Gold

Sylvanite Telluride

ASSOCIATED: Quartz Calcite Magnetite

ALTERATION: Garnet Amphibole Epidote Magnetite

ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein Breccia Massive
CLASSIFICATION: Skarn Hydrothermal Epigenetic Replacement
TYPE: K01 Cu skarn I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Porphyritic Andesite
Amygdaloidal Andesite
Limestone
Greenstone
Feldspar Porphyry Dike

HOSTROCK COMMENTS: Skarn mineralization occurs at the volcanic-limestone contact.
A silicified shear occurs in andesite.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1938
SAMPLE TYPE: Chip
COMMODITY: Gold GRADE: 8.9000 Grams per tonne

COMMENTS: From a 1.5 metre chip.
REFERENCE: Property File, Stevenson, J.S. (1938): Report on the Geiler Group.

CAPSULE GEOLOGY

The western half of Quadra Island lies within the Insular belt and is underlain primarily by andesitic volcanics of the Upper Triassic Karmutsen Formation, Vancouver Group. These are interbedded with and overlain to the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group.

The eastern half of Quadra Island lies within the Coast Crystalline belt and is mainly underlain by Jurassic to Tertiary intrusive rocks of the Coast Plutonic Complex. These granitic rocks are in fault and/or intrusive contact with the Insular rocks along a northwest trending zone from Open Bay to Granite Bay.

In the vicinity of the Geiler workings, fine-grained, porphyritic and amygdaloidal varieties of andesite predominate. Andesite and limestone occur in small lenses within the volcanic rocks. Both the lime rocks and the volcanics have been intruded by granitic rocks and outcrop approximately 1.2 kilometres northeastward from the Geiler workings.

CAPSULE GEOLOGY

The most abundant rock types comprise a group of greenstones. The predominant greenstone is a dark green, fine-grained andesite, some phases of which are porphyritic and contain phenocrysts of hornblende. One outcrop exposes amygdaloidal greenstone that strikes 140 degrees and dips northeast. Also in the vicinity, greenstone schist, containing some biotite, outcrops. This schist strikes 150 degrees and dips 40 degrees northeast.

Pods of white crystalline limestone occur occasionally in the greenstones. The most conspicuous band is in the vicinity of the silicified breccia-shear zone. In the vicinity of the main workings on the breccia-shear zone, irregular feldspar porphyry dykes are common. They intrude the greenstones and contain many angular xenoliths of these rocks. The dykes are dark grey in color and contain small, but conspicuous phenocrysts of feldspar (Stevenson, J.S., 1938).

D.D. Cairnes (Geological Survey of Canada Summary Report 1913), describes three types of deposits on the Geiler.

1) Skarn-type mineralization, which was developed by a 9 metre shaft, (as of 1913) is composed mainly of garnet, amphibole, epidote, quartz and calcite, throughout which occurs sparsely disseminated pyrite, arsenopyrite, chalcopyrite, pyrrhotite and magnetite. Occasional particles of native gold were also reported. One sample assayed 1.0 gram per tonne gold (Minister of Mines Annual Report 1913). Elsewhere two shallow pits about 30 metres apart examined masses of ore material from 2 to 3 metres in width consisting dominantly of pyrrhotite with some disseminated chalcopyrite. The strike of the ore material appears to be the same in both pits, about 075 degrees, which indicates one continuous deposit.

2) A vein-like deposit of quartz and calcite as much as 0.9 metres thick within greenstone was explored by a 5.5 metre shaft. The vein material contained sparsely disseminated chalcopyrite, pyrrhotite and pyrite.

3) A silicified shear-breccia zone occurs traversing the andesitic volcanics and is at least 6 to 9 metres wide and traceable for over 150 metres. Throughout this zone the volcanics are extremely broken and shattered and the rock fragments are cemented mainly by quartz. Veinlets and stringers of quartz from 2 to 15 centimetres in width also cut the volcanic rocks. The quartz appears to constitute up to half of the rock mass in places and is sparsely mineralized showing only occasional particles of pyrite, chalcopyrite, native gold and a dark lustrous telluride identified as sylvanite. One 1.5 metre sample across the dip of numerous quartz stringers in greenstone assayed 8.9 grams per tonne gold (Stevenson, J.D., 1938). One chip across 30 centimetres of decomposed and oxidized shear assayed 48.0 grams per tonne gold and 0.4 per cent copper (Stevenson, J.D., 1938).

The Geiler produced (1940-1941) 1897 grams of gold, 497 grams of silver and 229 kilograms of copper from a total of 108 tonnes mined.

BIBLIOGRAPHY

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1940-28; 1941-28
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EMPR PF (*Special Report on the Geiler Group for the Minister of Mines
Annual Report by J.S. Stevenson, 1938)
GSC MAP 120A; 1386A
GSC MEM 23, p. 134
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/04

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 011**

NATIONAL MINERAL INVENTORY:

NAME(S): **INCA**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 07 06 N
LONGITUDE: 125 14 04 W
ELEVATION: 30 Metres

NORTHING: 5554178
EASTING: 340264

LOCATION ACCURACY: Within 1 KM

COMMENTS: The showings are reported to be about 152 metres west of Hyacinthe Bay at an elevation of 30 metres (Minister of Mines Annual Report 1930, page A306).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

At the Inca occurrence a well defined quartz vein 0.6 to 1.8 metres in width cuts the andesite and is mineralized with pyrite and chalcopyrite. A portion of the vein on one wall is rose quartz.

The quartz vein has been explored by an open cut and shallow shaft.

BIBLIOGRAPHY

EMPR AR *1929-C390; *1930-A306
EMPR ASS RPT 3522
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 012**

NATIONAL MINERAL INVENTORY: 092K3 Cu5

NAME(S): **COPPER CLIFF**, COPPER BELL, COPPER CLIFF ADIT,
RAIN, POMEROY

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 50 06 03 N
LONGITUDE: 125 16 20 W
ELEVATION: 31 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5552314
EASTING: 337505

LOCATION ACCURACY: Within 500M

COMMENTS: Adit, 4 kilometres west of the village of Heriot Bay, 50 metres east from the shoreline of Discovery Passage (Assessment Report 5076).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite Copper Bornite
ASSOCIATED: Quartz Calcite Pyrite
COMMENTS: Mineralization is in amygdules, fractures and disseminated in host rock. Pyrite is rare.

ALTERATION: Chlorite Malachite Azurite Cuprite
ALTERATION TYPE: Chloritic Oxidation
MINERALIZATION AGE: Unknown
ISOTOPIC AGE: DATING METHOD: Unknown MATERIAL DATED:

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu
DIMENSION: 2 Metres STRIKE/DIP: 140/30S TREND/PLUNGE:
COMMENTS: Attitude of andesite flows.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE: Upper Triassic
GROUP: Vancouver
FORMATION: Karmutsen
IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: COPPER CLIFF REPORT ON: Y
CATEGORY: Inferred YEAR: 1973
QUANTITY: 272130 Tonnes
COMMODITY: Copper GRADE: 3.0500 Per cent
REFERENCE: Property File - in 092K 071, Sheppard, E.P. (1973).

CAPSULE GEOLOGY

The Copper Cliff occurrence is located on the western side of Quadra Island near Gowland Bay. The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence

CAPSULE GEOLOGY

(092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The Copper Cliff occurrence was first explored in 1919 when a small adit was driven on high grade copper mineralization. The first extensive exploration program was carried out in 1952-53 by Dodge Copper Mines and included 2682 metres of diamond drilling in 145 holes. An ore shipment was made to the Britannia mill in 1963. Quadra Mining Company Ltd. produced copper from an in situ bioleaching test in 1968 from the Pomeroy zones (092K 071,072). A mine permit was granted in 1973 but low copper prices and unfavourable political climate prevented commencement of production.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group. The area is underlain by Tertiary volcanic rocks of the Calden series that dip gently to the southeast. The amygdaloidal andesitic to basaltic flows range in thickness from 0.30 to 3.65 metres interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The amygdules are filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Cliff is comprised of chalcocite mineralization within fractured amygdaloidal andesite flows. The chalcocite is predominant within the amygdules but is also irregularly distributed throughout the flow. Chalcocite and occasional native copper also occur along fracture planes. The flows strike 140 degrees and dip 30 degrees southwest. A flat lying conformable mineralized horizon up to 2.1 metres thick has been previously mined out. An extensive malachite halo has been developed for 274 metres along a cliff face.

In 1973, reserves of 272,130 tonnes at 3.05 per cent copper have been classified as inferred ore (Sheppard, 1973).

A shipment of 323.86 tonnes was made in 1963 which ran 1.63 per cent copper (Assessment Report 19282).

BIBLIOGRAPHY

- EMPR AR 1907-L160; *1914-K381-K385; *1916-K346-K348; *1918-K270-K274; 1919-N217,N218; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, *19282, 22264
EMPR BC METAL MM00124
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 3-192
EMPR PF (see 092K 071, *Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; see 092K 101, Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 013**

NATIONAL MINERAL INVENTORY: 092K3 Cu2

NAME(S): **SANTANA**, SANTANNA, SANTANA NO. 1 (L.1340),
 SANTANA NO. 2 (L.1341), SANTANA NO. 3 (L.1342), SANTANA NO. 4 (L.1343),
 SANTANA NO. 5 (L.1344), SANTANA NO. 6 (L.1345), SANTANA NO. 7 (L.1346),
 SANTANA NO. 8 (L.1347), SANTA ANNA, GEM (L.1350),
 BONANZA (L.1351)

STATUS: Past Producer	Underground	MINING DIVISION: Nanaimo
REGIONS: British Columbia		
NTS MAP: 092K03E		UTM ZONE: 10 (NAD 83)
BC MAP:		
LATITUDE: 50 11 26 N		NORTHING: 5562055
LONGITUDE: 125 09 43 W		EASTING: 345680
ELEVATION: 152 Metres		
LOCATION ACCURACY: Within 500M		
COMMENTS: Location from description, Minister of Mines Annual Report 1929, page 390, centre of Santana claim group.		

COMMODITIES: Copper Gold Silver Zinc

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite Pyrite
 ASSOCIATED: Quartz
 ALTERATION: Malachite Azurite Silica
 ALTERATION TYPE: Skarn Oxidation Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive	Stratabound	Disseminated	Stockwork
CLASSIFICATION: Skarn	Replacement	Porphyry	
TYPE: K01 Cu skarn		L04	Porphyry Cu ± Mo ± Au
SHAPE: Cylindrical			
DIMENSION: 600 x 4	Metres	STRIKE/DIP:	TREND/PLUNGE:
COMMENTS: Mineralized zone.			

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Triassic	Vancouver	Parson Bay	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Limestone
 Granodiorite
 Quartz Diorite
 Skarn
 Gossan
 Calcareous Shale

GEOLOGICAL SETTING

TECTONIC BELT: Insular	PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Plutonic Rocks	
METAMORPHIC TYPE: Contact	Wrangell
	RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1988
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	69.6000 Grams per tonne
Copper	5.6500 Per cent
Zinc	0.4100 Per cent
COMMENTS: Sample 9609-008, from a 5-centimetre wide quartz vein with chalcopyrite.	
REFERENCE: Assessment Report 17256.	

CAPSULE GEOLOGY

The Santana is located 2.2 kilometres northwest of Bold Point between Conville Bay and Main Lake on Quadra Island. Mineralization was discovered at the Santana occurrence in 1916 or 1917. The owners conducted trenching and drove several adits. A shipment of hand-sorted ore was made in the vicinity of one of these adits and sent to A.S. & R. smelter in Tacoma. In 1929 and 1930 the property was controlled by Santana Copper Syndicate. Little work was reported. The property lay inactive until 1964 when surface work and

CAPSULE GEOLOGY

diamond drilling was conducted by R. Renshaw. Four holes were drilled totalling 762 metres. Between 1987 and 1989, Lonsdale Capital Corporation had an option to earn 100 per cent interest in the Santana property.

The Santana occurrence lies approximately 6 to 7 kilometres east of the Insular tectonic belt and Coast Plutonic Complex boundary. Diorite and quartz diorite are the predominant intrusive compositions along the western edge of the Coast Plutonic Complex. Other intrusive phases include granodiorite, quartz monzonite and granite. The oldest rocks of the Insular tectonic belt are altered basaltic flows, breccia and tuffs with minor greywacke, argillite and chert of the Permian Sicker Group. These are overlain by basalt flows, porphyritic andesite agglomerate and tuffs of the Triassic Karmutsen Formation. The overlying Late Triassic to Early Jurassic Quatsino and Kunga formations are composed of limestone.

The Santana occurrence is underlain by two lithologies. To the west is quartz diorite which, in the east, is in contact with thinly interbedded grey limestone and calcareous shale of the Triassic Parson Bay Formation. The limestone and shale strike 180 degrees and dip 75 to 85 degrees to the west.

Mineralization occurs in a narrow zone of contact metamorphosed rocks along the limestone and quartz diorite contact, which is traceable along ground exposures for up to 600 metres length, along a northwest trend, and widths up to 12 metres. The granodiorite is faulted and fractured and has been described as having a "gneissic structure". The limestone is grey to bluish black in appearance. The metamorphosed limestone is dark brown, rusty, quite often heavily mineralized, in places broken and quartz-filled, rarely coarsely crystalline, and has the general appearance of a skarn.

Mineralization, in the form of chalcopyrite, pyrrhotite and pyrite, occurs in masses or short lenses. Malachite and azurite are noted as alteration minerals. Many rock samples taken in 1988 yielded anomalous copper, zinc and silver values (Assessment Report 17256). Sample 9606-002, taken in 1988, yielded 5.65 per cent copper, 0.41 per cent zinc and 69.60 grams per tonne silver. The sample was taken from a 5-centimetre wide quartz vein with chalcopyrite. Sample 9609-016 yielded 12.00 per cent copper, 0.44 per cent zinc and 1213.79 grams per tonne silver. The sample was taken from massive sulphides.

Recent property work has reported chalcopyrite as fine-grained disseminations to massive blebs to stockwork-type narrow veinlets with secondary silica within quartz diorite. The mineralization appeared to be structurally (shear?) controlled along the intrusive-limestone contact. Three samples were taken near the No. 1 adit. Sample 01454 yielded 0.94 per cent copper, 12.75 grams per tonne silver and 0.17 gram per tonne gold. The sample was a 1.8-metre chip across the centre zone above the No. 1 portal. Grab sample 01455 yielded 2.74 per cent copper, 7.20 grams per tonne silver and 0.34 gram per tonne gold. Grab sample 01456, from a series of sloughed trenches, yielded 3.92 per cent copper, 290.33 grams per tonne silver and 0.21 gram per tonne gold (Assessment Report 19037).

A shipment of 158.8 tonnes was made to the Granby smelter at Anyox in 1916, which produced 93 grams of gold, 14,370 grams of silver and 4779 kilograms of copper.

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1930-305
EMPR ASS RPT 3522, *17256, *19037
EMPR BC METAL MM00182
EMPR GEM 1972-284
EMPR INDEX 3-212
EMPR PF (Various authors, (1919): Report on Santana Group)
EMR MP CORPFILE (New Far North Exploration Limited; McLeod Copper Limited)
GSC MAP 65A; 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 014**

NATIONAL MINERAL INVENTORY: 092K3 Au3

NAME(S): **TRILBY**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 28 N
LONGITUDE: 125 16 18 W
ELEVATION: Metres

NORTHING: 5564202
EASTING: 337907

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located 4 kilometres southeast from Granite Bay and 800 metres east from the logging-railroad (Minister of Mines Annual Report 1916).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz Hornblende
ALTERATION: Quartz Garnet Epidote Hornblende
ALTERATION TYPE: Silicific'n Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn
DIMENSION: 0090 x 0002 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Andesite
Granitic Intrusive
Limestone
Dike

HOSTROCK COMMENTS: Skarn mineralization occurs in andesite near granitic contact.
Limestone outcrops nearby.

GEOLOGICAL SETTING

TECTONIC BELT: Insular PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Wrangell

INVENTORY

ORE ZONE: DUMP REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1916
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 89.1400 Grams per tonne
Gold 3.4300 Grams per tonne
Copper 6.2000 Per cent
REFERENCE: Minister of Mines Annual Report 1916, page 345.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.
The Trilby skarn deposit occurs within a metamorphic zone of grey to green andesitic rock near its contact with granitic intrusive rocks and about 15 metres from a body of limestone. A narrow andesite dyke occurs in the orebody and roughly follows the strike of the ore. The deposit consists of pyrrhotite with associated chalcopyrite occurring in a gangue of quartz, garnetite, epidote and hornblende.
The strike of the orebody is nearly west. The dip varies from 30 degrees south to almost vertical. The orebody is exposed along strike by a series of open cuts for a distance of 90 metres. A 6

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 954
REPORT: RGEN0100

CAPSULE GEOLOGY

metre deep incline shaft sunk on the deposit exposes a 2.4 metre maximum ore thickness.

A grab sample from the dump at the mouth of the shaft assayed 3.43 grams per tonne gold, 89.14 grams per tonne silver and 6.2 per cent copper (Minister of Mines Annual Report 1916).

BIBLIOGRAPHY

EMPR AR *1916-345; 1919-371
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23
73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/10

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 015**

NATIONAL MINERAL INVENTORY: 092K3 Au1

NAME(S): **LUCKY JIM (L.723)**, GREAT GRANITE

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 19 N
LONGITUDE: 125 16 48 W
ELEVATION: 90 Metres

NORTHING: 5563943
EASTING: 337304

LOCATION ACCURACY: Within 500M

COMMENTS: The Lucky Jim occurs on Crown Grant Lot 723. The Lucky Jim group, consisting of the Lucky Jim, Rising Sun (092K 102), Saxon and Standard claims (Minister of Mines Annual Report 1908), lies 4 kilometres southeast of Granite Bay on Quadra Island.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Pyrite Marcasite Gold
Sylvanite Telluride
ASSOCIATED: Quartz
ALTERATION: Epidote Garnet Magnetite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Andesite
Limestone
Basalt
Quartz Diorite

HOSTROCK COMMENTS: Skarn mineralization occurs mainly at the volcanic-limestone contact. Coast Plutonic Complex rocks intrude to the immediate east.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: LUCKY JIM

REPORT ON: Y

CATEGORY:	Indicated	YEAR:	1986
QUANTITY:	12700 Tonnes		
COMMODITY	GRADE		
Silver	17.1400	Grams per tonne	
Gold	10.9700	Grams per tonne	
Copper	2.0000	Per cent	

COMMENTS: Drill indicated reserves as of 1986.
REFERENCE: George Cross Newsletter April 28, 1986.

CAPSULE GEOLOGY

The western half of Quadra Island lies within the Insular belt and is underlain primarily by andesitic volcanics of the Upper Triassic Karmutsen Formation, Vancouver Group. These are interbedded with and overlain to the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group.

The eastern half of Quadra Island lies within the Coast Crystalline belt and is mainly underlain by Jurassic to Tertiary intrusive rocks of the Coast Plutonic Complex. These granitic rocks are in fault and/or intrusive contact with the Insular rocks along a northwest trending zone from Open Bay to Granite Bay.

The Lucky Jim deposit is situated 4 kilometres southeast of Granite Bay. Irregular lenticular bodies of limestone occur at intervals along a narrow northeast trending zone intercalated with rocks

CAPSULE GEOLOGY

of andesitic composition.

The skarn-type main zone upon which a shaft has been sunk, strikes between 111 and 128 degrees and dips about 80 degrees to the southwest. The ore material follows a prominent line of faulting within the andesite but occurs along the limestone-andesite contact in the shaft area.

The ore material consists almost entirely of pyrrhotite with some chalcopyrite, pyrite and marcasite. At other points along its strike this deposit includes more quartz, epidote, garnet and other silicates, and to the southeast of the shaft a mass of magnetite is exposed. A 0.5 metre sample was taken near the top of the shaft and assayed 8.23 grams per tonne gold and 4.13 per cent copper (Geological Survey of Canada Summary Report 1913). Free gold and sylvanite were also reported (Minister of Mines Annual Report 1908).

The shaft was reported to be down 46 metres with ore still present near the bottom. Drifts are present at the 15 and 30 metre levels with drifts on the latter totalling some 67 metres.

Two parallel zones of mineralization occur 90 metres to the north and 90 metres to the south of the Lucky Jim shaft. All ore deposits in the area occur in the vicinity of limestone.

Over 396 metres of drilling were completed in 1984 by Butler Mountain Minerals Corporation. The resulting indicated reserves were 12,700 tonnes grading 10.97 grams per tonne gold, 17.14 grams per tonne silver and 2 per cent copper (George Cross Newsletter, April 28, 1986).

The Lucky Jim was discovered in 1903 and held by G.D. Mumford. It was later taken over by Great Granite Development Syndicate Ltd.

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1913-286; *1916-345,519; 1919-218; 1925-282; 1926-313; 1927-353;
1928-382; 1930-306
EMPR ASS RPT 2362
EMPR BC METAL MM00170
EMPR BULL 1, p. 141; 23; 40; 101, p. 169, Appendix 6
EMPR GEM 1969-211; 1970-280
EMPR INDEX 3-204
EMPR PF (*Report by W.H. Trewartha - James, Oct.1910; Sketch Plans
(2) of the Lucky Jim workings)
GSC MAP 120A; 1386A
GSC MEM *23, 146 pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75
GCNL #25,#41, 1981; #33,#44,#79, 1983; *Apr.28, 1986
N MINER Feb.9, 1984; Aug.22, 1985
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British Columbia, Vol. 1: Vancouver Island, p. 170

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/08

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 016**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHALCO**, CORONATION, ARGUS,
CHAL 1, MENZIES BAY

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:
LATITUDE: 50 08 24 N
LONGITUDE: 125 25 06 W
ELEVATION: 152 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of Chal 1 claim, 1970.

Underground
MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)
NORTHING: 5556997
EASTING: 327198

COMMODITIES: Copper Vanadium Iron Titanium Manganese
Chromium Nickel

MINERALS

SIGNIFICANT: Chalcocite Volborthite
ALTERATION: Malachite Azurite Brochantite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Industrial Min.
DIMENSION: 0366 x 0001 Metres
STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Vancouver Karmutsen

LITHOLOGY: Tuffaceous Argillite
Amygdaloidal Andesite
Fossiliferous Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1973
SAMPLE TYPE: Grab
COMMODITY GRADE
Chromium 0.0180 Per cent
Copper 0.8000 Per cent
Iron 4.6000 Per cent
Manganese 0.0570 Per cent
Titanium 0.4200 Per cent
Vanadium 1.8000 Per cent

COMMENTS: Copper is less than 0.8 per cent. Nickel is 0.007 per cent.
REFERENCE: Geological Survey of Canada, Economic Geology 27, page 54.

CAPSULE GEOLOGY

The Chalco (092K 016) and Chal 4 (092K 068) occurrences are located approximately 16 kilometres northwest of Campbell River, immediately west of Provincial Highway Number 19. The area is underlain by a very thick, gently dipping to flat-lying sequence of Upper Triassic Karmutsen Formation volcanic flows. Locally minor interflow sediments occur.

The copper-vanadium minerals occur mainly within lenses of sedimentary rock intercalated with volcanic rocks in a northwest trending shear zone at least 366 metres long. A gently dipping, twisting, pinching seam of mineralized sedimentary rocks lies within brown weathered, dark green, amygdaloidal andesite. The seam is approximately 1 metre thick at its widest point, strikes 315 degrees and dips 45 degrees northeast. It consists of black tuff-argillite overlain by fossiliferous limestone. The black tuff-argillite is heavily stained yellow, green, and blue after chalcocite and volborthite. Malachite, azurite, and bronchantite have also been identified. The heavily stained black tuff-argillite was analyzed with the following result: 1.8 per cent vanadium, 4.6 per cent iron, less than 0.8 per cent copper, 0.42 per cent titanium, 0.057 per

CAPSULE GEOLOGY

cent manganese, 0.018 per cent chromium and 0.007 per cent nickel (Geological Survey of Canada Economic Geology Number 27, page 54).

In 1955, 5 tonnes of high grade copper ore was shipped to the Tacoma smelter. This produced 1011 kilograms of copper and 249 grams of silver. In 1959, approximately 16 tonnes of sorted ore was trucked to the Cowichan Copper Company Limited dock. The ore averaged 24 per cent copper and was destined for a Japanese smelter (Minister of Mines Annual Report 1959, page 131).

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EMPR ASS RPT *2004
EMPR GEM 1969-211
EMPR PF (092K - General: Jambor, J.L., (1957), Masters Thesis)
GSC EC GEOL *27, pp. 53-54
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/30

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 017**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAP**, QUATUM RIVER

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 23 53 N
LONGITUDE: 124 52 47 W
ELEVATION: 500 Metres

NORTHING: 5584579
EASTING: 366406

LOCATION ACCURACY: Within 1 KM

COMMENTS: Approximate centre of Cap 2, 1970.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Breccia Pipe
CLASSIFICATION: Unknown
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Quartz Monzonite
Breccia

HOSTROCK COMMENTS: Age date 10 kilometres west: 97 to 99 million years (Geological Survey of Canada, Open File 480).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The Cap showing is located near Quantam River approximately 6 kilometres from Quantam Bay on Ramsay Arm. The area is underlain by intrusive rock of the Jurassic to Cretaceous Coast Plutonic Complex. Age dating 10 kilometres west on Bute Inlet gives an age of 97 to 99 million years by the potassium-argon method from biotite and hornblende (Geological Survey of Canada Open File 480).

The showing is described as "disseminated chalcopyrite, pyrite, and pyrrhotite which occur mainly within a breccia pipe. Host rocks are all plutonic, chiefly quartz monzonite and quartz diorite" (Geology, Exploration and Mining 1970, page 229).

BIBLIOGRAPHY

EMPR GEM *1970-229
GSC MAP 1386A
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/27

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 018**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOPE**, DAWN, THURLOW GOLD

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:

Underground

MINING DIVISION: Vancouver

LATITUDE: 50 24 53 N
LONGITUDE: 125 20 23 W
ELEVATION: 91 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5587359
EASTING: 333774

LOCATION ACCURACY: Within 500M

COMMENTS: Location from Map 7, Assessment Report 5367.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
COMMENTS: Minor chalcopyrite.
ASSOCIATED: Quartz
ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granodiorite
Diorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DUMP

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1980

COMMODITY

GRADE

Silver	4.8000	Grams per tonne
Gold	4.1100	Grams per tonne
Copper	0.0500	Per cent

COMMENTS: Grab sample from mine dump.
REFERENCE: Assessment Report 7959.

CAPSULE GEOLOGY

The Hope occurrence is located on the northeastern side of East Thurlow Island, 1200 metres southwest from Thurlow Point. Workings include a shaft with drift, an adit and many open cuts at approximately 91 metres elevation.

The area is underlain by medium to coarse-grained granodiorite, diorite, and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. In the area of the workings the rock is generally coarse-grained and more highly altered with chloritized mafic minerals. While the main mineralized vein is a fracture filling, numerous stringers and small fracture zones carrying quartz also have been noted. The main mineralized vein is 0.3 to 1.5 metres in width and can be traced sporadically from the beach to the workings, a distance of approximately 1 kilometre.

Pyrite and minor chalcopyrite are frequently associated with the quartz veining. Gold values appear to be directly related to the amount of pyrite. Assays obtained in 1936, when the property was in production, are much higher than recent assays in 1974 and 1980. A 1936 assay from massive pyrite was 189.91 grams per tonne gold and 150.83 grams per tonne silver. Another assay of mixed chalcopyrite and pyrite with a little quartz was 39.08 grams per tonne gold, 246.82 grams per tonne silver and 6.5 per cent copper (Minister of

CAPSULE GEOLOGY

Mines Annual Report 1936, page F21). In 1980 a grab sample of mostly quartz with some pyrite from a dump assayed 4.11 grams per tonne gold, 4.80 grams per tonne silver and 0.05 per cent copper (Assessment Report 7959).
From 1929 to 1941, 383 tonnes of ore produced 2954 grams of gold, 4137 grams of silver and 135 kilograms of copper.

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1933-256; *1936-F20
EMPR ASS RPT *5367, *7959
EMPR BULL 1, 1932, p. 140
EMPR EXPL 1975-E112; 1980-266
EMPR PF (Dolmage, V., (1931): Report on the Thurlow Gold Mines Ltd.;
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Mine)
GSC MAP 65A; 169A; 1386A
GSC MEM 23, p. 128
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/15

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 019**

NATIONAL MINERAL INVENTORY:

NAME(S): **DAWN**, ROSE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 23 N
LONGITUDE: 125 14 23 W
ELEVATION: 30 Metres

NORTHING: 5551009
EASTING: 339792

LOCATION ACCURACY: Within 1 KM

COMMENTS: Location description from Minister of Mines Annual Report 1921, page G225.

COMMODITIES: Silver Copper Gold Lead

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Galena

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION:

STRIKE/DIP: 360/85E

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Volcanic Rock

GEOLOGICAL SETTING

TECTONIC BELT: Insular

PHYSIOGRAPHIC AREA: Georgia Depression

TERRANE: Wrangell

METAMORPHIC TYPE: Regional

RELATIONSHIP: Syn-mineralization

GRADE:

INVENTORY

ORE ZONE: SHAFT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1921

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

27.4240

Grams per tonne

Copper

4.4000

Per cent

COMMENTS: Sample from shaft bottom. Trace gold.

REFERENCE: Minister of Mines Annual Report 1921, page 225.

CAPSULE GEOLOGY

The Dawn showing is located on the southern half of Quadra Island. The location is somewhat obscure but is located between Heriot Bay and Gowlland Harbour (Minister of Mines Annual Report 1921, page 225).

A one metre wide quartz vein is exposed in Upper Triassic Karmutsen Formation volcanic rocks. The vein is mineralized with chalcopyrite, pyrite, and a small amount of galena. The vein strikes north with a dip of 85 degrees east.

A sample, from the bottom of one of the two 5.5 metre deep shafts assayed 27.424 grams per tonne silver, 4.4 per cent copper and trace amounts of gold (Minister of Mines Annual Report 1921, page 225).

BIBLIOGRAPHY

EMPR AR *1921-G225

GSC MAP 1386A

GSC OF 480

DATE CODED: 1985/07/24

CODED BY: GSB

FIELD CHECK: N

DATE REVISED: 1989/01/03

REVISED BY: SED

FIELD CHECK: N

CAPSULE GEOLOGY

and magnetite-chalcopyrite-pyrite skarn. One outcrop also contains trace amounts of scheelite.

Sampling within an adit on the Shoo Fly in 1922 gave assay results of 52 per cent iron, 17.3 per cent silica, 2.2 per cent sulphur and 0.21 per cent phosphorous (Minister of Mines Annual Report 1922, page 243). Exploration in 1983 failed to find this adit, but samples of skarn outcrops were taken. The best assay was 32.20 per cent iron, greater than 1 per cent manganese, 0.3260 per cent copper and 0.0720 per cent zinc. The value for manganese is uncharacteristic when compared to the other samples in the area (Assessment Report 12224).

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EMPR AR 1897-575; 1901-1103; 1907-221; *1922-242
EMRP ASS RPT *12224
EMPR EXPL 1983-328
EMPR OF 1991-17
GSC EC GEOL 13, p. 66
GSC MAP 65A; 196A; 1386A
GSC MEM 23, p. 146
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/20

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 021**

NATIONAL MINERAL INVENTORY: 092K3 Cu8

NAME(S): **AMETHYST, PATHFINDER, FANNY 1,
 FANNY BAY**

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K11W
 BC MAP:
 LATITUDE: 50 31 53 N
 LONGITUDE: 125 23 03 W
 ELEVATION: 152 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: Amethyst claim directly west of Monte Cristo (L.344), Minister of
 Mines Annual Report 1920, page 210 and Figure 3.

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5600430
 EASTING: 331034

COMMODITIES: Gold Silver Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite
 ASSOCIATED: Quartz
 ALTERATION: Biotite Quartz Pyrite
 ALTERATION TYPE: Biotite Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated Vein
 CLASSIFICATION: Igneous-contact Replacement Hydrothermal Epigenetic
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Unnamed/Unknown Group	Unnamed/Unknown Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Biotite Schist
 Quartzite
 Wacke
 Marble
 Granodiorite
 Diorite

HOSTROCK COMMENTS: Unknown group and/or formation are Paleozoic and/or Triassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Wrangell
 METAMORPHIC TYPE: Contact
 PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 Plutonic Rocks
 RELATIONSHIP: Syn-mineralization
 GRADE:

INVENTORY

ORE ZONE: PIT REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1981
 SAMPLE TYPE: Chip
 COMMODITY GRADE
 Silver 50.0000 Grams per tonne
 Gold 6.2000 Grams per tonne
 Copper 2.0000 Per cent
 Molybdenum 0.1300 Per cent

REFERENCE: Assessment Report 9665.

CAPSULE GEOLOGY

The Amethyst showing is located west of the Monte Cristo (L.344) claim (092K 022) on the western shore of Phillips Arm 500 metres northwest of Hewitt Point. Most of the area is underlain by diorite and granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex. Persistent narrow bands of stratified rocks trend northwest and often separate plutonic rocks of different compositions.

The Amethyst showing is underlain by stratified rocks, meta-volcanic rocks and metasediments in contact with granodiorite. The stratified rocks are Paleozoic and/or Triassic in age and are not presently correlated with a specific group and/or formation. Local shearing has developed within the metasedimentary and metavolcanic package parallel to bedding. Bedding strikes 290 degrees with an 80 degree dip to the north. Lithologies include biotite schist, quartzite, pyritic schist, wacke, and marble.

CAPSULE GEOLOGY

Two adits, a series of open cuts and a shaft were completed prior to 1922 to examine a structurally controlled quartz vein. A sample from the dump outside one of the adits assayed 3.5 per cent copper, 82.272 grams per tonne silver, and trace gold (Minister of Mines Annual Report 1922, page 210). More recent assay samples were obtained from a pit (or open cut) near the shaft. The best assay in 1981 was from a 2 to 5 kilogram chip sample of massive sulphide. The values were greater than 2 per cent copper, 0.13 per cent molybdenum, greater than 50 grams per tonne silver, and 6.2 grams per tonne gold (Assessment Report 9665).

BIBLIOGRAPHY

EMPR AR 1918-274; 1919-214; *1920-210; 1925-279
EMPR ASS RPT *9665, 12224
EMPR EXPL 1981-86; 1983-328
GSC MAP 196A; 1386A
GSC MEM 23, p. 146
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 022**

NATIONAL MINERAL INVENTORY:

NAME(S): **MONTE CRISTO (L.344)**, HEWITT POINT, PHILLIPS ARM

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 31 54 N
LONGITUDE: 125 22 49 W
ELEVATION: 76 Metres

NORTHING: 5600452
EASTING: 331310

LOCATION ACCURACY: Within 500M

COMMENTS: Centre of Monte Cristo (L.344) claim.

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Biotite Quartz Pyrite
ALTERATION TYPE: Biotite Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated Vein
CLASSIFICATION: Igneous-contact Replacement Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Biotite Schist
Quartzite
Wacke
Marble
Granodiorite
Diorite

HOSTROCK COMMENTS: Unknown group and/or formation for host and Paleozoic and/or Triassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

Plutonic Rocks
RELATIONSHIP: Syn-mineralization

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1918

COMMODITY

GRADE

Silver	75.4160	Grams per tonne
Gold	1.3712	Grams per tonne
Copper	6.4000	Per cent

COMMENTS: Sample from hangingwall.

REFERENCE: Minister of Mines Annual Report 1918, page 274.

CAPSULE GEOLOGY

The Monte Cristo (L.344) showing is located on the western shore of Phillips Arm north of Fanny Bay and Hewitt Point. Most of the area is underlain by diorite and granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex. Persistent narrow bands of stratified rock trend northwest and often separate plutonic rocks of different compositions.

The Monte Cristo (L.344) showing is underlain by stratified rocks, metavolcanic rocks and metasediments in contact with granodiorite. The stratified rocks are Paleozoic and/or Triassic in age and are not presently correlated with a specific group and/or formation. Local shearing has developed within the package, parallel to bedding. Lithologies include biotite schist, quartzite, pyritic schist, wacke and marble.

Chalcopyrite and pyrite occur within structurally controlled quartz veins.

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 968
REPORT: RGEN0100

CAPSULE GEOLOGY

The best assay was obtained in 1918 from the hangingwall or right-hand vein. The values were 6.4 per cent copper, 1.37 grams per tonne gold and 75.4 grams per tonne silver. A bulk sample was sent to the Tacoma smelter in 1916 and averaged 2.7 per cent copper (Minister of Mines Annual Report 1918, page 274).

BIBLIOGRAPHY

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1927-354
EMPR ASS RPT 9665, 12224
EMPR EXPL 1981-86; 1983-328
GSC MAP 196A; 1386A
GSC MEM 23, p. 146
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/21

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 023**

NATIONAL MINERAL INVENTORY: 092K11 Au1

NAME(S): **DORATHA MORTON (L.253)**, CORDERO, DISCOVERY,
HERCULES, MARBLE, EVA (L.254),
COMOX FR. (L.297), PERCY (L.299), DORATHA MORTON FR. (L.300),
AFRICA FR. (L.345), CHIMNANG (L.319), BANKER (L.291),
DOUGLAS (L.320), JACK (L.292), MAGGIE MAY (L.322)

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K11W
BC MAP:
LATITUDE: 50 30 44 N
LONGITUDE: 125 24 34 W
ELEVATION: 792 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of Doratha Morton (Lot 253) claim.

Underground
MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5598357
EASTING: 329173

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Stockwork Shear
CLASSIFICATION: Hydrothermal Epigenetic Igneous-contact Replacement
TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic Unnamed/Unknown Group Unnamed/Unknown Formation Coast Plutonic Complex
Jurassic-Cretaceous

LITHOLOGY: Meta Sediment/Sedimentary
Meta Volcanic Rock
Diorite
Granodiorite

HOSTROCK COMMENTS: Host is a shear zone between diorite and metamorphosed rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Syn-mineralization
GRADE:

INVENTORY

ORE ZONE: DORATHA MORTON REPORT ON: Y
CATEGORY: Combined YEAR: 1987
QUANTITY: 18100 Tonnes
COMMODITY: Gold GRADE: 12.0000 Grams per tonne
COMMENTS: Drill and drift indicated reserves.
REFERENCE: George Cross News Letter No.68, 1987.

CAPSULE GEOLOGY

The Doratha Morton property encompasses eight contiguous claims and one detached Crown granted mineral claim on the west side of Phillips Arm, 2 kilometres southwest of Fanny Bay.

The property was first Crown granted to P.J. Chick and C. Moody in 1897 and by late 1898 was placed into production. Ore taken from several adits at an elevation of 792 metres was conveyed down to a stamp mill and Canada's first cyanide vat-leach plant, on a 2-kilometre tramline. Fairfield Exploration Syndicate, Limited, operated the mine until October 1899. Additional claims, including the Eva (Lot 254), Banker (Lot 291), Comox Fraction (Lot 297), Percy (Lot 299), Dorothy Morton Fr. (Lot 300), Chimnang (Lot 319) and Maggie May (Lot 322) were Crown-granted to the company in 1899.

Glasair Mining Corporation, Limited acquired the property in 1924. The R. Crowe-Swords interests incorporated Glasord Mining Corporation, Limited in 1925 to option the property. Work during the year included driving a 15-metre adit some 120 metres east of the old

CAPSULE GEOLOGY

workings. Glasair sold its interest in the property to Morton Wolseley Consolidated Mining, Limited; the property was retained until the end of 1932. The workings at that time included 5 adits totalling 640 metres.

Hercules Consolidated Mining, Smelting and Power Corporation, Limited held the property in 1933-34 and opened 3 new adits totalling 76 metres. Santiago Mines, Limited carried out work under a lease agreement in 1935. Pembroke Mining Corporation, of Seattle, held the property in the late 1930's.

Black Pearl Petroleum Ltd. optioned a 60 per cent interest in the property from Stephen Green, of Burnaby, in March 1983. The company name was changed August 1983 to Signet Resources Inc. Work in 1984 included trenching and 610 metres of diamond drilling. This work indicated a probable 7710 tonnes of greater than 13.7 grams per tonne gold in the No. 1 adit east drift (George Cross Newsletter 12/09/84). Work in 1985-86 included trenching and 1088 metres of diamond drilling in 15 holes.

Work included a VLF electromagnetic survey in 1983, 596 metres of diamond drilling in 5 BQ holes on surface in 1984, 387 metres of underground diamond drilling in 5 AQ holes in 1985 with no significant results, and 701 metres of diamond drilling in 10 surface holes in 1986. A geochemical soil survey in the Camp Area gave values in 6 of 87 samples. Reserves were reported as 9070 tonnes at 14.4 grams per tonne gold (George Cross Newsletter, 1987, No. 2).

The company name was changed in March 1987 to New Signet Resources Inc. In 1987 trenching and sampling was carried out along strike on a number of gold-bearing parallel quartz veins within the shear zone.

The area was prospected in 1993 by Ripple Creek Resources. Total production between 1898 and 1934 was 9319 tonnes, yielding 333,923 grams of silver, 143,913 grams of gold and 1094 kilograms of copper.

Most of the area is underlain by a persistent, over 12 kilometre long band of stratified rock. The band trends northwest and separates Jurassic to Cretaceous Coast Plutonic Complex rock of two different compositions, diorite and granodiorite. The stratified rock, metavolcanic rocks and metasediments are Paleozoic and/or Triassic in age and are not presently correlated with a specific group and/or formation.

The Doratha Morton straddles the sheared contact between diorite to the southwest and metamorphosed rocks to the northeast. The shear zone dips approximately 75 degrees to the southwest and locally truncates the contact. It can be traced from the Alexandria (092K 028) through the Enid-Julie (092K 024) and Doratha Morton, and on to the Commonwealth-Champion (092K 025), a distance of 6.5 kilometres.

Pyrite is the dominant sulphide mineral found on the property. It occurs in quartz as disseminated patches and seams parallel to the foliation within the silicified zone and as fracture coatings within both granitic and metamorphosed rocks. The pyrite concentration seldom rises above 5 per cent. Trace amounts of galena, sphalerite and chalcopyrite often accompany pyrite especially in crosscutting stringers. Tellurium has been detected on fractures in drill core. Gold values appear to have a positive correlation with concentrations of pyrite within or adjacent to quartz veins. Free gold has seldom been observed.

The mine consists of numerous adits, levels and trenches, all located along the shear zone. Drill and drift indicated tonnage was calculated at 18,144 tonnes grading 11.998 grams per tonne gold in 1987 (George Cross Newsletter #68, 1987 and Open File 1992-1). Selected grab samples from dumps have been recorded as assaying as high as 146.7 grams per tonne gold and 579.3 grams per tonne silver (New Signet Resources, Statement of Material Facts, 1987).

Several samples taken from the former Doratha-Morton mine in 1993 yielded anomalous gold (Assessment Report 22515). Sample JLP-92-56 yielded 1560 grams per tonne gold and 41 grams per tonne silver. Sample JLP-92-64 yielded 11,290 grams per tonne gold, greater than 200 grams per tonne silver, 0.18 per cent copper, 0.82 per cent lead and 0.75 per cent zinc. Sample JLP-92-58 yielded 2.25 grams per tonne gold and 2.6 grams per tonne silver. Sample JLP-92-62 yielded 6.09 grams per tonne gold and 11.0 grams per tonne silver.

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1917-256; 1919-213; 1922-242; 1923-254; 1925-276,361; 1926-310;
1927-354; 1928-381; 1929-387; 1932-207; 1933-255; *1934-A28,A29,
F8-F10; 1935-F57,G45-G46; *1936-F22-F25
EMPR ASS RPT *15720, *22515

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EMPR INDEX 3-194, 199
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EMPR PF (Crowe-Swords, P. (1925): Plan showing underground workings;
Doratha Morton Mine (1935): Doratha Morton Survey; Richmond,
A.M. (1934): Plan showing the Doratha Morton Claim Workings;
Starr, C.C. (1934): Report for Hercules Consolidated Mining,
Smelting & Power Corporation with supplementary notes (1941),
assay plans and claim sketch; Starr, C.C. (1946): Report on
the Alexandra-Enid-Julie-Doratha Morton; Starr, C.C. (1949):
Report on the Alexandra-Enid-Julie-Doratha Morton; New Signet
Resources Inc. (1987); Statement of Material Facts)
EMP MP CORPFILE (Glasair Mining Corporation, Limited; Glasord
Mining Corporation Limited; Morton-Woolsey Consolidated Mines,
Limited; Hercules Consolidated Mining, Smelting and Power
Corporation, Limited; Santiago Mines, Limited)
GSC MAP 65A; 169A; 1386A
GSC MEM 23, p. 136
GSC OF 480
CIM BULL Aug., 1985, p. 70
GCNL #56,#145,#151,#177, 1984; #200, 1985; #5,#34,#181,#228, 1986;
#2,#68,#135,#176,#225, 1987; #134, 1988; #206(Oct.26),#223(Nov.
21), 1989
IPDM Jan./Feb., May/Jun., 1984; May/Jun., 1985; Feb., 1986
N MINER Sept.20, 1984
V STOCKWATCH Jul.9, Nov.24, 1987

DATE CODED: 1985/07/24
DATE REVISED: 1999/09/10

CODED BY: GSB
REVISED BY: LDJ

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

metres on the west side of Phillips Arm, 1.2 kilometres west of Bullveke Point, some 210 kilometres northwest of Vancouver. The Alexandra property (092K 028) adjoins to the southeast and the Doratha Morton (092K 023) to the northwest.

The Enid (Lot 280), Julie (Lot 233), Jennie B. (Lot 276), and Stella (Lot 281) claims were Crown-granted in 1898 to W.A. Bauer. In 1918 the above claims were re-Crown-granted, the Enid and Stella to W.R. Taylor, and the Julie and Jennie B. to T.N. Phillips. The adjacent Empress claim (L 279) was Crown-granted to Alex Smith in 1921. Glasair Mining Corporation, Limited, incorporated September 1924, acquired the Julie and Jennie B. claims and the Doratha Morton property. During 1925 a 4.6-metre shaft was sunk and a 18.3-metre crosscut adit driven on the Julie claim, to trace pyrite, and rare galena-bearing auriferous quartz veins. The veins are parallel to shear zone at the contact, and in the metamorphosed rocks on the northeast side.

Glasord Mining Corporation, Limited was incorporated in July 1925 to continue the exploration work. The Julie and Jennie B. claims were re-Crown-granted in 1925 to R. Crowe-Swords, President of the company. Work was suspended in 1926. The Enid and Stella claims were re-Crown-granted in 1926 to W.A. Glasgow.

Morton Woolsey Consolidated Mines, Limited in 1928 purchased Clasair Mining for 2,500,000 shares. Apparently no work other than prospecting was done on the Enid-Julie in subsequent years. Enid-Julie Mines, Limited was incorporated in 1933 to continue the development work. In 1933, it is recorded that 62 grams of gold and 218 grams of silver were produced from 2 tonnes of ore. It is unknown from which working or on which claim the shipment was made. During 1934 the new 238-metre level crosscut adit was driven about 91 metres, some 150 to 215 metres short of its objective, which was to get under the shaft showing; work was suspended in July 1934.

Corpac Minerals Limited in July 1980 optioned the above claims from M.P. Warshawski and J.W. MacLeod. A geochemical soil survey (105 samples) was carried out over the Enid, Empress and Comox claims.

Most of the area around Bullveke Point is underlain by a persistent band, over 12 kilometres long, of stratified rock. The band trends northwest and separates Jurassic to Cretaceous Coast Plutonic rock of two different compositions, diorite and granodiorite. The stratified rock, metavolcanic rock and metasediments are Paleozoic and/or Triassic in age and are not presently correlated with a specific group and/or formation.

The Enid-Julie straddles the sheared contact between diorite to the southwest and metamorphosed rocks to the northeast. The shear zone dips approximately 75 degrees to the southwest and locally truncates the contact. It can be traced from the Alexandria (092K 028) through the Enid-Julie and Doratha Morton (092K 023), and on to the Commonwealth-Champion (092K 025), a distance of 6.5 kilometres.

Values of 135.7 grams per tonne gold or better with corresponding high values of silver, 551.9 grams per tonne, have been obtained from grab and/or float samples from in and around the old workings (Assessment Reports 8287, 10399, 14466). A more representative sample from the Kristina adit produced values of 0.70 gram per tonne gold and 3.2 grams per tonne silver (Assessment Report 14466).

In 1996 and 1997 Norwood Resources conducted ground electromagnetic and magnetic surveys, soil geochemical surveys, prospecting, trenching and road building on the Ben 1-6, Dy 1-6, Hop 1-4, and Jeff claims, which are part of the adjacent Alexander property (092K 028). As of 1996 the Alexandria property includes the Alexandria, Enid-Julie, Empress and All up.

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1926-310,450; 1928-381; 1929-387; 1933-254; 1934-F8; 1936-F61
EMPR ASS RPT 6108, *8287, *10399, 11839, 12577, 13864, *14466, 15720,
17067
EMPR BC METAL MM00193
EMPR BULL 1, 1932, p. 139; 20, 1940, Part IV, p. 13
EMPR EXPL 1980-266; 1981-2805; 1983-327; 1985-228
EMPR GEM 1976-126
EMPR INDEX 3-195
EMPR PF (O'Grady, B.T., (1936): Special Report on Enid-Julie;
See 092K 023 - Starr, C.C. (1934): Report for Hercules Consolidated
Mining, Smelting & Power Corporation with supplementary notes
(1941), assay plans and claim sketch; Starr, C.C. (1946): Report on
the Alexandra-Enid-Julie-Doratha Morton; Starr, C.C. (1949):
Report on the Alexandra-Enid-Julie-Doratha Morton)
EMR MP CORPFILE (Glasair Mining Corporation, Limited; Glasord Mining

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 974
REPORT: RGEN0100

BIBLIOGRAPHY

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Enid-Julie Mines, Limited; Corpac Minerals Ltd.)
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GSC MEM 23, 146 pp.
GSC OF 480
GCNL #81,#129, 1985; Dec.19, 1986
IPDM Sept., 1985
NAGMIN Oct.11, 1985
Mineral Policy Sector; Corporation Files: "

DATE CODED: 1985/07/24
DATE REVISED: 1999/08/19

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 025**

NATIONAL MINERAL INVENTORY:

NAME(S): **COMMONWEALTH (L.277)**, CHAMPION (L.276), FANNY BAY

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K11W
BC MAP:
LATITUDE: 50 31 21 N
LONGITUDE: 125 26 02 W
ELEVATION: 701 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Center of boundary between Commonwealth (L.277) and Champion (L.276) claims. NTS Map 092K11W.

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5599556
EASTING: 327478

COMMODITIES: Gold Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Galena Sphalerite Chalcopyrite
COMMENTS: Only rare traces of galena, sphalerite and chalcopyrite.
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive Disseminated Concordant
CLASSIFICATION: Hydrothermal Epigenetic Igneous-contact
SHAPE: Irregular
MODIFIER: Sheared

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Sediment/Sedimentary
Meta Volcanic Rock
Diorite
Granodiorite

HOSTROCK COMMENTS: Host is a shear zone between diorite and metamorphosed rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
Plutonic Rocks
RELATIONSHIP: Syn-mineralization
GRADE:

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Channel
COMMODITY: Gold
GRADE: 10.5240
Grams per tonne

COMMENTS: Channel sample across 0.9 metres from old working.
REFERENCE: Assessment Report 15763.

CAPSULE GEOLOGY

The Commonwealth-Champion (Lots 277, 276) prospect is located 2.5 kilometres southwest from the head of Fanny Bay on Phillips Arm. Most of the area around Fanny Bay is underlain by a persistent band, over 12 kilometres long, of stratified rock. The band trends north-west and separates Jurassic to Cretaceous Coast Plutonic Complex rock of two different compositions, diorite and granodiorite. The stratified rock, metavolcanic rock and metasediments are Paleozoic and/or Triassic in age and are not presently correlated with a group and/or formation.

The Commonwealth-Champion straddles the sheared contact between diorite to the southwest and metamorphosed rocks to the northeast. The shear zone dips approximately 75 degrees to the southwest and locally truncates the contact. It has been traced from the Alexandria (092K 028) through the Enid-Julie (092K 024) and Doratha Morton (092K 023) and on to the Commonwealth-Champion, a distance of 6.5 kilometres.

In 1985-1986 a geophysical anomaly was identified on the

CAPSULE GEOLOGY

Commonwealth claims during a geophysical program conducted by Falconbridge on the nearby Alexandria mine (09K 028) and adjacent ground.

On the Commonwealth-Champion the shear zone is evident for approximately 75 metres either side of the main creek drainage. Quartz veins are found parallel to foliation and host the mineralization. Pyrite is the dominant sulphide mineral in the area, with only rare traces of galena, sphalerite and chalcopyrite. A channel sample from the old workings (2 adits) assayed 10.5 grams per tonne gold over 0.9 metre and dump samples assayed up to 146.7 grams per tonne gold (Assessment Report 15763).

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GSC MEM 23, 146 pp.
GSC OF 480
GCNL #2,#26, 1987

DATE CODED: 1985/07/24
DATE REVISED: 1999/08/16

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

of massive grey limestone locally metamorphosed to a clean white crystalline marble. At higher elevations argillite becomes more prominent. The argillite is generally weakly to strongly hornfelsed with a corresponding increase in biotite and chlorite content. The area of mineralization in the argillite is characterized by weak to strong silicification in a north trending zone at least 150 metres long and 50 metres wide with a 70 to 80 degree dip to the west. Within this zone is an extensive, irregular body of quartz lenses and stringers up to 15 metres in width. The quartz is irregularly mineralized with disseminated pyrite, minor amounts of pyrrhotite, and occasional specks of sphalerite, galena, or chalcopyrite. Early reports also note the presence of free gold (Annual Report 1920, page 210). Gold values appear to be largely associated with the sulphides which are of erratic to sparse distribution in the predominantly bull quartz.

Between 1898 and 1902, Frederick Arm Mining Company drove two adits, one for 61 metres, with a 15-metre drift and a 12-metre winze, and another was driven for 38 metres. In 1902, a trial shipment of 13.6 tonnes of ore was sent to Tacoma, Washington giving a value of \$13.50 in gold and silver at 1902 prices.

In 1920 old workings were reconditioned and additional development was done by Ladysmith Smelting Corporation Limited as part of sampling to test the occurrence as a possible source of large tonnages of siliceous flux.

In December 1965, Amalgamated Mining Developments Corporation Limited optioned the occurrence as part of Gold Bug (Lot 240), Dashwood (Lot 248), Wellington (Lot 289), Waterloo (Lot 290) and Black Prince (Lot 318) claims from Columbia Gypsum Company Ltd. Subsequently they were purchased by Amalgamated Mining and had the showings re-examined. Samples taken from and in the vicinity of old workings assayed from 0.069 gram per tonne gold, 0.69 gram per tonne silver, 0.01 per cent copper over 0.5 metre to 17.42 grams per tonne gold and 125.83 grams per tonne silver over 1.2 metres.

A 1.5-metre channel sample from the southern drift of the upper adit assayed 39.08 grams per tonne gold and 392.85 grams per tonne silver (Assessment Report 10911). A zone approximately 45 metres long and 15 metres wide in the upper adit averaged 4.63 grams per tonne gold and 39.76 grams per tonne silver (Assessment Report 10911).

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*1920-210; 1923-255; 1925-280; 1927-355; 1933-256; 1936-F61;
1947-222
EMPR ASS RPT 4949, *10911
EMPR BULL 1, 1932, p. 139
EMPR EXPL 1982-225
EMPR PF (O'Grady, B.T., (1936): *Special Report)
EMR MP CORPFILE (Amalgamated Mining Development Corporation Ltd.)
GSC MAP 65A, 169A, 1386A
GSC MEM 23, p. 9
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1999/08/17

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REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

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DATE CODED: 1985/07/24
DATE REVISED: 1989/03/21

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 028**

NATIONAL MINERAL INVENTORY: 092K6 Au1

NAME(S): **ALEXANDRIA**, ALEXANDRA (L.225), PHILLIPS ARM,
CORDERO, DISCOVERY, BEN 1-6,
DY 1-6, HOPE 1-4, JEFF,
ALL UP (L.366), ENID-JULIE, COMOX,
WATERLOO (L.226), HIGHLAND LADDIE (L.228), DUKE (L.229),
JUBILEE (L.230)

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:
LATITUDE: 50 29 30 N
LONGITUDE: 125 22 47 W
ELEVATION: 1 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location of the Alexandra claim (Lot 225), on the western shore of
Phillips Arm (Assessment Report 14466). Other claims include Duchess
(Lot 231), Emperor Fr. (Lot 227), Fairbank (Lot 368) and Mink
(Lot 370).

Underground
MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5596004
EASTING: 331207

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Telluride
ASSOCIATED: Quartz
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I01 Au-quartz veins
SHAPE: Bladed
MODIFIER: Sheared

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Mesozoic-Cenozoic

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Meta Volcanic
Meta Sediment/Sedimentary
Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE:

INVENTORY

ORE ZONE: EMPRESS ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY
Gold
Silver

GRADE
192.5000 Grams per tonne
647.0000 Grams per tonne

COMMENTS: Empress Adit, Sample ED97-1.
REFERENCE: Assessment Report 25321.

ORE ZONE: COMOX ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY
Gold
Silver

GRADE
2.1900 Grams per tonne
7.5000 Grams per tonne

COMMENTS: Comox Adit, sample C-0971.
REFERENCE: Assessment Report 25321.

CAPSULE GEOLOGY

kilometres long, of stratified rock. The band trends northwest and separates Tertiary-Jurassic Coast Plutonic Complex diorite and granodiorite from stratified metavolcanic rocks and metasediments of Paleozoic and/or Triassic age.

The mine straddles the sheared contact between diorite to the southwest and metamorphosed rocks to the northeast. The shear zone dips approximately 75 degrees to the southwest and locally truncates the contact. It can be traced from the Alexandria through the Enid-Julie (092K 024) and Doratha Morton (092K 023) and on to the Commonwealth (092K 025) occurrences respectively, a distance of 6.5 kilometres. The area was prospected in 1993 by Ripple Creek Resources.

The workings explore the highly silicified and quartz-veined shear zone. Pyrite and minor chalcopyrite within the quartz veins are known to carry high gold and silver values. The best intersections from underground drilling are 1.0 metre grading 11.0 grams per tonne, 1.15 metres grading 6.45 grams per tonne and 0.82 metre grading 5.0 grams per tonne gold (Assessment Report 14466).

Sample 19-B, taken from the former Alexandria mine area in 1993, yielded 510.86 grams per tonne gold, 89.6 grams per tonne silver, 0.33 per cent copper, 0.12 per cent lead, 0.49 per cent zinc and 0.02 per cent molybdenum (Assessment Report 22515).

Drill indicated reserves are 25,600 tonnes grading 10 grams per tonne gold (Exploration in British Columbia 1986, page C274).

In 1996 and 1997 Norwood Resources conducted ground electromagnetic and magnetic surveys, soil geochemical surveys, prospecting, trenching and road building on the property. The soil survey on the adjacent Ben claims on the Alexander property tests the area between the Doratha Morton Mine (092K 023) and the Enid-Julie workings (092K 024). The purpose was to determine if the Doratha Morton gold trend continues into the Alexandria property. Two areas of anomalous gold were located and trenched. A composite chip sample from the Comox adit (Sample C-0971) returned 2.19 grams per tonne gold and 7.5 grams per tonne silver. Sample ED97-1 from a 2-metre thick quartz ledge at the Empress adit portal assayed 192.5 grams per tonne gold and 647 grams per tonne silver (Assessment Report 25321).

The distribution of gold in soils indicates that there are at least four subparallel, en echelon mineralized structures in the Ben grid area, and that the orientation of soil-gold trends indicate that they are arcuate, sub-vertical tension gashes. They are filled with quartz veins that contain shoots enriched in pyrite and fine-grained tellurides. Numerous quartz ledges and podiform bodies in outcrops of meta-andesite are located along soil gold trends.

The Ben 1 to 6 claims are held in good standing until October 31, 2000 by Bernard Fitch of New Westminster. The Hope 1-4 claims are held in good standing until December 2002, and the Dy 1-6 until April 2002, by Christopher Dyakowski of Vancouver.

BIBLIOGRAPHY

- EMPR AR 1897-575; 1898-1138,1142; 1899-806; *1920-212; 1923-79,254; 1925-276,280; 1926-310; 1927-354; 1928-380; 1929-386; 1930-304; 1931-202; 1932-207; 1933-256; 1934-F7,G49; 1939-A41; 1940-A74
EMPR ASS RPT 6108, 8287, 10399, 11839, 12577, 13864, *14466, 17067, *22515, *24890, *25321
EMPR BC METAL MM00190
EMPR BULL *1 (1932), p. 137; 20 (1940) Part IV, p. 13
EMPR EXPL 1980-266; 1983-327; 1985-228; 1986-C274; 1997, p. 63
EMPR GEM 1976-E126
EMPR INDEX 3-187
EMPR MAP 65 (1989)
EMR MIN BULL MR 223 B.C. 169
EMR MP CORPFILE (Alexandria Mining Company, Limited; Alexandria Gold Mines, Limited; Premier Gold Mining Company, Limited; Corpac Minerals Ltd.; Charlemagne Resources Ltd.)
EMPR OF 1992-1
EMPR PF (Mellin, R.G. (1927): Report on the Alexandria Group; See 092K 023 - Starr, C.C. (1934): Report for Hercules Consolidated Mining, Smelting & Power Corporation with supplementary notes (1941), assay plans and claim sketch; Starr, C.C. (1946): Report on the Alexandria-Enid-Julie-Doratha Morton; Starr, C.C. (1949): the Alexandria-Enid-Julie-Doratha Morton)
GSC MAP 65A; 1386A
GSC MEM 23, p. 137
GSC OF 480
GCNL #202, 1983; #36,#41,#209, 1984; #68,#81,#93,#123,#126, 1985; Dec.19, 1986; #2,#26, 1987
IPDM Sept., Nov./Dec., 1985
N MINER MAG Feb., 1986

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NAGMIN Oct.11, 1985
WWW <http://www.infomine.com/>

DATE CODED: 1985/07/24
DATE REVISED: 1999/05/07

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 029**

NATIONAL MINERAL INVENTORY: 092K11 Cu1

NAME(S): **COLOSSUS (L.256)**, LAGOON, PORTAGE (L.259),
CHAMPNESS (L.260), BLUE BELL (L.258), ESTERO BASIN,
RIO TINTO (L.257), IAN, JAN,
COLOSSAS

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K11E
BC MAP:
LATTITUDE: 50 31 53 N
LONGITUDE: 125 12 09 W
ELEVATION: 472 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Border between Colossus (Lot 256) and Portage (Lot 259) claim
(NTS Map 092K11E).

Underground

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

NORTHING: 5600032
EASTING: 343907

COMMODITIES: Copper Molybdenum Silver Gold Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Sphalerite
ASSOCIATED: Quartz
ALTERATION: Limonite Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
SHAPE: Irregular
MODIFIER: Faulted Fractured

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Granodiorite
Diorite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: COLOSSUS REPORT ON: Y
CATEGORY: Unclassified YEAR: 1966
QUANTITY: 117934 Tonnes
COMMODITY GRADE
Copper 2.5000 Per cent
COMMENTS: Between 2 and 3 per cent copper.
REFERENCE: Alquin Mines Limited, Financial Record 22/8/66, NMI 092K11Cu1.

ORE ZONE: UNDERGROUND WORKINGS REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 105.2000 Grams per tonne
Gold 0.0560 Grams per tonne
Copper 28.1000 Per cent
Molybdenum 0.0030 Per cent
COMMENTS: Chalcopyrite with pyrite and sphalerite.
REFERENCE: Assessment Report 15919.

CAPSULE GEOLOGY

The Colossus (Lot 256) prospect is located on the border of the Colossus (Lot 256) and the Portage (Lot 259) claims approximately 750 metres west of Buker Creek on the northern shore of Estero Basin. The property was developed at the turn of the century and includes over 900 metres of underground development which traverses the border of the two above mentioned claims.

The B.C. Exploring Syndicate Limited of London, England,

CAPSULE GEOLOGY

carried out exploration and development work on the property from 1892 until 1903. Five claims, the Colossus, Rio Tinto, Blue Bell, Portage, and Champness Fraction (Lots 256-260, respectively) were Crown-granted to the company in 1899. Development work by the company totaled some 792 metres of drifting and 82 metres of raising in three adits between elevations of 395 and 470 metres. An intermediate level was driven from the raise between No. 3 and No. 2 levels. The company maintained the claims in good standing until about 1918. The claims were offered for tax sale in 1919 and, not being sold, were forfeited to the Crown in 1921. Messrs. Dixon and Rowley, of Vancouver, leased the property in 1922 and staked one additional claim, the Lagoon; sampling was reported at that time. Colossus Copper Company, Limited, was incorporated in 1929 to acquire the leased claims and through additional staking expanded the property to 15 claims. Rehabilitation of the old workings was began in 1929. The company charter was surrendered in 1932.

Phelps Dodge Corporation of Canada, Limited, optioned the leased Crown-grants and 41 recorded claims from H.W. Gardner, of Vancouver, in 1960. Work by the company during 1960-1961 included geological mapping, and 111 metres of underground diamond drilling in three holes.

Alquin Mines Limited, incorporated in 1966, acquired the property, then comprising 33 claims including the leased Crown-grants. As reported at that time reserves of 117,934 tonnes of between 2 and 3 per cent copper had been established by the driving of three levels and connecting raises (Financial Record 22/8/66).

Work during the period 1966-1968 included geological, magnetometer, and self-potential surveys, and 1538 metres of diamond drilling in 33 holes. The company name was changed in 1969 to Alquin Pacific Limited. The company charter was surrendered in 1974.

Gardiner Resources Incorporated acquired the Crown-grants in February 1980 by the assignment of 1979 agreements between P.J. Goodman and the Dixon and Rowley Estates on the Colossus and Champness Fraction, and between Goodman and New Jersey Zinc Exploration Company (Canada) Limited on the Blue Bell and Portage claims. Gardiner Resources staked the adjacent Ian and Jan Claims (15 units). Work during 1980 included rehabilitation of adits and sampling.

Sancono Ventures Incorporated in December 1986 optioned from Laurence Lazeo, of Vancouver, the Blue Bell and Portage Crown-grants and the Bluebell (12 units), Portage (20 units), and Colossus (20 units) located claims; the Colossus overstaked all the Crown-grants, of which the Colossus and Champness Fr. were not part of the option agreement; adits 1 and 2 are on the Portage and adit 3 on the Colossus Crown-grants. Work in 1987 included geological mapping, a geochemical survey comprising 167 soil and 75 rock samples, ground and airborne magnetometer and VLF electromagnetic surveys. This work indicated a coincident geophysical-geochemical anomaly several hundred metres south of the known mineralization and in part on the Colossus Crown-grant.

The Colossus prospect is underlain by granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex. The granodiorite has been faulted and intruded by dykes of intermediate to mafic composition. Mineralized quartz veins occur in the fault planes. The granodiorite is coarse-grained, equigranular and exhibits some potassium feldspar alteration. The mafic dikes are fine-grained, dark green in color, often serpentinized, and probably dioritic in composition. They occupy north to northeast trending fractures and vary from a few centimetres to 3 metres in width. Quartz veins, often containing sulphide mineralization, occupy east to northeast fractures in the area of the workings.

The mineralization consists of streaks and patches of pyrite, chalcopyrite and molybdenite in quartz veins which have sharp contacts steeply dipping to the northwest. Secondary mineralization is persistent throughout the quartz with limonite or malachite in localized areas. The mineralization appears spatially related to the mafic dikes.

A grab sample, from underground working level 2, of chalcopyrite with pyrite and sphalerite, assayed 28.10 per cent copper, 0.003 per cent molybdenum 0.056 gram per tonne gold, 105.2 grams per tonne silver and 0.0959 per cent cobalt (Assessment Report 15919). Ten representative samples from the same area gave values of 1.14 per cent copper, 0.094 per cent molybdenum, 5.2 grams per tonne silver and 0.0034 gram per tonne gold (Assessment Report 15919).

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EMPR AR 1899-807,851; 1900-926; 1901-1103,1114; 1919-214; 1922-242, 355; *1923-254,255; 1927-355; 1928-382; *1929-389; 1930-305; 1960-90; 1961-90; 1966-55; 1967-58; 1968-72

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EMPR ASS RPT 317, 9346, 15919
EMPR EXPL 1980-267; 1987-C220
EMPR PF (Hamilton, A.C.: Synopsis of O.B. Smith Report; Haggen,
R.P., (1929): 6 Assorted Maps; Sancona Ventures Inc., (1987):
Prospectus)
EMR MP CORPFILE (Alquin Pacific Limited; Colossus Copper Company,
Limited; Gardiner Resources Inc.)
GSC MAP 65A; 169A; 1386A
GSC MEM 23, p. 9
GSC OF 480
GCNL Dec.5, 1973

DATE CODED: 1985/07/24
DATE REVISED: 1999/08/17

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 030**

NATIONAL MINERAL INVENTORY:

NAME(S): **TIDEWATER**, TIDEWATER GROUP, BONANZA,
IRONDALE, IRON DUKE, FANNY BAY

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11W
BC MAP:

MINING DIVISION: Vancouver

LATITUDE: 50 31 43 N
LONGITUDE: 125 25 03 W
ELEVATION: 427 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5600198
EASTING: 328662

LOCATION ACCURACY: Within 1 KM

COMMENTS: Exact location unknown. Stated as being 914 metres from the head of Fanny Bay, at an elevation of about 427 metres (Minister of Mines Annual Report 1922, page 242).

COMMODITIES: Iron Magnetite

MINERALS

SIGNIFICANT: Magnetite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Shear
CLASSIFICATION: Hydrothermal Epigenetic Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Unnamed/Unknown Group	Unnamed/Unknown Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Meta Volcanic Rock
Biotite Schist
Quartzite
Wacke
Marble
Skarn
Granodiorite
Diorite

HOSTROCK COMMENTS: Unknown group and/or formation for host and Paleozoic and/or Triassic in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Syn-mineralization
GRADE:

INVENTORY

ORE ZONE: OPENCUT
REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Iron
YEAR: 1922
GRADE: 60.4000 Per cent

COMMENTS: Sample from open cut on Bonanza claim.
REFERENCE: Minister of Mines Annual Report 1922, page 242.

CAPSULE GEOLOGY

The exact location of the Tidewater showing is not known. The Tidewater group of claims was described in the Minister of Mines Annual Report of 1922 as being situated 914 metres from the head of Fanny Bay and at an elevation of 427 metres above sea level. The area around Fanny Bay is underlain by a persistent band, over 12 kilometres long, of stratified rock. The band trends north-west and separates Jurassic to Cretaceous Coast Plutonic Complex rock of two different compositions, diorite and granodiorite. The stratified rocks, metavolcanics and metasediments, are Paleozoic and/or Triassic in age, and are not presently correlated with a specific group and/or formation. Locally, shearing has developed within the band, parallel to bedding and the strike of the band. Lithologies include biotite schist, quartzite, pyritic schist, wacke, marble and skarn. The Tidewater showing is described in the Minister of Mines Annual Report of 1922 as having a country rock which is considerably

CAPSULE GEOLOGY

sheared and heavily stained with iron oxide, while in the sheared zones, occur fissures filled with magnetite-iron ore. On the Bonanza claim, of the Tidewater group, deposits of magnetite outcrop in bluffs up the precipitous mountain side for about 183 metres elevation. In places these deposits reach a width of 3 metres or more. In 1922 a sample from an open cut on the Bonanza claim assayed 60.4 per cent iron, 11 per cent silica, trace sulphur and trace phosphorous (Minister of Mines Annual Report 1922, page 242).

BIBLIOGRAPHY

EMPR AR *1922-242
GSC MAP 196A; 1386A
GSC MEM 23, p. 146
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/21

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 031**

NATIONAL MINERAL INVENTORY:

NAME(S): **GALENA**, FANNY BAY, FRANCES BAY,
WILD ROSE, BLUEBELL, LILLY,
SUNFLOWER, BLUE BIRD

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06E
BC MAP:
LATITUDE: 50 20 55 N
LONGITUDE: 125 01 31 W
ELEVATION: 152 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location from description, Minister of Mines Annual Report 1916, page 349.

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5579353
EASTING: 355912

COMMODITIES: Zinc Lead Silver Copper

MINERALS

SIGNIFICANT: Sphalerite Galena Pyrite
COMMENTS: Gold, antimony and copper are trace.
ALTERATION: Malachite Quartz
COMMENTS: Malachite noted on Geological Survey of Canada Open File Map 480.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Stockwork
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: STRIKE/DIP: 053/90S TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks

INVENTORY

ORE ZONE: OPENCUT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1916
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 41.3600 Grams per tonne
Lead 16.0000 Per cent
Zinc 19.5000 Per cent

COMMENTS: Selected sample from open cut. Trace gold and antimony.
REFERENCE: Minister of Mines Annual Report 1916, page 349.

CAPSULE GEOLOGY

The Galena showing is located on the east side of Frances (formerly Fanny) Bay. The showing is at 152 metres elevation, half-way down into the bay. The area around Frances Bay is underlain by granodiorite and to a lesser extent quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. What has been described as a shear vein system or fissure vein, crosses the bay with a strike of 053 degrees and vertical dip. The vein is 2 to 3 metres in width, composed primarily of quartz with epidote and chlorite and is contained within the granodiorite. On the west side of the bay, four small partly assimilated inclusions and/or screens of metasediments and meta-volcanic rocks have been noted. Mapping by the Geological Survey of Canada identified malachite on the east side of the bay (Geological Survey of Canada Open File 480). Mineralization is found within the quartz in the shear. Small veinlets crisscross the shear and contain disseminations as well as blebs of sphalerite, galena and pyrite. A selected sample from an open cut in 1916 assayed 19.5 per cent zinc, 16.0 per cent lead, 41.36 grams per tonne silver and trace gold and antimony. Other samples

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CAPSULE GEOLOGY

taken in 1916 showed trace amounts of copper (Minister of Mines Annual Report 1916, page 349).

This occurrence is along strike and across the bay from the Pewter showing (092K 137). These two occurrences have identical settings and mineralization and are assumed to be on the same vein.

BIBLIOGRAPHY

EMPR AR *1916-349; 1929-390
EMPR ASS RPT *12722
GSC MAP 196A; 1386A
GSC MEM 23, p. 141
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/25

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 032**

NATIONAL MINERAL INVENTORY: 092K12 Str1

NAME(S): **KNIGHT INLET MARBLE - COPPER**, CAMBRIA COPPER, PRINCESS,
 CATHERINE

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K12W
 BC MAP:
 LATITUDE: 50 42 59 N
 LONGITUDE: 125 50 18 W
 ELEVATION: 442 Metres

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5622130
 EASTING: 299640

LOCATION ACCURACY: Within 500M
 COMMENTS: Located 1.5 kilometres up Matsiu Creek from Knight Inlet, on the east side of Matsiu Creek between 274 and 610 metres elevation (Minister of Mines Annual Report 1918, page N212).

COMMODITIES: Marble Copper Zinc Silver Dimension Stone
 Building Stone

MINERALS

SIGNIFICANT: Marble Bornite Chalcopyrite Sphalerite Pyrrhotite
 ASSOCIATED: Garnet
 ALTERATION: Malachite Azurite Garnet
 ALTERATION TYPE: Skarn
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Podiform Stratiform
 CLASSIFICATION: Skarn Replacement Industrial Min.
 TYPE: R04 Dimension stone - marble K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Unnamed/Unknown Group	Unnamed/Unknown Formation	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Marble
 Garnetite
 Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 TERRANE: Plutonic Rocks
 METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: VEIN REPORT ON: N

CATEGORY: Assay/analysis	YEAR: 1928
SAMPLE TYPE: Channel	
COMMODITY	GRADE
Silver	85.7000 Grams per tonne
Copper	5.7000 Per cent
Zinc	5.8800 Per cent

COMMENTS: Assays across 1.2 metre "vein".
 REFERENCE: Minister of Mines Annual Report 1928, page 380.

CAPSULE GEOLOGY

The Knight Inlet Marble-Copper showing is located approximately 1.5 kilometres north of Knight Inlet along the east side of Matsiu Creek. The area is underlain chiefly by an uncorrelated marble lens, 15 to 30 metres wide and at least 350 metres long, of Paleozoic and/or Triassic age. The lens is contained within granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex.

From 1918 through to 1930 the area was explored for copper. Bornite, chalcopyrite, sphalerite, pyrrhotite, malachite and azurite are noted as irregular lenses within garnetite in the crystalline marble. The management of the property in 1928 recorded an assay of 85.7 grams per tonne silver, 5.7 per cent copper and 5.88 per cent zinc across a 1.2 metre "vein" (Minister of Mines Annual Report 1928, page 380).

More recently, in the 1970's, the area was examined for the blue coloured marble. The physical tests indicate the compressive strength in the order of 69000 to 83000 kilopascals, bulk gravity 2.66 to

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
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CAPSULE GEOLOGY

2.77 and absorption 0.06 to 0.09 per cent. Modulus of rupture of six samples varied between 12970 and 19390 kilopascals (Exploration 1978, page 285).

BIBLIOGRAPHY

EMPR AR 1874-36; 1898-1145,1146; 1899-807,808; 1901-1103,1104; 1902-236; 1903-205; 1904-248; 1918-275; *1919-211,212; 1920-225; 1925-281; 1926-309; *1928-380; *1929-380; 1930-304
EMPR EXPL 1978-E285
EMPR GEM 1969-385; 1970-494
EMPR PF (Hora, Z.D., (1978): Letter to R.K. Robertson with Quality Test Results)
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/21

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 033**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONSTITUTION**, EDEN POINT, WEST THURLOW ISLAND

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K05W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 23 54 N
LONGITUDE: 125 46 57 W
ELEVATION: 76 Metres

NORTHING: 5586622
EASTING: 302253

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description (Minister of Mines Annual Report 1927, page 353).

COMMODITIES: Zinc Silver

MINERALS

SIGNIFICANT: Sphalerite
ASSOCIATED: Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown
DIMENSION:
COMMENTS: Shear zone.

STRIKE/DIP: 330/60N

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Greenstone
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP: Syn-mineralization

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1925

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

13.7120

Grams per tonne

Zinc

36.0000

Per cent

COMMENTS: Selected sample. Trace gold.

REFERENCE: Minister of Mines Annual Report 1925, page 280.

CAPSULE GEOLOGY

The Constitution showing is located near the shore of West Thurlow Island at Eden Point. The local geology is composed of Paleozoic and/or Triassic crystalline limestone bands in volcanic rocks (greenstone) in contact with diorite of the Juro-Cretaceous Coast Plutonic Complex. The bands of limestone are found in a shear within the volcanic rocks and range from 1 to 1.5 metres in width. The shear strikes 330 degrees with a dip of 60 degrees north.

Mineralization is composed primarily of sphalerite and pyrite and is found at the limestone-volcanic contacts. The mineralization occurs irregularly and while the continuity along strike is persistent, assay values are variable. One sample assayed 36 per cent zinc, 13.7 grams per tonne silver while another assayed 1 per cent zinc and trace lead (Minister of Mines Annual Report 1925, page 280).

BIBLIOGRAPHY

EMPR AR *1925-280; 1926-310; *1927-353
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 033**

MINFILE NUMBER: **092K 034**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOLYMAN (L.1444)**, FREYA (L.1445), FOEYA (L.1445),
FREJA (L.1445), SHACKLES, ANONA

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

LATITUDE: 50 10 54 N
LONGITUDE: 125 07 23 W
ELEVATION: 1 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5560987
EASTING: 348427

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description, Minister of Mines Annual Report 1930, page 307.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ALTERATION: Calcite Quartz
ALTERATION TYPE: Carbonate Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Porphyry

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1938

COMMODITY

GRADE

Silver	37.7080	Grams per tonne
Gold	16.1116	Grams per tonne
Copper	0.0900	Per cent

COMMENTS: Sample taken across 1.5 metres.

REFERENCE: Property File - Stevenson, John, S., (1938).

CAPSULE GEOLOGY

The Solyman-Freya showing is located on the western shore of Read Island. Mineralization consists of specks and small patches of chalcopyrite and pyrite disseminated throughout medium-grained granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex. Quartz and carbonate alteration, or enrichment, of the granodiorite has been noted in the area of the showing. Although there is some shearing within the granodiorite there does not appear to be any structural control of the mineralization. The sulphides are indiscriminately scattered as small patches ranging in size from 0.3 to 2.54 centimetres.

A sample taken across 1.5 metres of an open cut at 40 metres elevation assayed 16 grams per tonne gold, 37.7 grams per tonne silver and 0.9 per cent copper (Stevenson, 1938).

BIBLIOGRAPHY

EMPR AR 1922-241; *1930-307; 1938-F65
EMPR ASS RPT 3488
EMPR GEM 1972-285
EMPR PF (Stevenson, John, S., (1938): The Annual Report of the Minister of Mines for the year 1938, Solyman)
GSC MAP 1386A
GSC OF 480

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 996
REPORT: RGEN0100

BIBLIOGRAPHY

Anderson, D. (1985): Evergreen Islands, Whitecap Books Ltd., p. 109

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/13

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

centimetres to 2 metres wide and is locally mineralized with lenses and disseminations of pyrite, pyrrhotite, arsenopyrite and minor chalcopyrite. The main oreshoot, 15 to 30 metres long and 60 metres down dip has been almost completely stoped out.

An assay of 34.28 grams per tonne gold, 47.992 grams per tonne silver and 0.15 per cent copper is recorded from a channel sample across 47.72 centimetres (Property File, O'Grady, B.T., 1936). This assay was obtained from an adit at 285 metres elevation.

From 1938 to 1940, 310 tonnes of mined ore produced 6656 grams of gold, 10,389 grams of silver and 1569 kilograms of copper.

BIBLIOGRAPHY

- EMPR AR 1898-1145,1197; 1899-807,816; 1917-256; *1926-313; 1929-387;
1930-304; 1933-256; 1940-28,74
EMPR ASS RPT *11608, 15589, 17274
EMPR BULL 1, 1932, p. 140
EMPR EXPL 1983-328
EMPR PF (Starr, C.C. (1941): Report of Examination of the Douglas Pine Mine, 11 p.; Plan Showing Workings and Vein Outcrops (1"=30'), 1941; Douglas Pine Group and Adjoining Claims (1"=30'); Detail of workings, with geology and assays (1"=30'), 1941; Douglas Pine Mine - Longitudinal Section (1"=60'), 1941; *O'Grady, B.T., (1936): Special Report on Douglas Pine)
GSC MAP 65A; 169A; 1386A
GSC MEM 23, p. 127
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/13

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 036**

NATIONAL MINERAL INVENTORY:

NAME(S): **WHITE PINE (L.234)**, ELECTRIC (L.317), UNION (L.316),
STUMP RANCH (L.1635), SI-AU, BICK 1-4

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:
LATITUDE: 50 27 02 N
LONGITUDE: 125 22 59 W
ELEVATION: 191 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of White Pine (Lot 234) claim (NTS Map 092K06W).

Underground
MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5591441
EASTING: 330824

COMMODITIES: Gold Silver Molybdenum Copper

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Silica Chlorite Fuchsite
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 500 x 1 Metres
COMMENTS: White Pine vein.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 3.6000 Grams per tonne
Gold 0.8100 Grams per tonne
Copper 0.3000 Per cent
COMMENTS: The best gold, silver and copper values obtained from intersections
in drillhole ET-87-10 between 33.5 and 35.55 metres.
REFERENCE: Assessment Report 17274.

ORE ZONE: ADIT REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1987
SAMPLE TYPE: Channel
COMMODITY GRADE
Silver 5.4000 Grams per tonne
Gold 2.3100 Grams per tonne
Molybdenum 0.0589 Per cent
COMMENTS: Channel across 1 metre. Also contained 12.2 per cent iron.
REFERENCE: Assessment Report 17274.

CAPSULE GEOLOGY

The White Pine occurrence is located immediately south of Shoal Bay on the northeast coast of East Thurlow Island. The occurrence consists of the White Pine (Lot 234) and Electric (Lot 317) Crown grants, Union (Lot 1633) and Stump Ranch (Lot 1635) Reverted Crown grants and five claims.

The White Pine claim was first reported in 1896. Exploration was intermittent through to 1934. By this time, massive quartz veins were explored by an opencut, 7.92-metre (No. 1) shaft, 50-metre

CAPSULE GEOLOGY

(No. 1) tunnel and 22.5-metre (No. 2) shaft. An additional 28.96 metres were drifted along the Nos. 2 and 3 adits in 1934.

In 1987, Tarnex Geoservices Ltd. was contracted by Minorex Consulting Ltd. on behalf of Rea Gold Corporation. The inferred east and west extensions of the White Pine vein were explored.

The area is underlain by fine to coarse grained quartz diorite to granodiorite of the Jurassic to Cretaceous Coast Plutonic Complex. Veins, stringers, pods and lenses of white opaque quartz are common throughout the area. The structures range from less than one centimetre to several metres in width and are commonly barren except for very local pyrite disseminations.

The White Pine vein is emplaced along an east to northeast trending shear system, which extends for up to 25 kilometres from Loughborough Inlet to Sonora Island. This shear zone is up to 61 metres wide and follows an irregular metavolcanic-intrusive contact. Sulphide-bearing quartz veins occur within silicified zones of this shear structure.

The White Pine vein dips from 65 to 70 degrees north with an average width of 1.5 metres and an inferred strike length of 580 metres. Mineralization in the vein consists of pyrite and locally chalcopyrite and molybdenite.

The best assay from a 1987 exploration program was 2.31 grams per tonne gold, 5.4 grams per tonne silver, 0.0589 per cent molybdenum, 12.20 per cent iron and 0.0018 per cent bismuth (Assessment Report 17274). This sample was taken across one metre of a sulphide-bearing quartz vein on the back of Adit No. 1. Selected samples containing up to 37.708 grams per tonne gold have been reported for Shaft No. 2 (Minister of Mines Annual Report 1934, page F10).

A total of 1162.97 metres of diamond drilling were carried out in thirteen drillholes between December 1987 and January 1988. Precious metal and base metal values were generally low. The best intersections were from drillhole ET-87-2 and ET-87-10. A 0.3-metre intersection from the hangingwall of a 0.8-metre zone of siliceous granodiorite yielded 0.58 gram per tonne gold and 3.2 grams per tonne silver in drillhole 87-2 (Assessment Report 17274). A bull white quartz vein was intersected between 32.5 and 35.0 metres in drillhole 87-10. The vein contains 3 to 5 per cent blebs and disseminations of pyrite and small crenulated stringers of molybdenite and pyrite with chlorite and fuchsite between 33.5 and 33.8 metres. A second vein was intersected between 35.45 and 35.55 metres depth, containing 30 per cent pyrite and 3 per cent chalcopyrite. The highest gold value obtained was 0.81 gram per tonne; the highest silver value 3.6 grams per tonne and copper value 0.30 per cent (Assessment Report 17274).

BIBLIOGRAPHY

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EMPR ASS RPT 15589, *17274
EMPR BULL 1 (1932), p. 140
EMPR EXPL 1987-C218
EMPR PF (Sargent, H. (1939): White Pine Group with maps; Starr, C.C. (1946): Report on the White Pine Mine, 7 p.; Detail of Workings, 1946))
GSC MAP 65A; 169A; 1386A
GSC MEM 23, pp. 135,136
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 037**

NATIONAL MINERAL INVENTORY:

NAME(S): **SONORA-NODALE** BOBBY BURNS (L.201A), HETTY GREEN (L.202A), DANIEL WEBSTER (L.203A), NODALE, HOPE 2-3, SONORA ISLAND, SCUD 1-2

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K06W
BC MAP:
LATITUDE: 50 26 17 N
LONGITUDE: 125 17 48 W
ELEVATION: 1 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Northwest shore of Sonora Island. Bobby Burns (Lot 201A) claim (NTS Map 092K06W).

Underground
MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)
NORTHING: 5589858
EASTING: 336913

COMMODITIES: Gold Silver Copper Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Sphalerite
ASSOCIATED: Quartz Arsenopyrite
ALTERATION: Sericite
ALTERATION TYPE: Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic Jurassic-Cretaceous	Unnamed/Unknown Group	Unnamed/Unknown Formation	Coast Plutonic Complex

LITHOLOGY: Meta Sediment/Sedimentary
Diorite
Phyllite
Meta Volcanic
Amphibolite

HOSTROCK COMMENTS: Host is a quartz vein between and in metamorphosed rocks and diorite.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
Plutonic Rocks
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Syn-mineralization
GRADE:

CAPSULE GEOLOGY

The Sonora-Nodale is located on the northwest shore of Sonora Island between Hall and Sonora points.

In the 1920s and 1930s, Sonora Gold Mines drove two short adits at sea level and a third at 300 metres elevation, and several short shafts. In 1939 and 1940, 11.79 tonnes of ore was reported mined with a grade of 891.43 grams per tonne gold (Assessment Report 21407). In 1982, Helmet Krutz staked the Argo claims on the western portion of the property. Prospecting of the old workings and geochemical surveys were conducted. J.W. McLeod also explored the property in 1984. In 1991, Cusac Industries Ltd. requested Baseline Resources Ltd. conduct an exploration program on the Bobby Burns claim group, consisting of the Daniel Webster (Lot 203A), Hetty Green (Lot 202A) and Bobby Burns (Lot 201A) Reverted Crown grants, and the Scud 1-2 claims.

In 1996, Aquistar Ventures conducted an exploration program on the area under the name of the Hope and Scud claims on the Sonora Island property, which included soil geochemical sampling, geophysical surveys and geological mapping.

The Sonora-Nodale showing is located in the 'Coastal Trough' on the western edge of the Jurassic to Cretaceous Coast Plutonic Complex, which is composed mainly of foliated and non-foliated diorite, quartz diorite and granodiorite intrusions. These intrusions host numerous elongate, steeply walled, northwest trending roof pendants, composed of greenschist to almandine-amphibolite facies metamorphosed schist, quartzite, limestone and conglomerate.

The Sonora-Nodale showing is thought to be situated near the southern extent of a major shear zone extending 25 kilometres to the

CAPSULE GEOLOGY

northwest and following an irregular metavolcanic-intrusive contact. In places, the shear is up to 60 metres wide and hosts sulphide-bearing quartz veins within silicified alteration zones.

On the north shore of Sonora Island there are two northwest trending zones of uncorrelated Paleozoic and/or Triassic metasedimentary rock. The zones form a roof pendant that is separated and surrounded by diorite of the Coast Plutonic Complex. The pendant strikes northwest and dips 50 to 80 degrees southeast. The south zone is composed of rusty weathered quartzite, schist, aplite, greenstone and augite porphyry. The north zone is chiefly contorted marble and intercalated quartzite and schist.

Quartz veins mineralized with pyrite are found mainly in shear zones along or near the contact, in both the diorite and the metasediments. The shear zones range from less than 0.5 to greater than 20 metres wide and are generally composed of platy carbonaceous phyllite interdigitated with metavolcanics.

Quartz stringers and lenses occur in shear zones, which contain pyrite, arsenopyrite, chalcopyrite and sphalerite. Sericite alteration is common in the shears.

Thirteen grab rock samples were collected in 1991. The best sample (K3272) yielded 0.34 gram per tonne gold. The sample was taken in the vicinity of the portal of a small adit crosscutting a 0.6 to 1.0 metre wide pyritic quartz vein. Gold values are related to the pyrite which is not consistently disseminated throughout the quartz veining. High values have been reported from localized blebs and/or lenses of pyrite.

During the 1996 program, existing adits and mineralized outcrops were sampled. Assay results were not as good as those from the 1991 program. Copper values were highest in Adits #1 and #2. The soil geochemistry identified a broad northerly trending anomalous zone crossing both the metasedimentary screen and adjacent amphibolite. Geophysical work in the area outlined the igneous contacts. The conclusions of the 1996 work were:

1) The past production from the Sonora-Nodale was from the metasedimentary-igneous contact zone, and may be analogous to the Doratha Morton mine in Phillips Arm about 12 kilometres to the northwest, 2) the diorite contact is marked by geochemical and geophysical anomalies, and 3) the amphibolite/schist structural zone is marked by a broad silver anomaly.

BIBLIOGRAPHY

EMPR AR 1896-554; 1899-807; 1919-371; *1929-388; 1930-305; 1940-A28
EMPR ASS RPT 11212, *12299, 13179, 14584, *21407, 24490
EMPR BC METAL MM00176
EMPR BULL 1 (1932), p. 140
EMPR INDEX 3-207
GSC MAP 65A; 169A; 1386A
GSC MEM 23
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1999/09/06

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 039**

NATIONAL MINERAL INVENTORY:

NAME(S): **REDONDA IRON**, ELSIE (L.1648), WEST REDONDA ISLAND

STATUS: Past Producer Open Pit

MINING DIVISION: Vancouver

REGIONS: British Columbia

NTS MAP: 092K07W

BC MAP:

LATITUDE: 50 17 30 N

LONGITUDE: 124 52 43 W

ELEVATION: 137 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Property (Minister of Mines Annual Report 1919, page 216).

UTM ZONE: 10 (NAD 83)

NORTHING: 5572748

EASTING: 366186

COMMODITIES: Iron

Magnetite

MINERALS

SIGNIFICANT: Magnetite

ASSOCIATED: Pyroxene

ALTERATION: Quartz

Garnet

Garnet

Epidote

Wollastonite

Wollastonite

Calcite

Vesuvianite

Vesuvianite

Diopside

ALTERATION TYPE: Skarn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Skarn

TYPE: K03 Fe skarn

DIMENSION: 15 x 9

COMMENTS: Dimensions of massive magnetite body. Attitude of strata.

Replacement

Industrial Min.

Metres

STRIKE/DIP: 360/65E

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Unknown
Mesozoic-Cenozoic

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Tuff
Greenstone
Diorite
Skarn

HOSTROCK COMMENTS: Roof pendants comprising metamorphosed sedimentary and volcanic rocks occur in the Jurassic to Tertiary Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP: Syn-mineralization

GRADE:

INVENTORY

ORE ZONE: OPENCUT

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1919

SAMPLE TYPE: Grab

COMMODITY

Iron

GRADE

60.6000

Per cent

COMMENTS: Sample from open cut.

REFERENCE: Minister of Mines Annual Report 1919, page 216.

CAPSULE GEOLOGY

The Redonda Iron prospect is centrally located on the Elsie (L.1648) claim on the north shore of Redonda Island. The claim was originally staked in 1892 and produced 568 tonnes of ore but no other development has taken place and the prospect remains largely undeveloped (Open File 1988-28).

The geology is composed of intrusive rocks of the Jurassic to Tertiary Coast Plutonic Complex. Age dates from the southern part of west Redonda Island indicate an age of 111 to 113 million years by potassium-argon from biotite and hornblende (Geological Survey of Canada Open File 480). Locally, highly metamorphosed greenstone and limestone of unknown group, formation or age are found as roof pendants in the diorite. The strata strikes north with a dip of 65 degrees east.

Magnetite is hosted in skarn altered tuffs and limestone near the contact with diorite. The skarn mineralogy comprises primarily

CAPSULE GEOLOGY

pyroxene and garnet with wollastonite and vesuvianite developed in limestone. The mineralogy also includes diopside, quartz, epidote, calcite, and a small amount of sphene.

The deposit is exposed in a large open cut or quarry about 15.2 metres wide from east to west, 12.2 metres high at the face and 6.1 metres north to south. The deposit exposed in the face is a massive body 15 metres high and 9 metres wide with a 3 metre margin of mixed magnetite and skarn. A grab sample from the face of the open cut assayed 60.6 per cent iron, 10.9 per cent silica and trace sulphur and phosphorous (Minister of Mines Annual Report 1919, page 216).

In part, the ore is solid magnetite, but in general the magnetite occurs in nests, granules or reticulating veins throughout the altered limestone. Irregularly distributed throughout the solid ore are a few small cavities in which the magnetite has assumed the form of small crystals.

There are three magnetite occurrences on west Redonda Island. They have almost identical geologic settings and are close enough to each other to indicate the possibility of a continuous zone (Open File 1988-28, page 68). The three occurrences are Redonda Iron (092K 039), Black Warrior (092K 040) and Homestake (092K 063).

BIBLIOGRAPHY

EMPR AR 1898-1146; 1899-808; 1901-1113; 1902-222,237; 1907-160;
*1918-282; *1919-216; 1920-216,351; 1926-314
EMPR OF *1988-28, pp. 67,68
GSC MAP 65A; 169A; 1386A
GSC MEM *23, pp. 131-133
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/30

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 040**

NATIONAL MINERAL INVENTORY:

NAME(S): **BLACK WARRIOR (L.2446)**, WEST REDONDA ISLAND

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 16 N
LONGITUDE: 124 52 00 W
ELEVATION: 91 Metres

NORTHING: 5572295
EASTING: 367026

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description, Minister of Mines Annual Report 1919, page 216.

COMMODITIES: Iron Magnetite

MINERALS

SIGNIFICANT: Magnetite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn Replacement Industrial Min.
TYPE: K03 Fe skarn
DIMENSION: 0015 x 0004 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Unknown
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Greenstone
Diorite
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1919

SAMPLE TYPE: Chip

COMMODITY

Iron

GRADE

64.8000 Per cent

COMMENTS: Chip across 4.3 metres.

REFERENCE: Minister of Mines Annual Report 1919, page 216.

CAPSULE GEOLOGY

Magnetite outcrops in the steep bank of Eagle Creek at an elevation of 91 metres, 400 metres from the shore of Pryce Channel on West Redonda Island. An open cut on the Black Warrior (L.2446) claim, prior to 1918, in the bank of Eagle Creek uncovered a solid magnetite zone 4.3 metres wide, nearly 15.2 metres high and of undetermined length. Magnetite is hosted in skarn altered limestone and/or greenstone near the contact with diorite. A sample chipped across the width of the face, 4.3 metres, assayed 64.8 per cent iron, 5 per cent silica and trace phosphorous and sulphur (Minister of Mines Annual Report 1919, page 216).

The island's geology is composed of intrusive rocks of the Jurassic to Cretaceous Coast Plutonic Complex. Age dating from the southern part of West Redonda Island indicates an age of 111 to 113 million years by potassium-argon from biotite and hornblende (Geological Survey of Canada Open File 480). Locally, highly metamorphosed greenstone and limestone of unknown group, formation or age are found in diorite.

There are three magnetite occurrences on West Redonda Island. They have almost identical geologic settings and are close enough to each other to indicate the possibility of a continuous zone (Open File 1988-28, page 68). The three occurrences are Redonda Iron

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RUN TIME: 09:30:14

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PAGE: 1007
REPORT: RGEN0100

CAPSULE GEOLOGY

Mine (092K 039), Black Warrior (092K 040) and Homestake (092K 063).

BIBLIOGRAPHY

EMPR AR *1918-282; *1919-215; 1920-216,351; 1926-314
EMPR OF *1988-28, p. 68
GSC MAP 65A; 1386A
GSC MEM 23, pp. 131-133
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/30

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 041**

NATIONAL MINERAL INVENTORY:

NAME(S): **SPIDER**, MORIARTY POINT, ELK BAY,
DISCOVERY PASSAGE

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K06W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 16 07 N
LONGITUDE: 125 24 48 W
ELEVATION: 1 Metres

NORTHING: 5571283
EASTING: 328018

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description, "point below Elk Bay", Minister of Mines
Annual Report 1927, page 352.

COMMODITIES: Copper Silver Gold

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite Magnetite Pyrite
ASSOCIATED: Quartz Feldspar
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
DIMENSION: STRIKE/DIP: 270/80N TREND/PLUNGE:
COMMENTS: Strike of the vein structure.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Greenstone
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Vancouver Island Ranges
RELATIONSHIP: GRADE:

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1925
SAMPLE TYPE: Channel
COMMODITY GRADE
Silver 68.5600 Grams per tonne
Gold 2.0568 Grams per tonne
Copper 14.5000 Per cent
COMMENTS: Sample from footwall of vein across 30 centimetres.
REFERENCE: Minister of Mines Annual Report 1925, page 282.

CAPSULE GEOLOGY

The occurrence is described as quartz-feldspar stringers in a shear zone in a greenstone formation which contacts granodiorite. The greenstone most likely represents part of the Upper Triassic Karmutsen Formation and the granodiorite most likely represents part of the Jurassic to Cretaceous Coast Plutonic Complex. Mineralization occurs as chalcopyrite, pyrite, magnetite and pyrrhotite within stringers and small veinlets. The only recorded assay for the showing was taken from the footwall of the vein across 30 centimetres. It was 14.5 per cent copper, 68.56 grams per tonne silver and 2.0568 grams per tonne gold (Minister of Mines Annual Report 1925, page 282).

BIBLIOGRAPHY

EMPR AR *1925-282; *1927-352
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/24

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 042**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER KING - COPPER QUEEN**, POTT, HUMPBACK BAY

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K05E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 20 53 N
LONGITUDE: 125 41 39 W
ELEVATION: 206 Metres

NORTHING: 5580801
EASTING: 308328

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description, Minister of Mines Annual Report 1927, page 352.

COMMODITIES: Copper Silver Gold

MINERALS

SIGNIFICANT: Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Quartz Epidote
ALTERATION TYPE: Silicific'n Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION:
COMMENTS: Bedding attitude.

STRIKE/DIP: 110/70S

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesite
Basalt
Amygdaloidal Flow
Porphyritic Flow
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1927

COMMODITY

	<u>GRADE</u>	
Silver	20.5680	Grams per tonne
Copper	10.8000	Per cent

COMMENTS: "A few pieces". Trace gold.

REFERENCE: Minister of Mines Annual Report 1927, page 352.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation andesite, basalt and, to a lesser degree, by poorly developed volcanic breccias. The flow rocks are mainly dark green to grey-green in colour and commonly amygdaloidal or porphyritic. Amygdules are usually filled quartz, epidote and occasionally carbonate. Purplish andesitic fragments varying up to 2.54 centimetres in diameter are widely but apparently thinly scattered in the green basalt and andesite. A bedding attitude in the volcanics of 110 degrees and 70 degrees southwest dip has been measured. An irregular lens of purplish grey limestone has also been noted. It varies up to 16 centimetres in width and about 18 metres in length. Epidote and quartz are the most obvious alteration minerals in the area.

Work in the late 1920's identified this showing as being about 30 centimetres of "fine chalcopyrite ore in a quartz gangue in greenstone". A few pieces assayed 10.8 per cent copper, 20.568 grams per tonne silver and trace gold (Minister of Mines Annual Report 1927, page 352).

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RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1010
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR AR *1927-352; 1928-379; 1929-383; 1930-300
EMPR ASS RPT *2405
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/23

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 043**

NATIONAL MINERAL INVENTORY: 092K5 Fe1

NAME(S): **IRON MIKE**, HARTT, ORECAN,
IRON JIM, IRON MAC

STATUS: Past Producer Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia, Vancouver Island

NTS MAP: 092K05W

UTM ZONE: 10 (NAD 83)

BC MAP:

LATITUDE: 50 18 39 N

LONGITUDE: 125 58 25 W

ELEVATION: 400 Metres

NORTHING: 5577421

EASTING: 288285

LOCATION ACCURACY: Within 500M

COMMENTS: Open pit, approximately 6 kilometres south-southwest from the community of Sayward (Assessment Report 12102).

COMMODITIES: Iron Magnetite Copper

MINERALS

SIGNIFICANT: Magnetite Pyrite Chalcopyrite

ASSOCIATED: Pyrite Chalcopyrite

ALTERATION: Garnet Epidote Magnetite

ALTERATION TYPE: Skarn

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Skarn Industrial Min.

TYPE: K03 Fe skarn

SHAPE: Irregular

DIMENSION: 305 x 61 x 10 Metres

STRIKE/DIP:

TREND/PLUNGE:

COMMENTS: Orebody

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Upper Triassic

Upper Triassic

GROUP

Vancouver

Vancouver

FORMATION

Quatsino

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY:

Limestone

Greenstone

Basalt

Quartz Diorite

Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Wrangell

METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: IRON MIKE

REPORT ON: Y

CATEGORY: Combined

YEAR: 1964

QUANTITY: 955266 Tonnes

COMMODITY

GRADE

Iron

43.5000

Per cent

COMMENTS: Proven (688,281 tonnes) and indicated (266,985 tonnes) reserves, some (168,736 tonnes) of which were mined in 1966 and 1969.

REFERENCE: Property File - H.L. Hill, May 15, 1965.

CAPSULE GEOLOGY

The Iron Mike open pit is located approximately 6.0 kilometres south-southwest from the community of Sayward. The deposit is a garnet-epidote-magnetite skarn which occurs along the contact between an underlying greenstone and an overlying limestone. The units are most likely basalts of the Upper Triassic Karmutsen Formation and limestone of the overlying Upper Triassic Quatsino Formation, both of the Vancouver Group. Within the zone of skarning the volcanics are brecciated and the limestone is replaced by skarn. The mineralized zone appears to occur along the crest of a small anticline or arch that strikes and plunges gently southeast. There appears to be no significant faulting on the property.

Mineralization is magnetite, essentially free of any impurities within the skarn. During production, mill feed grades averaged 45 per cent iron with no contained impurities. The orebody was originally

CAPSULE GEOLOGY

305 by 61 by 10 metres (average) of pure magnetite. Chalcopyrite and pyrite are reported to occur but their abundance and location are not specified.

Oreca Mines Ltd., which began production in 1965 and continued through to September of 1966, produced 82,863,185 kilograms of iron from 168,736 tonnes mined. The property remained idle until 1969, when 29,937 tonnes of stockpiled concentrate were shipped.

Proven (688,281 tonnes) and indicated (266,985 tonnes) reserves are 955,266 tonnes grading 43.5 per cent iron (H.L. Hill, May 15, 1965).

BIBLIOGRAPHY

EM EXPL 2001-23-31; 2002-29-40
EMPR AR 1960-104; 1961-91; 1962-96; 1963-99; 1964-152; 1965-255,420;
1966-A48,A50,68-69; 1969-A54
EMPR ASS RPT *12102
EMPR BULL 101, pp. 57, 169, Appendix 4A, 6
EMPR MAP 65, 1989
EMPR OF *1988-28; 1992-1; 1992-9
EMPR PF (*Reports and maps by H.L. Hill And Associates - Sept.29,
1964; Jan.6, May 15, 1965 (Res.))
EMR MP CORPFILE (Oreca Mines Ltd.)
EMR MP RESFILE (Oreca Resources)
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of
British Columbia, Vol. 1: Vancouver Island, p. 174

DATE CODED: 1985/07/24
DATE REVISED: 1988/05/25

CODED BY: GSB
REVISED BY: KDH

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 044**

NATIONAL MINERAL INVENTORY:

NAME(S): **OTTAWA-CENTRAL (L.1348-1349)**, SANTANA 9/10 (L.1348-1349)

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 49 N
LONGITUDE: 125 09 35 W
ELEVATION: 60 Metres

NORTHING: 5560908
EASTING: 345805

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description Minister of Mines Annual Report 1922,
page 241. Location from Figure 2, Assessment Report 17256.

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
ASSOCIATED: Unknown
ALTERATION: Unknown
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Replacement

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Limestone
Volcanic Rock
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

The Ottawa-Central showing is located north of Bold Point on Quadra Island. The geology of the area consists of granodiorites of the Coast Plutonic Complex within which is contained a northwest trending remnant of Upper Triassic Karmutsen Formation rocks. The showing is at the contact between limestone and volcanic rocks. A prospect hole was made, prior to 1922, which contained minor molybdenite in limestone. No assay values are reported.

BIBLIOGRAPHY

EMPR AR *1922-241
EMPR ASS RPT 3522
EMPR BULL 9 (1940) p. 86
GSC EC GEOL SERIES 20, p. 256
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/19

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 045**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER BOWL**

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K02E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 03 52 N
 LONGITUDE: 124 32 33 W
 ELEVATION: 914 Metres

NORTHING: 5546936
 EASTING: 389604

LOCATION ACCURACY: Within 1 KM

COMMENTS: Location from description in Minister of Mines Annual Report 1921, page 220.

COMMODITIES: Gold Silver Copper Lead

MINERALS

SIGNIFICANT: Chalcopyrite Arsenopyrite Galena

ASSOCIATED: Pyrite Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Concordant
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Unknown	Unnamed/Unknown Group	Undefined Formation	
Upper Cretaceous			Coast Plutonic Complex

LITHOLOGY: Argillite
 Granodiorite
 Quartzite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

TERRANE: Plutonic Rocks

METAMORPHIC TYPE: Contact

RELATIONSHIP: Syn-mineralization

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1921

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

462.7800

Grams per tonne

Gold

14.3976

Grams per tonne

Copper

1.0000

Per cent

REFERENCE: Minister of Mines Annual Report 1921, page 220.

CAPSULE GEOLOGY

The Copper Bowl showing is located on the steep slopes above Siwash Creek. The creek flows east into Powell Lake just north of Chippewa Bay. The geology of the area consists of granodiorites of the Upper Cretaceous Coast Plutonic Complex within which are contained small northwest trending remnants of metamorphosed country rock.

Granodiorite is exposed in the creek bed and the contact with metamorphosed argillites and quartzites is visible on steep slopes 200 to 275 metres above. The rocks at the contact are sheared, fractured and filled with quartz. The exposed quartz contains chalcopyrite, arsenopyrite, galena and pyrite. Samples assayed in 1921 had results of 14.40 grams per tonne gold, 462.78 grams per tonne silver and 1.0 per cent copper (Minister of Mines Annual Report 1921, page 220).

BIBLIOGRAPHY

EMPR AR *1921-219-221; 1928-383
 EMPR OF 1988-28
 GSC MAP 1386A

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1015
REPORT: RGEN0100

BIBLIOGRAPHY

GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/06

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

containing garnetite, epidote and mineralization. The mineralization, manifested by rusty zones and malachite stain, consists of pods, streaks, veins and lenses of massive sulphides composed of varying proportions of pyrite and chalcopyrite. Most samples were moderately magnetic, and magnetite was identified in some specimens.

The best silver values occur in the opencut from which previous ore shipments were made. In 1983, a chip sample over unknown length assayed 17.40 per cent copper and 320.17 grams per tonne silver (Assessment Report 11884). Eight rock chip samples were taken during property exploration in 1988. Sample CL88-R2 yielded 3.08 per cent copper, 52.80 grams per tonne silver and 0.27 gram per tonne gold (Assessment Report 18531). The sample was a 100-centimetre chip sample across malachite stained, heavily altered metavolcanics striking 160 degrees and dipping vertical.

One hundred and forty tonnes of ore are quoted as being mined and shipped several years before 1928 assaying 8 to 11 per cent copper, 240 to 685 grams per tonne silver and minor gold (Minister of Mines Annual Report 1928).

BIBLIOGRAPHY

- EMPR AR 1928-382; 1929-391; 1930-307
- EMPR ASS RPT *11884, *18531
- EMPR BC METAL MM00181
- EMPR EXPL 1983-326
- EMPR INDEX 3-211
- EMPR PF (Bryant, C.M. (1928): Preliminary Report on the Romano Group (1 map); Fullerton, J.T. (1929): Romano Copper Mine Workings; Humphrys, N. (1929): Romano Copper Mines Ltd., Plan of Mineral Claims Goat Island, Powell Lake, B.C.; Author unknown (1929): Romana Copper Mines Ltd., Section of Workings; Author unknown, date unknown, Sketch of tunnel)
- GSC MAP 1386A
- GSC MEM 335
- GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1997/06/09

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

in part by either altered andesitic rock and/or creamy white to pink aplite, possibly the felsic dykes noted in the area. The vein in the upper tunnel is exposed for a distance of approximately 15 metres and has a maximum width of 0.61 metres. The best assay sample was obtained in 1936 from near the entrance to the now collapsed upper tunnel. The sample assayed 26.74 grams per tonne gold and 137.12 grams per tonne silver over 91 centimetres (Minister of Mines Annual Report 1936, page F19).

The Golden Gate group of claims was staked by W. Wills in 1933. Loughborough Gold Mines, Limited, a private company, acquired the 12 located claims in 1935; a public company of the same name was incorporated in September 1936 to continue the development work. Small scale operations were carried on until 1940. Development work totals some 260 metres of tunnels, crosscuts, and winzes in two adits. A 24-metre shaft connects the two adit levels and extends 12 metres below the lower level.

Similar showings occur on other claims in the vicinity. On the Stuart claim, about 915 metres to the north, the workings include a shallow inclined shaft and two short adits. On the Leora claim, located on the shore about 460 metres west of the Stuart, a 3-metre adit has been driven.

Triako Mining Limited acquired the 14 claim property in 1966.

BIBLIOGRAPHY

- EMPR AR 1935-A29,F57,G45; *1936-F17-F20; 1939-41; 1961-90
EMPR ASS RPT *350, 4492, *14908
EMPR BC METAL MM00194
EMPR BULL *20, Part IV, pp. 12-14; 30, p. 46
EMPR EXPL 1986-C274
EMPR GEM 1973-254
EMPR INDEX 3-198
EMPR PF (Starr, C.C. (1936): Report on the Loughborough Mine, 8 p.;
Starr, C.C. (1939): Report of Examination of Loughborough Mine,
8 p.; Claim Map (sketch by Starr); Detail of Workings (sketch by
Starr); Surface Loughborough Claim (sketch by Starr); Section
Through Tunnels (sketch by Starr); Plan of Tunnels (sketch by
Starr))
EMR MP CORPFILE (Loughborough Gold Mines Ltd.)
GSC MAP 165A; 196A; 1386A
GSC MEM 23, 146 pp.
GSC OF 480
V STOCKWATCH Jun.3, 1987

DATE CODED: 1985/07/24
DATE REVISED: 1999/08/20

CODED BY: GSB
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 049**

NATIONAL MINERAL INVENTORY:

NAME(S): **CORTES ISLAND**, CARRINGTON BAY

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island

UTM ZONE: 10 (NAD 83)

NTS MAP: 092K02W

BC MAP:

LATITUDE: 50 07 50 N

LONGITUDE: 124 59 15 W

ELEVATION: 100 Metres

NORTHING: 5555038

EASTING: 357953

LOCATION ACCURACY: Within 1 KM

COMMENTS:

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal

Disseminated
Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granitic Rock

HOSTROCK COMMENTS: Host may be Upper Triassic Karmutsen Formation.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

"At a point just east of Carrington Bay an obscure appearance of stratification occurs with a strike of about 333 degrees and small quantities of molybdenite were found in quartz veins" (Geological Survey of Canada Annual Report 1886, page 23B). Stratification may refer to the Upper Triassic Karmutsen Formation mapped in the area and enclosed by granitic rocks of the Juro-Cretaceous Coast Plutonic Complex (Geological Survey of Canada Open File 480).

BIBLIOGRAPHY

EMPR BULL 9 (1940) p. 85
GSC ANN RPT 1886, p. 23B
GSC EC GEOL 20, p. 256
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/08

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 050**

NATIONAL MINERAL INVENTORY:

NAME(S): **SUNSET**, MOLLY GIBSON, FS

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 58 N
LONGITUDE: 125 23 58 W
ELEVATION: 320 Metres

NORTHING: 5559856
EASTING: 328641

LOCATION ACCURACY: Within 500M

COMMENTS: Location of FS vein zone on map in Assessment Report 4179.

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Bornite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Volcanic Rock

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: FS

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1973

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

14.3976

Grams per tonne

Copper

2.6900

Per cent

COMMENTS: 2.3 kilograms composite grab.

REFERENCE: Assessment Report 4179.

ORE ZONE: SUNSET

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1901

SAMPLE TYPE: Grab

COMMODITY

GRADE

Copper

6.0000

Per cent

COMMENTS: Sample of vein matter.

REFERENCE: Minister of Mines Annual Report 1901, page 1115.

CAPSULE GEOLOGY

The Sunset prospect is located approximately 18 kilometres northwest of Campbell River on the east coast of Vancouver Island, immediately west of Brown Bay. The area is underlain by a very thick, gently dipping to flat-lying sequence of Upper Triassic submarine volcanic flows of the Karmutsen Formation. Locally minor interflow sediments occur.

Near the turn of the century 139 metres of underground work was completed to explore bornite and chalcopyrite-bearing quartz veins. Over a width of 15 to 23 metres several bornite mineralized veins varying in width from 2.5 to 92 centimetres occur. Azimuths vary from 330 to 345 degrees and dips are either vertical or very steep to the southwest. A 2.3 kilogram composite grab sample of mineralized vein quartz assayed 2.69 per cent copper, 14.3976 grams per tonne silver and trace gold (Assessment Report 4179). In 1901 the vein is quoted as assaying an average of 6 per cent copper (Minister of Mines Annual Report 1901, page 1115).

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RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
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PAGE: 1023
REPORT: RGEN0100

BIBLIOGRAPHY

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EMPR ASS RPT *4179, *4823, 11100
EMPR PF (Eastwood, P. (1974): Notes)
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/28

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 051**

NATIONAL MINERAL INVENTORY:

NAME(S): **OPEN BAY EPITHERMAL**, NAT 7, GOLD EXCHANGE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 34 N
LONGITUDE: 125 12 35 W
ELEVATION: 46 Metres

NORTHING: 5556843
EASTING: 342112

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map in Assessment Report 16143.

COMMODITIES: Mercury Arsenic Antimony

MINERALS

SIGNIFICANT: Cinnabar Stibnite
ASSOCIATED: Pyrite Marcasite Pyrrhotite
ALTERATION: Goethite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia Massive Disseminated
CLASSIFICATION: Epithermal Replacement Industrial Min.
TYPE: H05 Epithermal Au-Ag: low sulphidation I08 Silica-Hg carbonate

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Limestone
Andesitic Volcanic Rock
Quartz Diorite

HOSTROCK COMMENTS: Fossils at Open Bay are described as an Upper Triassic fauna of probably later Karnian age (Bulletin 40, page 36).

GEOLOGICAL SETTING

TECTONIC BELT: Insular PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Wrangell
METAMORPHIC TYPE: Regional RELATIONSHIP: Syn-mineralization GRADE:
COMMENTS: Occurrence within 1 kilometre of contact with Coast Plutonic Complex.

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1986
SAMPLE TYPE: Channel

COMMODITY	GRADE
Arsenic	1.2100 Per cent
Mercury	0.0016 Per cent
Antimony	0.1300 Per cent

COMMENTS: Average of 7 three metre samples across mineralized zone.
REFERENCE: Assessment Report 16143.

CAPSULE GEOLOGY

The Open Bay Epithermal occurrence is located 400 metres north of Open Bay on the eastern shore of Quadra Island. The geology of the area consists of a northwest trending belt of Upper Triassic Quatsino Formation limestone with interbedded andesitic volcanics and possibly sediments. To the west of the belt and stratigraphically below, lies the main body of the andesitic volcanics, the Upper Triassic Karmutsen Formation. To the east the belt is in contact (partly intrusive, partly faulted) with quartz diorite of the Juro-Cretaceous Coast Plutonic Complex.

The epithermal zone occurs in strongly brecciated limestone. The zone contains cinnibar, stibnite and several per cent sulphides (pyrite, marcasite and pyrrhotite). Some areas are massive, fine-grained and black with disseminated stibnite and cinnibar on fracture plane surfaces. Other areas are light coloured and very porous with disseminated cinnibar. Seven 3-metre samples across the zone averaged 1.21 per cent arsenic, 0.13 per cent antimony and

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CAPSULE GEOLOGY

0.0016 per cent mercury (Assessment Report 16143). Some of the arsenic could be contained in the yellow to greenish-yellow goethite(?) occurring on some outcrops.

BIBLIOGRAPHY

EMPR ASS RPT *16143, 17797
EMPR BULL 23; *40
GSC MAP 65A; 1386A
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23,41-44;
73-1A, pp. 42,43
GSC SUM RPT 1913, p. 53
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of
British Columbia, Vol. 1: Vancouver Island, p. 169

DATE CODED: 1988/01/16
DATE REVISED: 1989/01/16

CODED BY: SED
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 052**

NATIONAL MINERAL INVENTORY: 092K3 V1

NAME(S): **RADIUM**, SENATOR, VANADIUM,
QUADRA

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 59 N
LONGITUDE: 125 16 05 W
ELEVATION: 120 Metres

NORTHING: 5554035
EASTING: 337855

LOCATION ACCURACY: Within 500M

COMMENTS: Locations of carnotite sampling in Property File.

COMMODITIES: Vanadium Uranium Copper

MINERALS

SIGNIFICANT: Carnotite Chalcocite
ASSOCIATED: Quartz
ALTERATION: Chlorite Malachite
ALTERATION TYPE: Chloritic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Augite Andesite
Siliceous Carbonaceous Rock

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The Radium area is underlain by fractured and sheared chloritic andesitic and basaltic rocks of the Upper Triassic Karmutsen Formation. The flow rocks are commonly amygdaloidal and dip gently south and southwest at about 15 degrees. The amygdules are filled with chlorite, quartz, calcite and amphibole and locally chalcocite. Flows of amygdaloidal augite andesite contain disseminated chalcocite and a fractured, thinly banded, black siliceous carbonaceous rock that carries vanadium values. Sparsely disseminated chalcocite and some malachite staining are also present within this black rock which is also cut by minute quartz veinlets. Carnotite was reported in fractures within the volcanic rocks. An analysis of a carnotite sample taken in 1932 gave 24.5 per cent uranium and 21.1 per cent vanadium oxide (Geological Survey of Canada, Economic Geology 11). The occurrence of carnotite could not be confirmed during a field visit by the Geological Survey of Canada (Dr. R.T. Bell, personal communication).

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1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1932-A208;
1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, 5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; 1974-207,208
EMPR MAP 22
EMPR PF (*092K052-Maps by W.F. Seyer, 1932; P.B. Freeland, 1942;
Rpts. by W.F. Robertson, 1922; R. Clark, 1922; D.C. Douglas, 1968;
092K General-Jambor, J.L. (1957): Vanadium-Bearing Interlava
Sediment from the Campbell River Area, British Columbia, M.Sc.

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- EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd., New Ainsworth Mines Ltd.)
- GSC EC GEOL *11, p. 139; 16, p. 46; 16 (Rev.), p. 235; 27, p. 50
- GSC MAP 1386A
- GSC MEM 23, pp. 125-127
- GSC OF 463; 480; 551
- GSC P 66-57, p. 9
- GSC SUM RPT *1932, Part AII, pp. 51-56
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- Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 167

DATE CODED: 1985/07/24
DATE REVISED: 1987/09/02

CODED BY: GSB
REVISED BY: LDJ

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 053**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER KING (L.1835)**, THEODOSIA (L.1831), BLUEJACKET (L.1833),
SILVER KING (L.1832), COPPER CHIEF (L.1834)

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K02E
BC MAP:
LATITUDE: 50 06 58 N
LONGITUDE: 124 33 27 W
ELEVATION: 500 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Centre of Lot 1835 from NTS Map 092K02E.

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5552702
EASTING: 388650

COMMODITIES: Copper Zinc Silver Iron Lead

MINERALS

SIGNIFICANT: Chalcopyrite Magnetite Sphalerite Galena
ALTERATION: Epidote
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Concordant Stratabound
CLASSIFICATION: Skarn Industrial Min.
TYPE: K01 Cu skarn K02 Pb-Zn skarn
DIMENSION: STRIKE/DIP: 045/90S TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Unknown	Unnamed/Unknown Group	Unnamed/Unknown Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Limestone
Granodiorite
Greenstone
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: DUMP REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1926
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 82.2700 Grams per tonne
Copper 2.0000 Per cent
Zinc 17.0000 Per cent
COMMENTS: Grab sample from dump at adit entrance.
REFERENCE: Minister of Mines Annual Report 1926, page 310.

CAPSULE GEOLOGY

The Copper King showing is located 1500 metres southwest of Olsen Lake in the vicinity of Theodosia River. The geology of the area consists of granodiorites of the Juro-Cretaceous Coast Plutonic Complex within which are contained small northwest trending remnants of metamorphosed country rock.

The showing is skarn-hosted and consists of two mineralized zones, the Zinc Zone and the Magnetite-Copper Zone. The Zinc Zone, composed of sphalerite and minor galena, is at the contact between granodiorite and limestone (now a skarn). The Magnetite-Copper Zone, composed of magnetite and associated chalcopyrite, occurs at the contact of limestone with greenstone. The two zones are separated by a distance of 80 metres. The mineralization within both zones has a northwest strike and dips near vertical.

A grab sample in 1926 from the dump at the mouth of the adit in the Zinc Zone assayed 17.0 per cent zinc, 2.0 per cent copper and 82.27 grams per tonne silver. Gold was measurable only in trace amounts and lead was unmeasurable (Minister of Mines Annual Report 1926, page 310).

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CAPSULE GEOLOGY

A grab sample, also in 1926 from the dump of the glory hole in the Magnetite-Copper Zone assayed 46.6 per cent iron, 5.7 per cent copper, 68.56 grams per tonne silver and trace gold (Minister of Mines Annual Report 1926, page 310).

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*1961-91; 1966-56
EMPR ASS RPT 310
EMPR OF 1988-28
EMPR PF (Map (1928): Plan of Theodosia Mineral Claims near Theodosia
Arm, British Columbia)
GSC MAP 1386A
GSC MEM 23, p. 140
GSC OF 480
Falconbridge File

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/01

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 054**

NATIONAL MINERAL INVENTORY: 092K6 Au1

NAME(S): **ALLS UP**, ALL UP (L.366), ALEXANDRIA

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:

Underground

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 29 31 N
LONGITUDE: 125 22 33 W
ELEVATION: 2 Metres

NORTHING: 5596026
EASTING: 331484

LOCATION ACCURACY: Within 500M

COMMENTS: Quartz veins on the shore of Phillips Arm (Assessment Report 14466).
See Alexandria (092K 028).

COMMODITIES: Silver Gold

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Hydrothermal Epigenetic Porphyry Igneous-contact
TYPE: I01 Au-quartz veins

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
Wrangell
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis
SAMPLE TYPE: Channel YEAR: 1985
COMMODITY
Silver 2.3000 Grams per tonne
Gold 0.0550 Grams per tonne
COMMENTS: Channel sample 0.3 metre long.
REFERENCE: Assessment Report 14466.

CAPSULE GEOLOGY

Most of the area is underlain by a persistent, over 12 kilometres long, band of stratified rock. The band trends northwest and separates Jurassic to Cretaceous Coast Plutonic Complex rock of two different compositions, diorite and granodiorite. The stratified metavolcanic and metasedimentary rocks are not presently correlated with a specific group and/or formation.

The Alls Up adit exposes multiple 5 to 10 centimetre wide quartz veins with minor pyrite (less than 1.0 per cent) within a granodiorite host. A sea level exposure of the quartz veins is 80 centimetres wide with coarse pyrite on selvages. The best assay is recorded for a channel sample 0.3 metre long from within the adit. The assay was 0.055 gram per tonne gold and 2.3 grams per tonne silver (Assessment Report 14466).

BIBLIOGRAPHY

EMPR AR 1898-1142
EMPR ASS RPT 14466, 25321
EMPR EXPL 1986-A73,C274
GSC MAP 65A; 196A; 1386A
GSC MEM 23, 146 pp.
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/27

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 055**

NATIONAL MINERAL INVENTORY:

NAME(S): **WHITE**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K05W 092K04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 14 59 N
LONGITUDE: 125 57 05 W
ELEVATION: 107 Metres

NORTHING: 5570565
EASTING: 289597

LOCATION ACCURACY: Within 5 KM

COMMENTS: Location from description Minister of Mines Annual Report 1966, page 68.

COMMODITIES: Silver Lead Zinc Copper Cadmium

MINERALS

SIGNIFICANT: Sphalerite Galena Chalcopyrite Greenockite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Epigenetic Skarn
TYPE: K02 Pb-Zn skarn

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Vancouver Quatsino

LITHOLOGY: Limestone
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Insular PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Wrangell
METAMORPHIC TYPE: Regional RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

The White showing is in the White River Valley 17.6 kilometres by logging road south of the community of Sayward. The mineralization is primarily sphalerite with minor quantities of galena, chalcopyrite and greenockite. The mineralization is confined mainly to northwest and northeast trending fractures and shears in a skarn zone in limestone of the Upper Triassic Quatsino Formation.

BIBLIOGRAPHY

EMPR AR *1966-68
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/20

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 056**

NATIONAL MINERAL INVENTORY:

NAME(S): **LARK**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K04E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 04 30 N
LONGITUDE: 125 31 45 W
ELEVATION: 290 Metres

NORTHING: 5550034
EASTING: 319034

LOCATION ACCURACY: Within 500M

COMMENTS: Located 61 to 91 metres northeast of road on Lark claims (Assessment Report 3180).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Copper
ASSOCIATED: Hematite Calcite
ALTERATION: Prehnite Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu
DIMENSION:

STRIKE/DIP: 325/60S

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Andesite Flow Breccia
Amygdaloidal Andesite
Amygdaloidal Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Lark showing is located approximately 20 kilometres west of Campbell River and directly north of Boot Lake. The area is underlain by Upper Triassic Karmutsen Formation amygdaloidal andesites and basalts. The volcanics strike 325 degrees and dip 60 degrees south-west.

Trenches expose an andesite flow breccia with occasional red rhyolite fragments. The breccia contains interstitial calcite and scattered grains and veinlets of malachite. Prehnite and hematite are present and there are scattered grains and veinlets of native copper.

BIBLIOGRAPHY

EMPR AR *1966-70
EMPR ASS RPT 3180
EMPR GEM 1971-314
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/22

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 057**

NATIONAL MINERAL INVENTORY: 092K2 Cu1

NAME(S): **OK SOUTH**, O.K., IN,
DEE, O.K. SOUTH, SOUTH BRECCIA,
OK

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K02E
BC MAP:
LATITUDE: 50 01 17 N
LONGITUDE: 124 38 26 W
ELEVATION: Metres
LOCATION ACCURACY: Within 500M
COMMENTS: South zone, south and east of a small lake known as Claim Lake
(Assessment Report 8748). See also OK North (092K 008).

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5542298
EASTING: 382481

COMMODITIES: Copper Molybdenum Silver Gold Zinc
Rhenium

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite Sphalerite Bornite
ASSOCIATED: Magnetite
ALTERATION: Malachite Azurite Limonite Chlorite Epidote
ALTERATION TYPE: Oxidation Argillic Sericitic Propylitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex
Tertiary			Unnamed/Unknown Informal

LITHOLOGY: Quartz Monzonite
Leucocratic Feldspar Porphyry
Granodiorite
Quartz Porphyry Dike
Diorite Dike
Andesite Dike
Intrusive Breccia

HOSTROCK COMMENTS: The informal O.K. intrusive complex is assumed to be Tertiary or younger in age.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SOUTH

REPORT ON: N

CATEGORY:	Assay/analysis	YEAR:	1980
SAMPLE TYPE:	Channel		
COMMODITY		GRADE	
Silver		4.1136	Grams per tonne
Gold		0.0686	Grams per tonne
Copper		0.2400	Per cent
Molybdenum		0.4800	Per cent

COMMENTS: Across 9.0 metres.
REFERENCE: Assessment Report 8748.

CAPSULE GEOLOGY

The OK South deposit is located east of Okeover Inlet and south of Theodosia Inlet in the Bunster Hills. Powell River is located about 25 kilometres to the south. The North zone (092K 008) is located 2.3 kilometres to the north, near a small lake known as North Lake.

Since its discovery in 1965, the O.K. property has been explored by a number of geological, geochemical and geophysical surveys and by more than 14,000 metres of percussion and diamond drilling. This work outlined several copper-molybdenum mineralized zones over a northerly trend of five kilometres length. Between 1966 and 1985, several

CAPSULE GEOLOGY

companies (Asarco Exploration Company of Canada Limited, Falconbridge, Granite Mountain Mines, Western Mines, Aquarius Resources Limited) carried out the exploration work. In 1994, CanQuest Resource Corporation optioned the property and conducted geological, geophysical and geochemical surveys and drilling.

Two phases of intrusions occur within the Jurassic to Cretaceous Coast Plutonic Complex. Granodiorite is intruded by an elliptical, 1.6 kilometre long, leucocratic feldspar porphyry body, referred to as the O.K. intrusive complex and assumed to be Tertiary or younger in age. The leucocratic feldspar porphyry dike-like body is elongated north-northwest, varies from 30 to 600 metres in width, and has been inferred to be the core of the larger variably altered granodiorite body. At least six phases of intrusions have been noted on the property, characteristic of many porphyry deposits. Later phases include narrow quartz-eye porphyries and postmineral diorites, which occur as north-northeasterly dikes. They vary from 1 to 60 metres in width. Discontinuous andesite dikes represent the latest intrusive phase. Rocks in the vicinity of the O.K. South exhibit moderate to strong phyllic and argillic alteration. Elsewhere on the property, alteration is less intense and consists predominantly of propylitic alteration to chlorite and epidote. Post mineralization, north-northwest trending faults cut both granitic rocks of the Coast Plutonic Complex and the younger O.K. intrusive complex.

Mineralization occurs in fractures, as quartz stringers, irregular veinlets, blebs and some disseminations. Intrusive breccias peripheral to the granodiorite host the higher grade copper mineralization. Trenching and limited diamond drilling suggest a north-northwest trend to the breccia zone, which consists of rounded two to five centimetre clasts of varying lithologies within a fine-grained matrix containing a high percentage of sulphide minerals.

Sulphide minerals include chalcopyrite, molybdenite and pyrite with minor sphalerite and bornite. Minor magnetite is associated erratically with pyrite and chalcopyrite. Thin veneers of malachite, limonite and azurite are also present.

A 9.0-metre channel sample in the South zone assayed 0.24 per cent copper, 0.48 per cent molybdenum and 4.1136 grams per tonne silver (Assessment Report 8748). Sampling in 1993 yielded values as high as 0.15 per cent molybdenum, 4.69 per cent copper, 32.9 grams per tonne silver and 0.48 gram per tonne gold (Assessment Report 23515). Rhenium occurs in grab samples in the area.

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EMPR ASS RPT 1573, 2594, 2595, 5026, 6846, *8748, *9520, *10577, *11162, *23511, 24038, 24553, 25068, 25594
EMPR EXPL 1975-G53; 1977-E172; 1980-264; 1982-220,221; 2002-29-40
EMPR FIELDWORK 1975, p. 44
EMPR GEM 1970-229; 1971-313; 1972-284; 1974-201
EMPR PF (Randall, A.W. (1974): Report on the Diamond Drill Project on the OK property; Canquest Resource Corporation (Nov. 1999): OK property, 2 p.)
CIM *Special Volume 15, pp. 311-316
GCNL #135,#175, 1968; #240, 1973; #241, 1974; #15, 1975; #109,#168, 1976; #121,#181, 1977; #177, 1979; #76, 1980; #150, 1981; #26, 1983; #212, 1984
N MINER Sept.12,27, 1979; Aug.20, 1981; Feb.17,24, 1983
PR REL CanQuest Resource Corporation, February 1, April 14, 1999
WWW <http://www.canquest.bc.ca/ok.htm>
Falconbridge File
Placer Dome File

DATE CODED: 1985/07/24
DATE REVISED: 1999/03/19

CODED BY: GSB
REVISED BY: LDJ

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 058**

NATIONAL MINERAL INVENTORY: 092K3 Cu5

NAME(S): **DOE**, COPPER CLIFF

STATUS: Developed Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 03 N
LONGITUDE: 125 16 00 W
ELEVATION: 61 Metres

NORTHING: 5552302
EASTING: 337902

LOCATION ACCURACY: Within 500M

COMMENTS: Trenches, 3.75 kilometres west from the village of Heriot Bay, 5.25 kilometres south from Morte Lake (Assessment Report 5076).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite
COMMENTS: Mineralization is hosted in fractures.

ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu
DIMENSION:
COMMENTS: Attitude of andesite flows.

STRIKE/DIP: 135/20S TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: DOE REPORT ON: Y
CATEGORY: Indicated YEAR: 1973
QUANTITY: 4082 Tonnes
COMMODITY _____ GRADE _____
Copper 3.0500 Per cent

COMMENTS: Drill indicated. Resource estimated by Cooke based on a re-evaluation of earlier data compiled by Sheppard and Weber.
REFERENCE: SMF May 7, 1973-Prince Stewart Mining Ltd., F.G. Cooke, April 12, 1973.

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The region is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

In this region chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

CAPSULE GEOLOGY

The Doe is comprised of disseminated chalcocite mineralization within fractured chloritic amygdaloidal andesitic flows which strike 135 degrees and dip 20 degrees southwest.

Drill indicated reserves are 4082 tonnes grading 3.05 per cent copper. The resource is estimated by Cooke based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mining Ltd., F.G. Cooke, April 12, 1973).

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K 012; 092K 101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MIN BULL MR 223 B.C. 167
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MEM 23, pp. 125-127
GSC MAP 1386A
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 168

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/16

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 059**

NATIONAL MINERAL INVENTORY: 092K3 Cu7

NAME(S): **WHITE SWAN**, SUNRISE, SNOSRAP (L.1501)

STATUS: Developed Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 16 N
LONGITUDE: 125 15 34 W
ELEVATION: 90 Metres

NORTHING: 5561952
EASTING: 338711

LOCATION ACCURACY: Within 500M

COMMENTS: About 6.5 kilometres southeast of Granite Bay, adjoining the Geiler claim (L.1369) on the southeast (Minister of Mines Annual Report 1913, page 72). Geological Survey of Canada Summary Report for 1913 reports the White Swan as being part of the Sunrise group of claims, while the 1910 Minister of Mines Annual Report refers to the White Swan group. The group consisted of the White Swan, Sunrise and Mystic Cave claims with the addition of the Geiler claim according to the Summary Report 1913. The area is now held as the Snosrap (Lot 1501) claim.

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Arsenopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Garnet Epidote
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform Vein
CLASSIFICATION: Skarn Hydrothermal Epigenetic
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Andesite
Intrusive Rock

HOSTROCK COMMENTS: Mineralization occurs in limestone and andesite near their contact.
Intrusive rock occurs several hundred metres to the east.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1913

COMMODITY	GRADE	
Silver	6.8600	Grams per tonne
Copper	1.0000	Per cent

COMMENTS: Sample of pyrrhotite from quartz vein.
REFERENCE: Minister of Mines Annual Report 1913, page 285.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanics of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Coast Plutonic Complex.

On the White Swan occurrence a 3.4 by 2.6 metre shaft has been sunk for 15 metres, and from the bottom of the shaft 30 metres or more of drifts have been driven. In addition, considerable surface work in the shape of pits, trenches and open-cuts has been done.

CAPSULE GEOLOGY

Several bodies of pyrrhotite occur in limestone and andesite near their contact. A large pit, about 4 metres deep, has exposed three parallel mineralized fracture zones which strike about 72 degrees, all of which are included within a width of 5.5 metres. The larger central zone is about 1.2 metres thick, and the smaller deposits on either side range from 5 to 40 centimetres in thickness. These mineralized zones or deposits are composed mainly of pyrrhotite, chalcopyrite, arsenopyrite, pyrite, quartz, garnets and epidote, the better ore material consisting mainly of quartz, pyrrhotite and chalcopyrite. An average sample was taken across the central deposit, 1.2 metres from the surface. This was assayed and proved to contain trace gold, no silver and 0.62 per cent copper (Geological Survey of Canada Summary Report 1913, page 73).

A mass of pyrrhotite about 3.6 metres thick was exposed in the old water filled shaft in 1913. An average sample was taken across this width and it assayed trace gold, no silver and 0.70 per cent copper (Geological Survey of Canada Summary Report 1913, page 73).

A 6-metre wide quartz vein containing pyrite and chalcopyrite was exposed at the northwest end of the old White Swan claim. A sample of pyrrhotite from the surface assayed trace gold, 6.86 grams per tonne silver and 1.0 per cent copper (Minister of Mines Annual Report 1913, page 285).

BIBLIOGRAPHY

EMPR AR *1910-159; *1913-285,286
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 134
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/02

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 060**

NATIONAL MINERAL INVENTORY: 092K3 Cu4

NAME(S): **QUADRA COPPER**, COPPER ROAD

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 50 12 25 N
LONGITUDE: 125 18 37 W
ELEVATION: 457 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5564194
EASTING: 335149

LOCATION ACCURACY: Within 500M

COMMENTS:

COMMODITIES: Copper Silver Gold

MINERALS

SIGNIFICANT: Bornite Chalcopyrite Copper
ASSOCIATED: Quartz Calcite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu
DIMENSION: 1400 x 9 Metres
COMMENTS: Shear zone

106 Cu±Ag quartz veins
STRIKE/DIP: 100/80N TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: EAST

REPORT ON: Y

CATEGORY: Indicated
QUANTITY: 68114 Tonnes

YEAR: 1971

COMMODITY	GRADE	
Silver	13.7000	Grams per tonne
Copper	2.4400	Per cent

COMMENTS: Drill indicated reserves.

REFERENCE: SMF July 24, 1972-Univex Mining Corp.Ltd.,A.F. Roberts, May 11, 1971.

ORE ZONE: WEST

REPORT ON: Y

CATEGORY: Indicated
QUANTITY: 83217 Tonnes

YEAR: 1971

COMMODITY	GRADE	
Silver	13.7000	Grams per tonne
Copper	4.1000	Per cent

COMMENTS: Drill indicated reserves.

REFERENCE: SMF July 24, 1972-Univex Mining Corp. Ltd., A.F. Roberts, May 11,1971.

CAPSULE GEOLOGY

The Copper Road occurrence is underlain by dark green to green andesitic lavas of the Upper Triassic Karmutsen Formation, Vancouver Group. Amygdaloidal areas contain zeolite and epidote, and in one place hematite and chalcopyrite-filled amygdules.

A shear up to 9 metres wide and 1400 metres long contains quartz, calcite, bornite, chalcopyrite, native copper and malachite. The shear strikes 100 degrees and dips 80 degrees north.

Drill indicated reserves in West zone are 83,217 tonnes grading 13.7 grams per tonne silver and 4.1 per cent copper. Drill indicated reserves in the East zone are 68,114 tonnes grading 2.44 per cent copper and 13.7 grams per tonne silver (Statement of Material Facts July 24, 1972 - Univex Mining Corp. Ltd., A.F. Roberts, May 11, 1971).

BIBLIOGRAPHY

EMPR AR 1953-165; 1956-A48; 1961-91; *1962-95; *1963-98; 1964-151;
1965-225; 1966-71; 1967-72; 1968-A53, 100
EMPR ASS RPT 478
EMPR BC METAL MM00161
EMPR BULL 23; 40
EMPR GEM 1969-211; 1970-280; 1973-253; 1974-208; 1975-E112
EMPR INDEX 3-193; 4-120
EMPR MAP 65 (1989)
EMPR OF 1992-1
EMPR PF (Claim maps and diamond drill hole plan, 1962)
EMR MIN BULL MR 223 (1989) B.C. 166
EMR MP CORPFILE (Univex Mining Corp. Ltd.; Black Marlin Energy
Corporation)
GSC MAP 120A; 1386A
GSC MEM 23
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
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GCNL Dec.7, 1972; #4, 1980
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of
British Columbia, Vol. 1: Vancouver Island, p. 171
Statement of Material Facts, VSE, Univex Mining Corp. Ltd., July 24,
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Wahl, H. (1982): Copper Road Property, Black Marlin Energy
Corporation Prospectus, October 1983)

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/11

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 061**

NATIONAL MINERAL INVENTORY:

NAME(S): **SLAVIN**, WHITE HOPE, CRE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 05 59 N
LONGITUDE: 125 15 14 W
ELEVATION: 30 Metres

NORTHING: 5552151
EASTING: 338812

LOCATION ACCURACY: Within 500M

COMMENTS: Adit, 3 kilometres west from the village of Heriot Bay, 50 metres east from the shoreline in Gowlland Harbour (Property File, 092K012, Plan showing copper prospects in Gowlland Harbour, Quadra Island 1953).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite
COMMENTS: Mineralization is hosted in fractures.
ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: ADIT

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab

YEAR: 1914

COMMODITY	GRADE	
Silver	3.4000	Grams per tonne
Copper	1.5000	Per cent

COMMENTS: Sample from adit.

REFERENCE: Minister of Mines Annual Report 1914, page 385.

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The region is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

In this region, chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Slavin is comprised of chalcocite mineralization hosted in

CAPSULE GEOLOGY

fractured, chloritic amygdaloidal andesite flows.

BIBLIOGRAPHY

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218;
1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-
A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the
Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of
Examination and Estimates of Production on the Quadra Mining
Company Limited Property; Bacon, W.R. (1953): Preliminary Report
for Department of Mines' Information; 092K012; 092K101-Sheppard,
E.P. (1972): Geological Report on the Contact Claims; 092K
General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/10

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 062**

NATIONAL MINERAL INVENTORY:

NAME(S): **SKOOKUM CHUCK**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 49 N
LONGITUDE: 125 20 55 W
ELEVATION: 1 Metres

NORTHING: 5557610
EASTING: 332204

LOCATION ACCURACY: Within 1 KM

COMMENTS: From description, Geological Survey of Canada Memoir 23, page 128.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Amygdaloidal Greenstone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

"On the Skookum Chuck mineral claim (on Quadra Island), opposite Seymour Narrows, two shafts, 9 and 20 feet (2 and 7 metres) deep respectively, have been sunk in amygdaloidal greenstones. A few specks of chalcocite and chalcopyrite were noticed in samples lying about the mouths of the shafts which contained water" (Geological Survey of Canada Memoir 23, page 128). The Geological Survey of Canada Open File Map 480 shows the area to be underlain by Upper Triassic Karmutsen Formation volcanics rocks.

BIBLIOGRAPHY

GSC MEM *23, p. 128
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/31

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 063**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOMESTAKE (L.2475)**, BLACK WARRIOR, WEST REDONDA ISLAND

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 16 50 N
LONGITUDE: 124 51 54 W
ELEVATION: 457 Metres

NORTHING: 5571489
EASTING: 367125

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description in Minister of Mines Annual Report 1919, page 216.

COMMODITIES: Iron Magnetite

MINERALS

SIGNIFICANT: Magnetite
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn Replacement Industrial Min.
TYPE: K03 Fe skarn
DIMENSION: 0018 Metres STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Unknown
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Diorite
Greenstone
Skarn

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

The Homestake (L.2475) showing is located in the bed of Homestake Creek at an elevation of 457 metres and approximately 1.0 kilometre from the shore of Pryce Channel, on West Redonda Island.

The island geology is composed of intrusive rocks of the Jurassic to Cretaceous Coast Plutonic Complex. Age dating from the southern part of West Redonda Island indicates an age of 111 to 113 million years by potassium-argon from biotite and hornblende (Geological Survey of Canada Open File 480). Locally, highly metamorphosed greenstone and limestone of unknown group, formation or age are found in diorite.

Magnetite is recorded to occur in outcrop for a width of around 18.2 metres. The magnetite, where it outcrops, does not occur at the actual line of contact between limestone and diorite, but a short distance away. No assays, or examinations of the extent and quality of the magnetite have been made at this location (Minister of Mines Annual Report 1918, page 283).

There are three magnetite occurrences on West Redonda Island. They have almost identical geologic settings, and are close enough to each other to indicate the possibility of a continuous zone (Open File 1988-28, page 68). The three occurrences are Redonda Iron Mine (092K 039), Black Warrior (092K 040) and Homestake (092K 063).

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EMPR OF *1988-28, p. 68
GSC MAP 65A; 1386A
GSC MEM 23, pp. 131-133
GSC OF *480

DATE CODED: 1989/01/31
DATE REVISED: 1989/01/31

CODED BY: SED
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 063**

MINFILE NUMBER: **092K 064**

NATIONAL MINERAL INVENTORY:

NAME(S): **FLO, CU**

MINING DIVISION: Vancouver

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K07W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 21 13 N
 LONGITUDE: 124 46 21 W
 ELEVATION: 700 Metres

NORTHING: 5579450
 EASTING: 373908

LOCATION ACCURACY: Within 1 KM

COMMENTS: Location of sample 61145 on map in Assessment Report 16854.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrite
 ASSOCIATED: Quartz
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Massive Disseminated
 CLASSIFICATION: Hydrothermal Epigenetic
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Unknown	Unnamed/Unknown Group	Unnamed/Unknown Formation	
Jurassic-Cretaceous			Coast Plutonic Complex
Unknown			Unnamed/Unknown Informal

LITHOLOGY: Greenstone
 Felsic Volcanic Rock
 Basalt
 Granodiorite
 Quartz Monzonite
 Andesitic Dike
 Felsic Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Plutonic Rocks
 METAMORPHIC TYPE: Contact
 PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 RELATIONSHIP: Syn-mineralization
 GRADE:

INVENTORY

ORE ZONE: VEINS
 REPORT ON: N
 CATEGORY: Assay/analysis
 SAMPLE TYPE: Grab
 YEAR: 1986

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	13.8000	Grams per tonne
Gold	0.2300	Grams per tonne
Copper	0.2500	Per cent

COMMENTS: Sample from massive pyrite veins in greenstone.
 REFERENCE: Assessment Report 16854.

CAPSULE GEOLOGY

The Flo showing is located on the western side of Toba Inlet near the entrance. The showing is best exposed in a creek bed from approximately 600 metres elevation upwards. The area is underlain by granodiorite and quartz monzonite of the Jurassic to Cretaceous Coast Plutonic Complex. The granodiorite and quartz monzonite have been intruded by andesitic to felsic dikes. The dikes trend north and northeast. Contained within the intrusion at this location is a small sliver of metamorphosed greenstone (porphyritic andesite/basalt) and felsic volcanic rocks with minor basalt. Breccia is noted in the greenstone. Pyritic veins and veinlets up to 2.5 centimetres wide are associated with the dikes in fractured granodiorite and quartz monzonite. Also, in the vicinity of the breccia the volcanic rocks carry up to 10 per cent disseminated pyrite and the breccias show extensive pyrite fracture-filling. The rock geochemistry indicates that gold is associated with the pyrite. An average assay from massive pyrite veins in greenstone returned

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1046
REPORT: RGEN0100

CAPSULE GEOLOGY

0.230 gram per tonne gold, 13.8 grams per tonne silver, 0.25 per cent copper, 0.0176 per cent zinc, 0.0082 per cent lead and 0.0012 per cent arsenic. Another sample from pyrite-veined diorite with minor quartz assayed 0.540 gram per tonne gold (Assessment Report 16854).

Several samples were collected in 1993 by Aquaterre Mineral Development Ltd., which yielded lower values. The highest values of 12 rock samples were 1.0 gram per tonne silver, 0.027 per cent copper and 0.019 per cent zinc (Assessment Report 23231).

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EMPR ASS RPT *16854, 23231
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A,
pp. 42,43

DATE CODED: 1989/02/01
DATE REVISED: 1997/05/30

CODED BY: SED
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 065**

NATIONAL MINERAL INVENTORY:

NAME(S): **BEAR, BEAR CREEK, AMOR DE COSMOS CREEK,
HUMPBACK BABY**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K05E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 20 43 N
LONGITUDE: 125 41 31 W
ELEVATION: 335 Metres

NORTHING: 5580487
EASTING: 308474

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map, southern edge of Bear 9 claim (Assessment Report 2405).

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Chalcopyrite
ASSOCIATED: Pyrite Pyrrhotite Bornite
ALTERATION: Quartz Epidote
ALTERATION TYPE: Silicific'n Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu

STRIKE/DIP: 290/70S

TREND/PLUNGE:

DIMENSION:
COMMENTS: Bedding attitude.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Andesite
Basalt
Amygdaloidal Flow
Porphyritic Flow
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

RELATIONSHIP:

GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1969

COMMODITY

Gold

GRADE

0.3428

Grams per tonne

Copper

0.9700

Per cent

COMMENTS: Sample from road side.
REFERENCE: Assessment Report 2405.

CAPSULE GEOLOGY

The Bear showing is located approximately 1.0 kilometre east of Amor de Cosmos Creek (formerly Bear Creek), 1.5 kilometres inland from Humpback Bay.

The area is underlain by Upper Triassic Karmutsen Formation andesite, basalt and to a lesser degree by poorly developed volcanic breccias. The flow rocks are mainly dark green to grey-green in colour and commonly amygdaloidal or porphyritic. Amygdules are usually filled with quartz, epidote and occasionally carbonate. Purplish andesitic fragments varying up to 2.54 centimetres in diameter are widely but apparently thinly scattered in the basalt and andesite. A bedding attitude in the volcanics of 290 degrees and 70 degrees southwest dip has been measured. An irregular lens of purplish grey limestone has also been noted. It varies up to 16 centimetres in width and about 18 metres in length. Epidote and quartz are the most obvious alteration minerals in the area.

Mineralization in the form of chalcopyrite is disseminated in

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CAPSULE GEOLOGY

a green epidotized volcanic rock. Sparce disseminations of pyrite, chalcopyrite and rare pyrrhotite and bornite(?) have been located in the area. The best assay from a road side was 0.97 per cent copper, 0.3428 grams per tonne gold and trace silver (Assessment Report 2405).
This occurrence is near the Copper King-Copper Queen (092K 042).

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EMPR ASS RPT *2405
EMPR GEM 1969-211
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/24

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 066**

NATIONAL MINERAL INVENTORY:

NAME(S): **ALLEN - SUDS**, MENZIES BAY VANADIUM - NORTH, NATIVE 1

MINING DIVISION: Nanaimo

STATUS: Showing
 REGIONS: British Columbia, Vancouver Island
 NTS MAP: 092K03W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 04 N
 LONGITUDE: 125 26 10 W
 ELEVATION: 229 Metres

NORTHING: 5558273
 EASTING: 325968

LOCATION ACCURACY: Within 500M

COMMENTS: Location from maps, Assessment Reports 2004, 9350 and Geological Survey of Canada Economic Geology 27.

COMMODITIES: Copper Vanadium Iron Titanium Manganese
 Chromium

MINERALS

SIGNIFICANT: Copper Bornite Chalcocite Chalcopyrite Volborthite
 ALTERATION: Malachite Azurite Limonite Volborthite
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
 CLASSIFICATION: Industrial Min.
 TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE: Upper Triassic GROUP: Vancouver FORMATION: Karmutsen IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Tuffaceous Sediment/Sedimentary

GEOLOGICAL SETTING

TECTONIC BELT: Insular
 TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
 SAMPLE TYPE: Grab

YEAR: 1973

COMMODITY	GRADE	
Chromium	0.0500	Per cent
Copper	0.8000	Per cent
Iron	4.0000	Per cent
Manganese	0.0200	Per cent
Titanium	0.1600	Per cent
Vanadium	1.5000	Per cent

COMMENTS: Stained sedimentary seam.

REFERENCE: Geological Survey of Canada Economic Geology 27, page 56.

CAPSULE GEOLOGY

The Allen-Suds showing is located approximately 18 kilometres northwest of Campbell River immediately west of Provincial Highway Number 19. The area is underlain by a very thick gently dipping to flat-lying sequence of Upper Triassic Karmutsen Formation massive mafic flows with minor interbedded pillow lava. Locally minor inter-flow sediments occur.

Copper mineralization consists of native copper, bornite, chalcocite and minor chalcopyrite found mostly in the interstices or matrix of tuff and other clastic sediments in the pillow lava. Malachite and azurite staining is also evident. A best assay of 4.1 per cent is recorded over a sample width of 30 centimetres (Assessment Report 9350).

Vanadium has been noted in a flat erratic lenticular seam of hard, dark, tuffaceous sediment at the same location as above. The seam varies in thickness from 2.5 to 50 centimetres and is superficially stained with green, blue, yellow and red secondary iron-copper-vanadium minerals. These include malachite, azurite, limonite and volborthite. A sample of the stained sediment seam assayed 1.5 per cent vanadium, less than 0.8 per cent copper, 4.0 per cent iron, 0.16 per cent titanium, 0.02 per cent manganese and 0.05 per cent chromium (Geological Survey of Canada Economic Geology Series 27, page 56).

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EMPR ASS RPT 491, 2004, *9350
EMPR GEM 1969-211
EMPR PF (Jambor, J.L. (1957): Masters Thesis; Bacon, W.R., (1954):
Letter Re: Argus Consolidated Mines Ltd.)
GSC EC GEOL *27, pp. 55,56
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/29

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 067**

NATIONAL MINERAL INVENTORY:

NAME(S): **STAR**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 29 N
LONGITUDE: 125 25 20 W
ELEVATION: 152 Metres

NORTHING: 5559013
EASTING: 326985

LOCATION ACCURACY: Within 500M

COMMENTS: Location on map in Assessment Report 2004.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Copper
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Volcanic Flow Rock

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core
COMMODITY

YEAR: 1969

Copper

GRADE

0.6000

Per cent

COMMENTS: Drill sample, 30 centimetres depth.
REFERENCE: Assessment Report 2004.

CAPSULE GEOLOGY

The Star showing is located approximately 18 kilometres northwest of Campbell River on the east coast of Vancouver Island and approximately 3 kilometres west of Brown Bay. The area is underlain by a very thick, gently dipping to flat-lying sequence of Upper Triassic submarine volcanic flows of the Karmutsen Formation. Locally minor interflow sediments occur.

The occurrence is described as sporadic native copper mineralization. Samples were obtained by a hand held drill to a depth of 30 centimetres. The best assay was 0.60 per cent copper for a sample 7.6 metres away from the mineralization (Assessment Report 2004).

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EMPR ASS RPT *2004
EMPR GEM 1969-211
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/29

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 068**

NATIONAL MINERAL INVENTORY:

NAME(S): **CHAL 4, CHALCO, CORONATION,
MENZIES BAY**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

LATITUDE: 50 08 01 N
LONGITUDE: 125 24 55 W
ELEVATION: 152 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5556280
EASTING: 327393

LOCATION ACCURACY: Within 500M
COMMENTS: Location of Chal 4 claim (Assessment Report 2004).

COMMODITIES: Copper Vanadium Iron Titanium

MINERALS

SIGNIFICANT: Chalcocite Volborthite
ALTERATION: Malachite Azurite Brochantite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic Industrial Min.
TYPE: E04 Sediment-hosted Cu D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Tuffaceous Argillite
Amygdaloidal Andesite
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1973
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Copper		0.8000	Per cent
Iron		4.6000	Per cent
Titanium		0.4200	Per cent
Vanadium		1.8000	Per cent

COMMENTS: Copper less than 0.8.
REFERENCE: Geological Survey of Canada Economic Geology 27, page 54.

CAPSULE GEOLOGY

The Chal 4 is located approximately 16 kilometres northwest of Campbell River immediately west of Provincial Highway 19. The area is underlain by a very thick, gently dipping to flat-lying sequence of Upper Triassic Karmutsen Formation volcanic flows. Locally minor interflow sediments occur.

The copper-vanadium minerals occur mainly within lenses of sedimentary rock intercalated with volcanic rocks in a northwest trending shear zone at least 366 metres long. A gently dipping, twisting, pinching seam of mineralized sedimentary rocks lies within brown weathered, dark green, amygdaloidal andesite. The seam is approximately 1 metre thick at its widest point, strikes 315 degrees with a 45 degree northeast dip and consists of black tuff-argillite overlain by fossiliferous limestone. The black tuff-argillite is heavily stained yellow, green and blue after chalcocite and volborthite. Malachite, azurite and bronchantite have also been identified. The heavily stained black tuff-argillite was analyzed with the following result: 1.8 per cent vanadium, 4.6 per cent iron, less than 0.8 per cent copper, 0.42 per cent titanium, 0.057 per cent manganese, 0.018 per cent chromium and 0.007 per cent nickel (Geological Survey of Canada Economic Geology 27, page 54).

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PAGE: 1053
REPORT: RGEN0100

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GSC EC GEOL *27, pp. 53,54
GSC MAP 1386A
GSC OF 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of
British Columbia, Vol. 1: Vancouver Island, p. 172

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/30

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 069**

NATIONAL MINERAL INVENTORY:

NAME(S): **TRIANGLE**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 39 N
LONGITUDE: 125 16 16 W
ELEVATION: 90 Metres

NORTHING: 5562688
EASTING: 337900

LOCATION ACCURACY: Within 5 KM

COMMENTS: No precise location given. Probably located in the Geiler (092K 010), White Swan (092K 059) and Lucky Jim (092K 015) area (Geological Survey of Canada Memoir 23, page 134). Possibly on one of the crown grants in the area.

COMMODITIES: Copper Lead

MINERALS

SIGNIFICANT: Chalcopyrite Galena Arsenopyrite Pyrite
ASSOCIATED: Tourmaline
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Mesozoic-Cenozoic

GROUP

Vancouver
Vancouver

FORMATION

Quatsino
Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone

HOSTROCK COMMENTS: Volcanics and intrusive rocks were not reported at occurrence, but are commonly related to skarn deposits in the area.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanics of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Coast Plutonic Complex.

On the Triangle showing a few grains of chalcopyrite, galena, arsenopyrite and pyrite are scattered along a narrow zone of shearing where it traverses crystalline limestone. The presence of small black needle-like crystals of tourmaline arranged in sheaf-like aggregates were observed along joint planes in the limestone.

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GSC MAP 120A; 1386A
GSC MEM *23, p. 134
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1989/05/09
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 070**

NATIONAL MINERAL INVENTORY:

NAME(S): **WR, WHITE RIVER**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K04W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 51 N
LONGITUDE: 125 59 43 W
ELEVATION: 168 Metres

NORTHING: 5561179
EASTING: 286086

LOCATION ACCURACY: Within 500M

COMMENTS: Location of trench 2, Assessment Report 2498.

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Chalcopyrite Bornite

ASSOCIATED: Pyrite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Lower Jurassic	Bonanza	Undefined Formation	

LITHOLOGY: Basalt
Amygdaloidal Basalt
Sediment/Sedimentary
Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1970

SAMPLE TYPE: Chip

COMMODITY

GRADE

Copper

1.2500 Per cent

COMMENTS: Rock chip sample.

REFERENCE: Assessment Report 2498.

CAPSULE GEOLOGY

The WR showing is located on the west bank of the White River approximately 20 kilometres south of its confluence with the Salmon River and the community of Sayward. The White River (WR) is underlain by massive and amygdaloidal basalts of the Upper Triassic Karmutsen Formation and fine-grained Lower Jurassic Bonanza Group sediments. The contact between the two units is a fault striking southwest under the White River. Some limestone is noted in the Karmutsen Formation basalts.

Pyrite, chalcopyrite and bornite are found in the basalts along fracture systems branching from the fault. A rock chip sample taken from trench 2 in 1970 assayed 1.25 per cent copper with trace gold and silver (Assessment Report 2498). Shearing was evident in the trench.

BIBLIOGRAPHY

EMPR ASS RPT 2498
EMPR GEM 1969-210, 1970-278
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/19

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 071**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **POMEROY 3,4**, INGERSOLL, COPPER MOUNTAIN,
COPPER HILLS, EVELYN 2, POMEROY 3,
POMEROY 4, HERCULES, COPPER CLIFF

STATUS: Past Producer
REGIONS: British Columbia
NTS MAP: 092K03W
BC MAP:
LATITUDE: 50 07 04 N
LONGITUDE: 125 16 20 W
ELEVATION: 113 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Open pit, 3.25 kilometres south of Morte Lake, 4 kilometres west-northwest from the village of Heriot Bay (Assessment Report 5076).

Open Pit

MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)
NORTHING: 5554198
EASTING: 337562

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite Copper Chalcopyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Chlorite Malachite
ALTERATION TYPE: Chloritic Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratabound Disseminated Vein
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu
DIMENSION: 213 x 45 x 2 Metres
COMMENTS: Pomeroy 3 zone.

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: POMEROY 4 REPORT ON: Y
CATEGORY: Indicated YEAR: 1973
QUANTITY: 9524 Tonnes
COMMODITY GRADE
Copper 2.6900 Per cent
COMMENTS: Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber.
REFERENCE: SMF May 7, 1973-Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973.

ORE ZONE: POMEROY 3 REPORT ON: Y
CATEGORY: Indicated YEAR: 1973
QUANTITY: 176431 Tonnes
COMMODITY GRADE
Copper 0.6700 Per cent
COMMENTS: Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber.
REFERENCE: SMF May 7, 1973-Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973.

CAPSULE GEOLOGY

The Pomeroy 3,4 occurrence is located 3.25 kilometres south of Morte Lake and 4 kilometres west-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator (092k 052) claim in the Pomeroy area were tested for radium

CAPSULE GEOLOGY

in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy consists of two mineralized zones 61 metres apart separated by a north-trending fault. The Pomeroy 3 is a flat lying, sporadically mineralized zone in the upper part of a massive, fine grained chloritized andesite flow which is overlain by a coarser grained and highly amygdaloidal andesite flow. The flow rock is strongly sheared and fractured in an east direction with dips steeply north. The fractures carry chalcocite stringers and blebs.

The Pomeroy 4 is west of the Pomeroy 3 and is comprised of chalcocite mineralization controlled by strong fractures in amygdaloidal andesite flows. The fracturing trends in two directions. Malachite is prevalent as an oxidation product. The north-trending fault separating the two zones contains high grade chalcocite mineralization. Three hundred and twenty-six tonnes of 2.5 per cent copper were shipped from a pit located between the Pomeroy 3 and 4.

Mineralization consists of chalcocite and minor native copper and chalcopyrite. A vein of quartz-calcite up to 38 centimetres wide and mineralized with chalcocite was previously explored.

The Pomeroy 3 zone extends 213 metres in a north-south direction, 45 metres east-west and ranges from 1.5 to 3 metres true width.

Indicated reserves at the Pomeroy 4 are 9524 tonnes grading 2.6 per cent copper. Indicated reserves at the Pomeroy 3 are 176,431 tonnes grading 0.67 per cent copper. The resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973).

Between 1915 and 1919, 2808 tonnes yielded 25,224 grams of silver and 72,572 kilograms of copper.

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*1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282;
1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-100,101
EMPR ASS RPT 852, *5076, 22264
EMPR BC METAL MM00125
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 3-201
EMPR PF (*Sheppard, E.P. (1973): Geological Report on the
Pomeroy Group and Contact Group, includes drill hole plans; McLeod,
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EMR MIN BULL MR 223 (1989) B.C. 168
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
EMR MP RESFILE (Pomeroy Resources)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168
Statement of Material Facts, VSE, Prince Stewart Mines Ltd., May 7, 1973

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: 092K 071

CAPSULE GEOLOGY

area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy 1 is comprised of disseminated chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. In 1968, approximately 5443 tonnes of ore were mined and bacterially leached to produce 559 kilograms of metallic copper.

Indicated reserves at Pomeroy 1 are 11,157 tonnes grading 3.55 per cent copper. Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd.; F.G. Cooke, April 12, 1973).

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346,K347; *1918-K270-K274; 1919-N217, N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, *22264
EMPR BC METAL MM00125, MM00165
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Production; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MIN BULL MR 223 (1989) B.C. 168
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168
Statement of Material Facts, VSE, Prince Stewart Mines Ltd., May 7, 1973

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/31

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 073**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **BEAVER 1**, BIT 2, BARON

MINING DIVISION: Nanaimo

STATUS: Developed Prospect

REGIONS: British Columbia

NTS MAP: 092K03W

BC MAP:

LATITUDE: 50 06 47 N

LONGITUDE: 125 15 52 W

ELEVATION: 106 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Trenches, 3.75 kilometres west-northwest from the village of Heriot Bay, 4 kilometres south of Morte Lake (Assessment Report 5076).

UTM ZONE: 10 (NAD 83)

NORTHING: 5553656

EASTING: 338102

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite

COMMENTS: Mineralization is hosted in fractures.

ALTERATION: Chlorite

ALTERATION TYPE: Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated

CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic

TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: BEAVER 1

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1973

QUANTITY: 16327 Tonnes

COMMODITY

GRADE

Copper

1.7300

Per cent

REFERENCE: NMI 092K3 Cu3, Prince Stewart Mines Ltd., Statement of Material Facts.

CAPSULE GEOLOGY

The Beaver 1 occurrence is located 3.75 kilometres west-northwest from the village of Heriot Bay on Quadra Island and 4 kilometres south of Morte Lake.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence. Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a

CAPSULE GEOLOGY

photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Beaver 1 is comprised of disseminated chalcocite mineralization within flat lying, strongly fractured chloritic amygdaloidal andesite flows.

Indicated reserves at Beaver 1 are 16,327 tonnes grading 1.73 per cent copper (National Mineral Inventory 092K3 Cu3, Prince Stewart Mines Ltd., Statement of Material Facts, by New Ainsworth Base Metals Limited).

In 1964, a shipment of 237 tonnes of ore produced 2550 grams of silver and 5038 kilograms of copper. The exact location is unclear.

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR BC METAL MM00184 (assigned to Senator, 092K 052, probably in error)
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 4-119
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines Information; Holland, S.S. (1973): Limited Production Permit - Quadra Mining Co. Ltd. letter; 092K 012; 092K 101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 074**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **INGERSOLL NO. 2, BIT 1**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 41 N
LONGITUDE: 125 15 58 W
ELEVATION: 101 Metres

NORTHING: 5553475
EASTING: 337977

LOCATION ACCURACY: Within 500M

COMMENTS: Stripped area, 4 kilometres west-northwest from the village of Heriot Bay, 4.25 kilometres south from Morte Lake (Assessment Report 5076).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite Bornite

ASSOCIATED: Epidote Quartz

COMMENTS: Mineralization is hosted along fracture plane surfaces and in shear zones.

ALTERATION: Chlorite

ALTERATION TYPE: Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated

CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic

TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1918

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

13.7100

Grams per tonne

Copper

3.2000

Per cent

COMMENTS: Grab sample from stripped area.

REFERENCE: Minister of Mines Annual Report 1918, page K273.

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

CAPSULE GEOLOGY

The Ingersoll No. 2 is comprised of chalcocite and bornite mineralization along fracture plane surfaces within shear zones in chloritic amygdaloidal andesite flows. Occasional epidote and quartz stringers are evident.

The showing was opened up by stripping in 1969.

BIBLIOGRAPHY

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218;
1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-
A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the
Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of
Examination and Estimates of Production on the Quadra Mining
Company Limited Property; Bacon, W.R. (1953): Preliminary Report
for Department of Mines' Information; 092K012; 092K101-Sheppard,
E.P. (1972): Geological Report on the Contact Claims; 092K
General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/03

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 075**

NATIONAL MINERAL INVENTORY:

NAME(S): **MACLEAN MOLY**, ARROW (L.1381), BULLSEYE (L.1380)

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K02W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 19 N
LONGITUDE: 124 59 51 W
ELEVATION: 20 Metres

NORTHING: 5557805
EASTING: 357312

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the southern shore of Quartz Bay, Cortes Island (Property File).

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Molybdenite
COMMENTS: Assumed to be molybdenite.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Granodiorite
Quartz Diorite
Granite
Quartz Monzonite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area is underlain by Juro-Cretaceous Coast Plutonic Complex quartz diorite. The MacLean Moly is reported to contain molybdenite mineralization that has been explored by a series of trenches.

BIBLIOGRAPHY

EMPR PF (*Surface plans)
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 076**

NATIONAL MINERAL INVENTORY:

NAME(S): **LOIS CREEK LOWER**, RED MTN., VERGO,
 VIRGO, JUPITER

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K01E
 BC MAP:
 LATITUDE: 50 00 00 N
 LONGITUDE: 124 05 36 W
 ELEVATION: 838 Metres
 LOCATION ACCURACY: Within 1 KM
 COMMENTS: Location from Figure 5, Assessment Report 11641.

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5539203
 EASTING: 421645

COMMODITIES: Copper Lead Zinc Silver Gold

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite Pyrrhotite Galena Arsenopyrite
 ASSOCIATED: Pyrite
 ALTERATION: Chlorite Graphite Limonite
 ALTERATION TYPE: Chloritic
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform
 CLASSIFICATION: Replacement
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
 DIMENSION: STRIKE/DIP: 345/90E TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Graphitic Argillite
 Chlorite Tuff
 Andesite Flow
 Andesite Sill
 Granodiorite
 Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
 TERRANE: Gambier
 METAMORPHIC TYPE: Regional

Plutonic Rocks PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: ADIT REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1983
 SAMPLE TYPE: Chip

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	86.1000	Grams per tonne
Gold	1.3700	Grams per tonne
Copper	0.2100	Per cent
Lead	0.3900	Per cent
Zinc	9.4600	Per cent

COMMENTS: Average of chip samples over 2.5 metres.
 REFERENCE: Assessment Report 11641.

CAPSULE GEOLOGY

The Lois Creek Lower Adit is located at the headwaters of Lois Creek at an elevation of 838 metres. The adit and surrounding trenches lie within the Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists of diorites and granodiorites enclosing a northwest trending belt of Lower Cretaceous Gambier volcanic rocks and sediments. The bedding strikes 345 degrees parallel to the borders of the belt and dips vertically to steeply eastward.

Mineralization consists of pods and lenses of massive sphalerite, chalcopyrite, pyrrhotite and minor galena and arsenopyrite developed within steeply dipping shears which trend 330 to 005 degrees and 060 to 100 degrees. Shearing is believed to be continuous between the upper (north) and lower (south) adit area, a distance of over 700

CAPSULE GEOLOGY

metres. The shearing is also believed to cut graphitic argillites, chlorite-rich tuffs and andesite flows and/or sills. Overall, the massive shear-controlled mineralized pods appear to be spatially related to the argillite-chlorite tuff contact although some mineralization occurs within both of these units.

From a 2.5 metre wide area in the adit, 5 chip samples assayed an average of 0.21 per cent copper, 0.39 per cent lead, 9.46 per cent zinc, 86.1 grams per tonne silver and 1.37 grams per tonne gold (Assessment Report 11641).

BIBLIOGRAPHY

EMPR AR 1916-368; 1920-352; 1923-268; 1927-365; 1928-388; 1931-173;
1950-172; 1965-224
EMPR ASS RPT 2621, 3329, 8630, 9315, *11641
EMPR BULL *39
EMPR EXPL 1980-177; 1981-18
EMPR GEM 1970-230; 1971-253
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/11/18

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 077**

NATIONAL MINERAL INVENTORY:

NAME(S): **LOIS CREEK UPPER**, RED MOUNTAIN, VERGO,
 VIRGO, JUPITER, ROX,
 MT. DIADEM

STATUS: Prospect	Underground	MINING DIVISION: Vancouver
REGIONS: British Columbia		
NTS MAP: 092K01E		UTM ZONE: 10 (NAD 83)
BC MAP:		
LATITUDE: 50 00 23 N		NORTHING: 5539918
LONGITUDE: 124 05 52 W		EASTING: 421337
ELEVATION: 1164 Metres		
LOCATION ACCURACY: Within 500M		
COMMENTS: Location from Assessment Report 11641, Figure 5.		

COMMODITIES: Silver Lead Zinc Copper

MINERALS

SIGNIFICANT: Pyrrhotite	Chalcopyrite	Sphalerite	Galena	Tetrahedrite
ASSOCIATED: Arsenopyrite				
ALTERATION: Quartz				
ALTERATION TYPE: Propylitic	Chlorite	Epidote	Garnet	
MINERALIZATION AGE: Unknown	Silicific'n			

DEPOSIT

CHARACTER: Massive	Podiform	Stratabound	Breccia
CLASSIFICATION: Hydrothermal	Replacement	Volcanogenic	
TYPE: I05 Polymetallic veins	Ag-Pb-Zn±Au	G06	Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 120 x 30	Metres	STRIKE/DIP: 345/30E	TREND/PLUNGE:
COMMENTS: Three en echelon, polymetallic, stratabound stringers are up to 30 metres wide and have an aggregate distance of 120 metres along a strike 345 degrees and dipping 30 degrees east.			

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic	Bowen Island	Undefined Formation	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Argillite
 Siliceous Argillite
 Chloritic Tuff
 Andesitic Breccia
 Tuffaceous Sandstone
 Diorite
 Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline	Plutonic Rocks	PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Gambier	RELATIONSHIP:	GRADE: Greenschist
METAMORPHIC TYPE: Regional		

INVENTORY

ORE ZONE: ADIT	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1984
SAMPLE TYPE: Drill Core	
COMMODITY	GRADE
Silver	135.0000 Grams per tonne
Copper	0.7900 Per cent
Lead	2.7400 Per cent
Zinc	1.6100 Per cent
COMMENTS: Drill core assay over 12 metres.	
REFERENCE: Assessment Report 13814.	

CAPSULE GEOLOGY

The Lois Creek Upper is located at the headwaters of Lois Creek at an elevation of 1164 metres, northwest of Mount Diadem. The Mount Diadem area has received intermittent exploration since the 1920s. In 1927, Brittan R. Mining Co. drove two small adits 1.5 kilometres northwest and 2.0 kilometres north-northwest of Mount Diadem, respectively. Between 1947 and 1950, Inco Canada Ltd. and Bralorne Mines excavated several opencuts and a short adit in the area of the headwaters of No Man's Creek. In 1954, Copper Ridge

CAPSULE GEOLOGY

Silver Zinc Mines Ltd. held 19 claims in the area. In 1965, Vanco Explorations Ltd. held 17 claims northwest of Mount Diadem, called the Linda Group. Citation Explorations Ltd. held 73 claims and optioned the Linda Group in 1967. Tiger Silver Mines optioned the Linda Group in 1970, and carried out geochemical and geophysical surveys. In 1971, Brittan R. syndicate optioned the 23 claims and performed geophysical and geochemical surveys. The claims lapsed and were restaked by Fury Explorations Ltd. (Diadem claim) and R. Schmidt (Fox claim). In 1982, Anaconda Canada Explorations Ltd. performed a regional stream sediment survey in the Mount Diadem area. In the following year, an exploration program was carried out on the optioned Diadem and Fury, and other staked claims surrounding Mount Diadem. White Channel Resources Inc. staked the Rox 1 to 5 claims and conducted property exploration in 1991 and 1992. In 1994, Noranda Exploration Company Limited optioned and explored the Rox claims which included the Lois Creek Trench showing for volcanogenic massive sulphide-type mineralization.

The prospect lies within the Juro-Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists of diorites and granodiorites enclosing a series of northwest trending pendants. In the Mount Diadem area, feldspar-rich diorite and quartz diorite dominate. These pendants, occurring along Howe Sound and Jervis Inlet, are interpreted to be part of the Lower to Middle Jurassic Bowen Island Group, coeval with volcanic rock of the Bonanza Group and the Harrison Lake Formation.

Mount Diadem forms part of a ridge consisting of Bowen Island Group sediments and volcanics that form a 15 kilometre long by 1 to 2 kilometre wide roof pendant. Lithologies along the eastern portion of the pendant consist of dark green, chlorite-rich, massive volcanic flows and tuffs intercalated with grey to black cherty tuff and foliated, pyritic argillaceous siltstone. The west portion of the pendant contains well bedded clastic sediments, minor carbonate with intercalations of intermediate to mafic tuffs, flows and sills. In all, six stratigraphic units have been defined and in ascending order are: 1) tuffaceous sandstone, minor argillite and lapilli tuff, 2) chlorite-rich tuff with interbedded tuffaceous sandstone, minor argillite, 3) thin-bedded argillite, minor carbonate and lapilli tuff interbeds, 4) banded argillite, sandstone, chert, minor lapilli tuff, 5) siliceous argillite, siltstone, tuff, chert and 6) andesitic breccia.

Volcanics and sediments have a near-vertical bedding and cleavage that form a series of tight upright folds that plunge moderately to the north.

Sulphide mineralization observed in drill core consists of stringers, veinlets, blebs, pods and minor disseminations of pyrrhotite, chalcopyrite, sphalerite, galena, minor tetrahedrite and trace arsenopyrite within brecciated, quartz-chlorite-epidote-plus or minus garnet altered portions of a predominantly argillite unit. Mineralization is found at or near contacts with intercalated chloritic flows and sills. Four main mineral assemblages are recognized:

- a) pyrrhotite-sphalerite;
- b) pyrrhotite-sphalerite-galena;
- c) pyrrhotite-chalcopyrite, plus or minus tetrahedrite; and
- d) pyrrhotite-sphalerite-chalcopyrite-galena.

Three en echelon, stratabound stringer sulphide zones up to 30 metres wide and aggregating 120 metres in length occur in the vicinity of the upper adit. The sulphide zones consist of high grade polymetallic pods enveloped by low grade, silver-poor, zinc and/or copper mineralization.

The best drill core intercepts yielded 135 grams per tonne silver, 2.74 per cent lead, 1.61 per cent zinc and 0.79 per cent copper over 12 metres including 359.5 grams per tonne silver, 7.9 per cent lead, 2.5 per cent zinc and 2.1 per cent copper over 4 metres (Assessment Report 13814).

Four rock samples were taken from the vicinity of the upper adit in 1994. Sample 428-H yielded 1.62 per cent copper, 30.5 per cent zinc, 11.20 per cent lead, 0.50 gram per tonne silver and 0.31 gram per tonne gold over 0.4 metre (Assessment Report 23319). Sample 428-G yielded 0.80 per cent zinc, 10 grams per tonne silver and trace lead and copper over 1.5 metres.

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- EMPR AR 1916-368; 1920-352; 1923-268; 1927-365; 1928-388; 1931-173;
1950-172; 1965-224
EMPR ASS RPT 2621, 3329, 8630, *11641, *13814, 18207, 21459, 22397,
*23319
EMPR BULL 39
EMPR EXPL 1980-177; 1981-18

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1070
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR GEM 1970-230; 1971-253
EMPR OF 1999-2
EMPR PF (Stirrup Creek Gold Limited Website (Nov. 1999): Rox Claims,
1 p.)
GSC MAP 1386A
GSC OF 480
WWW <http://www.verdstonegroup.com/stirrup/>

DATE CODED: 1988/11/21
DATE REVISED: 1997/05/30

CODED BY: SED
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 078**

NATIONAL MINERAL INVENTORY:

NAME(S): **ELLEN, LEM, DIT,**
SALMON RIVER

MINING DIVISION: Nanaimo

STATUS: Showing
 REGIONS: British Columbia, Vancouver Island
 NTS MAP: 092K04W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 14 29 N
 LONGITUDE: 125 49 05 W
 ELEVATION: 53 Metres

NORTHING: 5569270
 EASTING: 299066

LOCATION ACCURACY: Within 500M
 COMMENTS: A narrow stringer on Ellen 15 (Property File, map in Prospectus, 1970).

COMMODITIES: Copper Silver Gold Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Chalcocite
 ASSOCIATED: Epidote Quartz Calcite
 ALTERATION: Epidote
 ALTERATION TYPE: Epidote
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
 CLASSIFICATION: Epigenetic Replacement
 TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Basalt
 Amygdaloidal Basalt
 Basalt Flow
 Andesite Flow
 Breccia
 Tuff

GEOLOGICAL SETTING

TECTONIC BELT: Insular
 TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1970
SAMPLE TYPE: Grab	
<u>COMMODITY</u>	<u>GRADE</u>
Silver	17.1400 Grams per tonne
Gold	0.3428 Grams per tonne
Copper	9.4400 Per cent

COMMENTS: Selected samples.
 REFERENCE: Property File (Jetex Resources Ltd., 1970, Prospectus).

CAPSULE GEOLOGY

The Ellen showing is located in a small creek gully approximately 1 kilometre southwest of Salmon River on a private logging road off of Provincial Highway 19. The area is underlain by basalt and andesite flows, breccia and tuff of the Upper Triassic Karmutsen Formation. The basalt is primarily dark green, fine-grained and dense but certain areas are amygdaloidal with abundant amygdules of quartz, epidote and calcite.

Disseminated chalcopyrite and bornite occur in amygdaloidal basalt. A composite sample from disseminated areas along the logging road assayed 1.06 per cent copper, 13.712 grams per tonne silver, 0.1714 grams per tonne gold and trace molybdenum. A narrow (5 to 8 centimetre) stringer, well mineralized with chalcopyrite and chalcocite assayed 9.44 per cent copper, 17.14 grams per tonne silver, 0.3428 grams per tonne gold and trace molybdenum (Property File, Prospectus, 1970).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1072
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR GEM *1970-279
EMPR PF (*Jetex Resources Ltd., (1970): Prospectus; (1971):
Prospectus)
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/19

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1073
REPORT: RGEN0100

MINFILE NUMBER: **092K 079**

NATIONAL MINERAL INVENTORY:

NAME(S): **TIMOTHY**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 29 N
LONGITUDE: 125 06 58 W
ELEVATION: 76 Metres

NORTHING: 5560201
EASTING: 348901

LOCATION ACCURACY: Within 5 KM

COMMENTS: Located somewhere on the west side of Read Island near the Solyman (092K034), Property File (Letter from G. Milbourne to P. Eastwood, 1971).

COMMODITIES: Mercury

MINERALS

SIGNIFICANT: Metacinnabar
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Jurassic-Cretaceous

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area is underlain by Juro-Cretaceous Coast Plutonic Complex quartz diorite. The Timothy showing is documented as containing metacinnabarite which is synonymous with metacinnabar, a black isometric ore mineral of mercury.

BIBLIOGRAPHY

EMPR ASS PRT 3488
EMPR PF (*Letter from G. Milbourne to P. Eastwood, 1971)
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 079**

MINFILE NUMBER: **092K 080**

NATIONAL MINERAL INVENTORY:

NAME(S): **B46**, LOCALITY C, MOUNT HAYES

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 20 36 N
LONGITUDE: 124 54 26 W
ELEVATION: 1155 Metres

NORTHING: 5578544
EASTING: 364295

LOCATION ACCURACY: Within 500M

COMMENTS: Locality C on map in Assessment Report 3133.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
ASSOCIATED: Pyrite
ALTERATION: Pyrite Quartz Chlorite
ALTERATION TYPE: Silicific'n Pyrite Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Diorite
Quartz Diorite

HOSTROCK COMMENTS: Age date 10 kilometres west: 97 to 99 million years (Geological Survey of Canada Open File 480).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1971

COMMODITY

GRADE

Copper

0.2200

Per cent

COMMENTS: Chip sample over 1.22 metres.

REFERENCE: Assessment Report 3133.

CAPSULE GEOLOGY

The B46 showing is located on the southern slopes of Mount Hayes located between Ramsay Arm and Toba Inlet. The area is underlain by intrusives of the Jurassic to Cretaceous Coast Plutonic Complex. Age dates from 10 kilometres west on Bute Inlet give an age date of 97 to 99 million years by potassium-argon from biotite and hornblende (Geological Survey of Canada Open File 480).

Chalcopyrite is noted in outcrop at Locality C on claim B46. More specifically, chalcopyrite is found in a fracture zone in slightly silicified and pyritized diorite. Widespread areas of intense silicification, pyritization and chloritization of the diorite are evident.

Many sites containing chalcopyrite in float have been identified, but only at one location in outcrop. A 1.22 metre chip sample from the outcrop assayed 0.22 per cent copper (Assessment Report 3133).

BIBLIOGRAPHY

EMPR ASS RPT *3133
EMPR GEM 1971-315
GSC MAP 1386A
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/27

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 080**

MINFILE NUMBER: **092K 081**

NATIONAL MINERAL INVENTORY:

NAME(S): **ATTWOOD BAY**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 19 32 N
LONGITUDE: 124 38 54 W
ELEVATION: 540 Metres

NORTHING: 5576128
EASTING: 382671

LOCATION ACCURACY: Within 500M

COMMENTS: Location of sample Att82T16 on map in Assessment Report 10806.

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz
ALTERATION: Kaolinite Quartz
ALTERATION TYPE: Argillic Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic Porphyry
DIMENSION: STRIKE/DIP: 120/90N TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Hornblende Quartz Monzonite
Andesitic Volcanic Rock
Diorite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Contact
PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1982
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 12.0000 Grams per tonne
Copper 0.9300 Per cent
COMMENTS: A 2 to 3 kilogram chip sample from the quartz vein.
REFERENCE: Assessment Report 10806.

CAPSULE GEOLOGY

The area around Attwood Bay is underlain by Jurassic to Cretaceous Coast Plutonic Complex quartz monzonite and hornblende quartz monzonite. Contained within the monzonite is a wedge of metamorphosed Lower Cretaceous Gambier Group mafic volcanic rocks trending 120 degrees.

The monzonite is massive, medium to coarse-grained, equigranular and is specifically a hornblende quartz monzonite. The volcanic rocks are dark grey to green, fine-grained and of mafic (andesitic) composition. Minor tuff, porphyry and cherty bands are evident. The volcanic rocks show both a faulted and intrusive contact with the hornblende quartz monzonite. Kaolinization, mylonitization and silicification are evident in the rock surrounding the faults. In many places the monzonite is cut by narrow (less than 5 metres thick) multi-directional fine-grained green to grey diorite dykes.

A diorite dyke-monzonite contact contains a small quartz vein with pyrite and chalcopyrite. A 2 to 3 kilogram chip sample from the quartz vein assayed 0.93 per cent copper, 12.0 grams per tonne silver, 0.080 grams per tonne gold, 0.0015 per cent lead, 0.0147 per cent zinc, 0.0003 per cent molybdenum and less than 0.0002 per cent arsenic (Assessment Report 10806).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1076
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR ASS RPT *10806
GSC MAP 1386A
GSC OF 480

DATE CODED: 1989/02/06
DATE REVISED: / /

CODED BY: SED
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 082**

NATIONAL MINERAL INVENTORY: 092K1 F16,Cu1

NAME(S): **LOIS CREEK TRENCH**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 00 46 N
LONGITUDE: 124 06 03 W
ELEVATION: 1433 Metres

NORTHING: 5540632
EASTING: 421128

LOCATION ACCURACY: Within 500M

COMMENTS: Located above the headwaters of Lois Creek, 1100 metres south of Skwim Lake (Assessment Report 11641).

COMMODITIES: Zinc Lead Silver Gold Copper

MINERALS

SIGNIFICANT: Galena Sphalerite Chalcopyrite

ASSOCIATED: Pyrite Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Podiform
CLASSIFICATION: Hydrothermal Replacement Volcanogenic
TYPE: 105 Polymetallic veins Ag-Pb-Zn±Au G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 30 Metres STRIKE/DIP: 345/90E TREND/PLUNGE:

COMMENTS: Stringer sulphides occur over at least 30 metres, from the Lois Creek Upper (092K 077) to the Lois Creek Trench showing. The zone of fracturing strikes 345 degrees and dips vertically.

HOST ROCK

DOMINANT HOSTROCK: Metavolcanic

STRATIGRAPHIC AGE

Jurassic
Jurassic-Cretaceous

GROUP

Bowen Island

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Argillite
Siliceous Argillite
Chloritic Tuff
Andesitic Breccia
Tuffaceous Sandstone
Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Gambier

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

Plutonic Rocks

RELATIONSHIP:

GRADE: Greenschist

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1994

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver	64.0000	Grams per tonne
Gold	0.4400	Grams per tonne
Lead	1.7000	Per cent
Zinc	3.1000	Per cent

COMMENTS: Chip sample 427-R over 4.0 metres.

REFERENCE: Assessment Report 23319.

CAPSULE GEOLOGY

The Lois Creek Trench is located above the headwaters of Lois Creek 1100 metres south of Skwim Lake, northeast of Mount Diadem at an elevation of 1433 metres.

The Mount Diadem area has received intermittent exploration since the 1920s. In 1927, Brittan R. Mining Co. drove two small adits 1.5 kilometres northwest and 2.0 kilometres north-northwest of Mount Diadem, respectively. Between 1947 and 1950, Inco Canada Ltd. and Bralorne Mines excavated several opencuts and a short adit in the area of the headwaters of No Man's Creek. In 1954, Copper Ridge Silver Zinc Mines Ltd. held 19 claims in the area. In 1965, Vanco Explorations Ltd. held 17 claims northwest of Mount Diadem, called the Linda Group. Citation Explorations Ltd. held 73 claims and

CAPSULE GEOLOGY

optioned the Linda Group in 1967. Tiger Silver Mines optioned the Linda Group in 1970, and carried out geochemical and geophysical surveys. In 1971, Brittan R. syndicate optioned the 23 claims and performed geophysical and geochemical surveys. The claims lapsed and were restaked by Fury Explorations Ltd. (Diadem claim) and R. Schmidt (Fox claim). In 1982, Anaconda Canada Explorations Ltd. performed a regional stream sediment survey in the Mount Diadem area. In the following year, an exploration program was carried out on the optioned Diadem and Fury, and other staked claims surrounding Mount Diadem. White Channel Resources Inc. staked the Rox 1 to 5 claims and conducted property exploration in 1991 and 1992. In 1994, Noranda Exploration Company Limited optioned and explored the Rox claims which included the Lois Creek Trench showing for volcanogenic massive sulphide-type mineralization.

The prospect lies within the Juro-Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists of diorites and granodiorites enclosing a series of northwest trending pendants. In the Mount Diadem area, feldspar-rich diorite and quartz diorite dominate. These pendants, occurring along Howe Sound and Jervis Inlet, are interpreted to be part of the Lower to Middle Jurassic Bowen Island Group, coeval with volcanic rock of the Bonanza Group and the Harrison Lake Formation.

Mount Diadem forms part of a ridge consisting of Bowen Island Group sediments and volcanics that form a 15 kilometre long by 1 to 2 kilometre wide roof pendant. Lithologies along the eastern portion of the pendant consist of dark green, chlorite-rich, massive volcanic flows and tuffs intercalated with grey to black cherty tuff and foliated, pyritic argillaceous siltstone. The west portion of the pendant contains well bedded clastic sediments, minor carbonate with intercalations of intermediate to mafic tuffs, flows and sills. In all, six stratigraphic units have been defined and in ascending order are: 1) tuffaceous sandstone, minor argillite and lapilli tuff, 2) chlorite-rich tuff with interbedded tuffaceous sandstone, minor argillite, 3) thin-bedded argillite, minor carbonate and lapilli tuff interbeds, 4) banded argillite, sandstone, chert, minor lapilli tuff, 5) siliceous argillite, siltstone, tuff, chert and 6) andesitic breccia.

Volcanics and sediments have a near-vertical bedding and cleavage that form a series of tight upright folds that plunge moderately to the north.

In a zone of strong cross fracturing, mineralization occurs irregularly in seams of 10 to 30 centimetres in width. Drill core from the Lois Creek Upper adit and the Lois Creek Trench upper trenches exhibit stringer sulphides over intervals as much as 30 metres. Mineralization at the Lois Creek Trench showing consists of disseminated pyrite, galena with minor chalcopyrite and sphalerite.

Galena with minor sphalerite and chalcopyrite is exposed in two small trenches. An average of 3 chip samples over 3 metres within the larger of the two trenches assayed an average of 0.863 gram per tonne gold, greater than 134 grams per tonne silver, greater than 1 per cent lead, greater than 1 per cent zinc and minor copper (Assessment Report 11641). Another sample from just south of this trench assayed 2.25 grams per tonne gold, 560 grams per tonne silver, greater than 1 per cent lead, greater than 1 per cent zinc and 0.14 per cent copper over 8 centimetres (Assessment Report 11641).

Three chip samples were taken across the upper two trenches during property exploration of the Rox 1 to 5 claims in 1994. Sample 427-P yielded 1.34 per cent zinc, 0.82 per cent lead, 23.2 grams per tonne silver and 0.31 gram per tonne gold over 1.0 metre (Assessment Report 23319). Sample 427-Q yielded 0.14 per cent zinc, 0.28 per cent lead, 11.2 grams per tonne silver and 0.04 gram per tonne gold over 1.0 metre (Assessment Report 23319). Sample 427-R yielded 3.10 per cent zinc, 1.70 per cent lead, 64.0 grams per tonne silver and 0.44 gram per tonne gold over 4.0 metres (Assessment Report 23319).

BIBLIOGRAPHY

EMPR AR 1916-368; 1920-352; 1923-268; 1927-365; 1928-388; 1929-364;
1931-173; 1950-172; 1965-224
EMPR ASS RPT 2621, *3329, *11641, 13814, 18207, 21459, 22397, *23319
EMPR BULL 39
EMPR GEM 1970-230; 1971-253
EMPR OF 1999-2
GSC MAP 1386A
GSC OF 480

MINFILE NUMBER: **092K 083**

NATIONAL MINERAL INVENTORY:

NAME(S): **ROX**, NO MAN'S CREEK, SKWIM LAKE,
LINDA, DIADEM, FOX,
MT. DIADEM

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K01E
BC MAP:
LATITUDE: 50 00 50 N
LONGITUDE: 124 05 19 W
ELEVATION: 1097 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Location from Figure 6, Assessment Report 11641. See also Mt. Diadem (092K 084).

Underground
MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5540743
EASTING: 422006

COMMODITIES: Gold Zinc Copper Silver Cadmium
Lead

MINERALS

SIGNIFICANT: Sphalerite Chalcopyrite Arsenopyrite Gold Greenockite
Galena
COMMENTS: Galena is minor and visible native gold specks are rare.
ASSOCIATED: Quartz Pyrite Pyrrhotite
ALTERATION: Silica Clay
ALTERATION TYPE: Silicific'n Argillic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Podiform Massive
CLASSIFICATION: Hydrothermal Replacement Volcanogenic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn
DIMENSION: 244 Metres STRIKE/DIP: 040/90E TREND/PLUNGE:
COMMENTS: The shear-quartz vein has been traced for 244 metres and the vein has an average width of 20 centimetres. The vein strikes 040 degrees and dips steeply.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic Bowen Island Undefined Formation
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Tuffaceous Sandstone
Chloritic Tuff
Argillite
Siliceous Argillite
Andesitic Breccia
Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE: DRILLHOLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1984
SAMPLE TYPE: Drill Core
COMMODITY GRADE
Silver 135.0000 Grams per tonne
Gold 3.7400 Grams per tonne
Copper 0.7900 Per cent
Zinc 1.6100 Per cent
Lead 2.7400 Per cent
COMMENTS: Anaconda Canada Exploration Ltd. drill interval over 12.0 metres.
REFERENCE: GCNL #27 (February 9), 1998.

CAPSULE GEOLOGY

The Rox prospect is located at the headwaters of Lois River near Mount Diadem, 38 kilometres northeast of Powell River. The Mount Diadem area has received intermittent exploration since the 1920s. In 1927, Brittan R. Mining Co. drove two small

CAPSULE GEOLOGY

adits 1.5 kilometres northwest and 2.0 kilometres north-northwest of Mount Diadem, respectively. Between 1947 and 1950, Inco Canada Ltd. and Bralorne Mines excavated several opencuts and a short adit in the area of the headwaters of No Man's Creek. In 1954, Copper Ridge Silver Zinc Mines Ltd. held 19 claims in the area. In 1965, Vanco Explorations Ltd. held 17 claims northwest of Mount Diadem, called the Linda Group. Citation Explorations Ltd. held 73 claims and optioned the Linda Group in 1967. Tiger Silver Mines optioned the Linda Group in 1970, and carried out geochemical and geophysical surveys. In 1971, Brittan R. syndicate optioned the 23 claims and performed geophysical and geochemical surveys. The claims lapsed and were restaked by Fury Explorations Ltd. (Diadem claim) and R. Schmidt (Fox claim). In 1982, Anaconda Canada Explorations Ltd. performed a regional stream sediment survey in the Mount Diadem area. In the following year, an exploration program was carried out on the optioned Diadem and Fury, and other staked claims surrounding Mount Diadem. White Channel Resources Inc. staked the Rox 1 to 5 claims and conducted property exploration in 1991 and 1992. In 1994, Noranda Exploration Company Limited optioned and explored the property for volcanogenic massive sulphide-type mineralization.

The prospect lies within the Juro-Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists of diorites and granodiorites enclosing a series of northwest trending pendants. In the Mount Diadem area, feldspar-rich diorite and quartz diorite dominate. These pendants, occurring along Howe Sound and Jervis Inlet, are interpreted to be part of the Lower to Middle Jurassic Bowen Island Group, coeval with volcanic rock of the Bonanza Group and the Harrison Lake Formation.

Mount Diadem forms part of a ridge consisting of Bowen Island Group sediments and volcanics that form a 15 kilometre long by 1 to 2 kilometre wide roof pendant. Lithologies along the eastern portion of the pendant consist of dark green, chlorite-rich, massive volcanic flows and tuffs intercalated with grey to black cherty tuff and foliated, pyritic argillaceous siltstone. The west portion of the pendant contains well bedded clastic sediments, minor carbonate with intercalations of intermediate to mafic tuffs, flows and sills. In all, six stratigraphic units have been defined and in ascending order are: 1) tuffaceous sandstone, minor argillite and lapilli tuff, 2) chlorite-rich tuff with interbedded tuffaceous sandstone, minor argillite, 3) thin-bedded argillite, minor carbonate and lapilli tuff interbeds, 4) banded argillite, sandstone, chert, minor lapilli tuff, 5) siliceous argillite, siltstone, tuff, chert and 6) andesitic breccia.

Volcanics and sediments have a near-vertical bedding and cleavage that form a series of tight upright folds that plunge moderately to the north.

Property exploration between 1947 and 1950 led to the discovery of a narrow shear containing a gold-bearing quartz vein. The shear hostrocks are silicified and argillic (clay) altered. The vein has a vertical dip and can be traced along a strike of 040 degrees for over 244 metres. For the greater part of this distance the vein traverses various members of the volcanic assemblage, but at its northeastern end it persists into the plutonic rocks for over 30 metres. Mineralization is sparse, consisting of pyrite, arsenopyrite, sphalerite, chalcopyrite, minor galena and a few rare specks of native gold. The vein averages 20 centimetres width but does not exceed 23 centimetres. Samples taken at that time are reported to have yielded up to 1141.47 grams per tonne gold (Assessment Report 21459).

In 1982, exploration by Anaconda Canada Explorations Ltd. led to the discovery of two 0.8-metre wide quartz veins exposed in three separate creek gullies and separated by 2 metres of altered rock. Three chip samples yielded 24.3 grams per tonne over 16 centimetres, 30.4 grams per tonne gold over 7 centimetres and 27.0 grams per tonne gold over 30 centimetres width, respectively (Assessment Report 11641). Drilling in 1984 return on 12-metre intersection of 0.79 per cent copper, 2.74 per cent lead, 1.61 per cent zinc, 135.0 grams per tonne silver and 3.94 grams per tonne gold (GCNL #27 (February 9), 1998).

A 1983 chip sample across a width of 0.16 metre assayed 24.3 grams per tonne gold, 1.0 per cent zinc, 0.068 per cent copper and 23 grams per tonne silver (Assessment Report 11641). A sample in 1950, over a width of 2.54 centimetres, assayed as much as 179.79 grams per tonne gold (Minister of Mines Annual Report 1950, page 177). Twenty trenches were excavated in 1992. Ten of these trenches were excavated along the No Man's Creek quartz-sulphide vein. The best results from these trenches were from Sample 8, which yielded a weighted average of 94.97 grams per tonne gold over 2.18 metres (Assessment Report 22397). The sample also yielded 3.16 per cent

CAPSULE GEOLOGY

zinc and 0.18 per cent copper over 18 centimetres. The lowest values, from Sample 1, yielded a weighted average of 11.79 grams per tonne gold over 0.95 metre (Assessment Report 22397).

The Rox claims also hosts vein/replacement mineralization consisting of pyrite, pyrrhotite, sphalerite, galena, chalcopyrite and greenockite in quartz veins and clay fault gouge, and traced along a shear contact between sediments and volcanics for 475 metres. The veins vary from 0.1 to 0.3 metre width. Silicified and clay gouge wallrocks with fracture-filled mineralization ranges from 0.5 to 2.0 metres width. For further information on this style of mineralization refer to the Mt. Diadem occurrence (092K 084).

Stirrup Creek Gold Ltd. optioned the property from Navarre Resources Corp. in 1998.

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EM EXPL 1996-F12-F13
EMPR AR *1950, pp. 172-177
EMPR ASS RPT *11641, 13814, 18207, *21459, 22397, *23319
EMPR BULL *39, pp. 38,39
EMPR PF (Stirrup Creek Gold Limited Website (Nov. 1999): Rox Claims, 1 p.)
GSC MAP 1386A
GSC OF 480
GCNL #27 (Feb.9), #111(June 10), 1998
PR REL Stirrup Creek Gold Ltd., Feb.4, 1998
WWW <http://www.verdstonegroup.com/stirrup/>; <http://www.infomine.com/>

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

Considerable work has been carried out since 1949 by various operators. Geological mapping, limited diamond drilling and sampling of old adits and trenches were performed by Sphere Development Corp. in 1967. In 1970, Tiger Silver Mines Ltd. performed geophysical magnetic and geochemical soil surveys. Britain River Syndicate performed geological, geophysical and geochemical surveys in 1971. Some new anomalies were discovered. Minor rock sampling was conducted by Fury Explorations in 1980. The claims were transferred to Fury Explorations Ltd. in the early 1980s. In 1983, Anaconda Ltd. optioned these claims and conducted a drilling program, consisting of nine holes and 899 metres. In the late 1980s, Covenant Resources staked the Diadem claims, surrounding the claim owned by Fury Exploration and the Fox claim owned by R. Schmidt.

Immediately above the head of No Man's Creek on the northern slopes of Mount Diadem an old adit is located at an elevation of 900 metres. The adit lies within the Cretaceous Coast Plutonic Complex near its western boundary with the Insular Belt. The complex consists mainly of diorites, granodiorites, gneisses and migmatites enclosing a northwest trending belt (pendant) of Lower Cretaceous Gambier volcanic and sedimentary rocks. Only in the eastern and possibly basal part of the belt are mafic flows and interbedded tuff evident. These rocks have been metamorphosed to greenschist and less commonly amphibolite grade. Structural deformation has been intense with the early development of tight, moderate to steep, north plunging folds characterized by an axial planar cleavage. This has been overprinted with later, open style folds. Two shear orientations predominate, both which appear to locally control massive sulphide mineralization. One is subparallel to regional banding and parallel to the penetrative foliation. The other set strikes 060 to 100 degrees and is steeply dipping.

Seven rock units have been defined locally. These are: (1) tuffaceous sandstone, siltstone and argillite; andesitic flows, lapilli tuff and chloritic schist and massive diorite, (2) green-grey, chlorite-rich tuff, tuffaceous sandstone; felsic lapilli and vesicular flows and breccias and massive diorite, (3) rusty to black weathering, thinly bedded argillite, (4) well banded, grey-green interbedded argillite, siltstone, sandstone, black chert and lapilli tuffs, (5) siliceous argillite, tuffaceous siltstone, chert and lapilli tuff, (6) andesitic breccia and (7) feldspar-rich diorite, quartz diorite and granite.

The adit is collared at the contact of the volcanic rocks with the intrusive rocks. The adit penetrates the silicified, recrystallized volcanics for 12 metres, at which distance a 0.61-metre shear is intersected. Pods consisting of galena, sphalerite, pyrite and small amounts of chalcopyrite are exposed in the shear.

A 0.25-metre wide sample of the shear southeast of the adit assayed 0.017 per cent copper, greater than 1 per cent lead, greater than 1 per cent zinc, greater than 200 grams per tonne silver and 0.18 gram per tonne gold (Assessment Report 11641). A grab sample from the adit assayed 4.9 grams per tonne gold, 264 grams per tonne silver, 8.89 per cent lead, 8.62 per cent zinc and 0.02 per cent copper (Assessment Report 11641).

Diamond drilling completed under option to Anaconda has tested up to 175 metres along strike, the contact between sheared argillite-chloritized volcanics. Three zones were believed intersected; the North, Central and South. The best drilling results were obtained from the Central zone. Diamond-drill hole 84-3 intersected 0.79 per cent copper, 2.74 per cent lead, 1.61 per cent zinc and 148.80 grams per tonne silver over 12.0 metres (Assessment Report 18207). The Central zone was also intersected by drillholes 84-1, 84-5, 84-6, and 84-8. The South zone was intersected in drillhole 84-9, approximately 60 metres below the surface. A 7.7-metre section yielded 0.1 per cent copper, 1.48 per cent lead, 1.53 per cent zinc and 44.91 grams per tonne silver (Assessment Report 18207). Mineralization in all intersections is hosted in intensely deformed argillite.

Stirrup Creek Gold Ltd. held the property as the Rox claims in 1998. See also Rox (092K 083).

BIBLIOGRAPHY

- EMPR AR 1920-219; 1928-388; 1929-394; *1950-A175
- EMPR ASS RPT 2621, 3329, 8630, 9315, *11641, 13814, *18207
- EMPR BULL *39, p. 36
- EMPR OF 1999-2
- EMPR PF (Stirrup Creek Gold Limited Website (Mar. 1999): Rox Claims, 1 p.)
- GSC MAP 1386A
- GSC OF 480

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1084
REPORT: RGEN0100

BIBLIOGRAPHY

PR REL Stirrup Creek Gold Ltd., Feb.4, 1998
WWW <http://www.verdstonegroup.com/stirrup/>

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 085**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONTACT 7-10**, GOLD, JAWBREAKER,
QUAD, NAT

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

LATITUDE: 50 10 38 N
LONGITUDE: 125 14 42 W
ELEVATION: 75 Metres

UTM ZONE: 10 (NAD 83)

LOCATION ACCURACY: Within 500M

NORTHING: 5560748
EASTING: 339707

COMMENTS: These showings were investigated by Prince Stewart Mines (various reports located in Property File). Several other companies subsequently explored this part of the "lime-belt". The area seems to fall between the Stampede/YZ (092K 086) and Gold Exchange (092K 100) occurrences and may have been worked as part of one or the other.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Pyrrhotite
ALTERATION: Silica
ALTERATION TYPE: Silicific'n Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Skarn Epigenetic
TYPE: K01 Cu skarn
DIMENSION: 1000 x 0400 Metres

STRIKE/DIP:

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Mesozoic-Cenozoic

GROUP

Vancouver
Vancouver

FORMATION

Karmutsen
Quatsino

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Andesite
Limestone
Granodiorite
Granite
Diorite Porphyry

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

Plutonic Rocks

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The western half of Quadra Island lies within the Insular belt and is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation, Vancouver Group. These are interbedded with, and overlain to the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group.

The eastern half of Quadra Island lies within the Coast Crystalline Belt and is mainly underlain by Jurassic to Tertiary intrusive rocks of the Coast Plutonic Complex. These granitic rocks are in fault and/or intrusive contact with the Insular rocks along a northwest trending zone from Open Bay to Granite Bay. Skarn alteration is common throughout the length of limestone, and the term "lime-belt" expresses the historical interest in the area.

Prince Stewart Mines considered the most significant mineralization on their claim groups to underlie the Contact 7, 8, 9 and 10 claims (Prospectus, April, 1971). Mineralization occurs in a well pyritized, granitized and silicified length of volcanics that extend for about 1 kilometre in a northwest direction. The width of the area varies from 240 to 600 metres.

Small bodies of nearly barren granite, granodiorite and diorite porphyry intrude the volcanic rocks. Thin limestone bands occur with some of the better mineralization. A wide band, over 1 kilometre in places, of Quatsino Formation limestone separates several granodiorite bodies to the west, and from the main Coast Plutonic Complex contact to the east. Skarns are common along the granodiorite-limestone contact and sparse chalcopyrite occurs as dis-

CAPSULE GEOLOGY

seminations and fracture fillings.

One follow-up drill hole in the area intersected disseminated and thin streaks of pyrite, pyrrhotite and chalcopyrite from surface to 106 metres. A massive band of pyrrhotite was intersected from 47 to 47.2 metres. Small but insignificant amounts of gold, silver and nickel were indicated from assays.

These showings were investigated by Prince Stewart Mines (various reports located in Property File). Several other companies subsequently explored this part of the "lime-belt". The area seems to fall between the Stampede/YZ (092K 086) and Gold Exchange (092K 100) occurrences and may have been worked as part of one or the other.

BIBLIOGRAPHY

- EMPR ASS RPT *3100, *3167, 5680, 10538, 16143
EMPR BULL 23; 40
EMPR EXPL 1975-E111; 1981-320; 1987-218
EMPR GEM 1970-280; 1971-313
EMPR PF (*Prospectus: Prince Stewart Mines, Apr.19, 1971; Sheppard, E.P., (1970,1972): Geological Report on the Contact Claims, Quadra Island, Prince Stewart Mines Ltd.; Sheppard, E.P., (1973): Geological Report on the Pomeroy Group and Contact Group, Quadra Island Prince Stewart Mines Ltd.)
GSC MAP 120A; 1386A
GSC MEM 23, 146 pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/04/27

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 086**

NATIONAL MINERAL INVENTORY:

NAME(S): **WFP 7, YZ, SEPTEMBER,
CONTACT, GOLD 5, QUAD,
NAT, GOLD EXCHANGE, STAMPEDE**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 09 58 N
LONGITUDE: 125 14 15 W
ELEVATION: 69 Metres

NORTHING: 5559496
EASTING: 340205

LOCATION ACCURACY: Within 500M

COMMENTS: Descriptions indicated that this showing was worked in the early part of the century as the YZ and/or Stampede occurrence and possibly the old Gold Exchange showing, although the latter appears to plot a little further north. Prince Stewart Mines worked the showing in the early 1970's as the Contact group/WFP claims and gave the best detailed information (various reports). In 1975 Great Bear Mining Ltd. worked the property as the Gold claims (Assessment Report 5680) and in 1981 Greenwich Resources worked them as the Quad claims (Assessment Report 10538). The area is currently held as the Gold Exchange group/Nat claims by Nation River Resources. This company actively worked their claims in 1986 (Assessment Report 16143).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Pyrrhotite Chalcopyrite Bornite
ASSOCIATED: Quartz
ALTERATION: Pyrolusite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Skarn Hydrothermal Epigenetic Replacement
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Limestone
Porphyritic Andesite
Granodiorite
Skarn

HOSTROCK COMMENTS: Fossils at Open Bay are described as an Upper Triassic fauna of probably later Karnian age (Bulletin 40, page 36).

GEOLOGICAL SETTING

TECTONIC BELT: Insular PHYSIOGRAPHIC AREA: Georgia Depression
TERRANE: Wrangell Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1971
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 61.0000 Grams per tonne
Gold 158.0000 Grams per tonne
Copper 0.9200 Per cent

COMMENTS: Other samples from same report assayed as low as 27 grams per tonne gold.

REFERENCE: Sheppard, E.P., (1972): Geological Report on the Contact claims.

INVENTORY

ORE ZONE: TRENCH

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1975

SAMPLE TYPE: Channel

COMMODITY

GRADE

Silver

8.2272

Grams per tonne

Gold

17.6885

Grams per tonne

Copper

0.3000

Per cent

COMMENTS: Average trench sample over 1.5 metres (Trench C).

REFERENCE: Assessment Report 5680.

CAPSULE GEOLOGY

The WFP 7 showing is located 1 kilometre south-southwest from September Lake and east of Quadra Creek on Quadra Island. It is believed to be located on the old workings of the YZ claim and/or the Stampede claim of the early 1900's. Over 30 trenches and pits cover an area greater than 200 metres in length along the northwest strike.

The geology of Quadra Island consists of limestones and volcanics rocks in contact with the Juro-Cretaceous Coast Plutonic Complex. Striking northwest through the centre of the island is a soft dark, banded, tightly folded, crystalline limestone of the Upper Triassic Quatsino Formation. The banding is caused by argillaceous layers a few centimetres thick. To the southwest and stratigraphically below are finely porphyritic andesites of the Upper Triassic Karmutsen Formation. Locally, the volcanics are basaltic and may exhibit pillow and pyroclastic features. The Quatsino Formation limestone and Karmutsen Formation volcanic rocks are intimately interbedded along the central zone of the island, which is known historically as the "lime belt". The "lime belt" crosses the island in a northwest direction from Open Bay to Deepwater Bay. The northeastern edge of the belt is in contact (partly intrusive, partly faulted) with the Jurassic to Cretaceous Coast Plutonic Complex. It ranges from quartz diorite to granodiorite in composition.

This occurrence is located within the "lime belt", approximately 1 kilometre from the granodiorite contact. Quartz veining, fracturing and some skarn development is evident. Mineralization is found disseminated in quartz veins, along fractures, along limestone-andesite contacts and throughout both the limestone (in places a skarn) and andesite. Sulphide minerals found at this showing include arsenopyrite, pyrrhotite, pyrite and chalcopyrite, minor bornite and pyrolusite.

A typical trench sample taken in 1975 assayed 17.69 grams per tonne gold, 8.23 grams per tonne silver and 0.30 per cent copper over 1.5 metres (Assessment Report 5680). Material chipped from a chalcopyrite-rich rock in 1972 assayed 158.0 grams per tonne gold, 61.0 grams per tonne silver and 0.92 per cent copper.

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- EMPR AR 1898-1197; 1913-284,286; 1914-382
EMPR ASS RPT 3100, 3167, *5680, *10538, 16143, 17797
EMPR BULL 23; 40
EMPR EXPL 1975-E111; 1981-320; 1987-218
EMPR GEM 1970-280; 1971-313
EMPR PF (Sheppard, E.P., (1970,1972): Geological Report on the Contact Claims, Quadra Island, Prince Stewart Mines Ltd., (1973): Geological Report on the Pomeroy Group and Contact Group, Quadra Island, Prince Stewart Mines Ltd.; Prospectus, Prince Stewart Mines, Apr. 19, 1971)
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/04/24

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 087**

NATIONAL MINERAL INVENTORY: 092K6,7

NAME(S): **SHOWING NUMBER TWO**, LM 9, LM,
RAZA ISLAND

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06E
BC MAP:

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)

LATITUDE: 50 19 05 N
LONGITUDE: 125 00 13 W
ELEVATION: 46 Metres

NORTHING: 5575914
EASTING: 357362

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map, Showing Number Two, Assessment Report 3446.

COMMODITIES: Zinc Lead Copper

MINERALS

SIGNIFICANT: Sphalerite Galena Chalcopyrite

COMMENTS: Minor chalcopyrite.

ALTERATION: Epidote Chlorite

ALTERATION TYPE: Epidote Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: 0001 Metres

STRIKE/DIP: 260/50N TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Feldspathic Dike
Gabbroic Rock
Diorite
Granodiorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1971
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Copper		0.0600	Per cent
Lead		0.4400	Per cent
Zinc		1.0100	Per cent
COMMENTS:	Small sample.		
REFERENCE:	Assessment Report 3446.		

CAPSULE GEOLOGY

The island is composed of diorite, granodiorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. Shear zones crosscut the island in a southwest direction. Fine mineralization in the form of pyrite is found disseminated throughout, but most concentrated in the shear zones. Molybdenite is recorded as being found on the island, but later exploration was unable to locate it (Minister of Mines Annual Report 1968, page 73; Assessment Report 3446).

Showing Number Two is 1.5 metres wide, trends 260 degrees with 50 degrees north dip and occurs on the extremely irregular hangingwall contact of a feldspathic dyke. The host is medium to coarse-grained and most likely gabbroic in composition, with an abundance of epidote and chlorite. The mineralization consists of coarsely disseminated sphalerite, galena and minor chalcopyrite. A small sample assayed 1.01 per cent zinc, 0.44 per cent lead and 0.06 per cent copper (Assessment Report 3446).

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1090
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR AR *1968-73
EMPR ASS RPT *3446, 3447
EMPR GEM 1969-190; 1972-290
EMPR PF (Prospectus (1971): Falcon Explorations Limited)
GSC MAP 1386A
GSC OF 480
GCNL #182, 1984

DATE CODED: 1985/07/24
DATE REVISED: 1988/01/25

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 088**

NATIONAL MINERAL INVENTORY: 092K6,7

NAME(S): **SHOWING NUMBER THREE**, LM 17, LM,
RAZA ISLAND

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 18 35 N
LONGITUDE: 125 00 13 W
ELEVATION: 198 Metres

NORTHING: 5574988
EASTING: 357337

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map, Showing Number Three, Assessment Report 3446.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
ASSOCIATED: Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: L04 Porphyry Cu ± Mo ± Au
DIMENSION: 0002 Metres

STRIKE/DIP: 260/60S

TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite
Aplite Dike
Diorite
Granodiorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Copper

YEAR: 1971

GRADE: 0.0900 Per cent

COMMENTS: Random sample.
REFERENCE: Assessment Report 3446.

CAPSULE GEOLOGY

The island is composed of diorite, granodiorite and quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. Shear zones crosscut the island in a southwest direction. Fine mineralization in the form of pyrite is found disseminated throughout, but most concentrated in the shear zones. Molybdenite is recorded as being found on the island, but later exploration was unable to locate it (Minister of Mines Annual Report 1968, page 73; Assessment Report 3446).

Showing Number Three is described as a 2.4 metre wide zone of highly sheared and altered quartz monzonite, trending 260 degrees with a 60 degree south dip. The mineralization is finely disseminated chalcopyrite with minor pyrite. Copper staining on slip surfaces is common. Aplite dykes with the same attitude as the mineralized zone are common in the surrounding area. A random sample of this mineralization had an assay result of 0.09 per cent copper (Assessment Report 3446).

BIBLIOGRAPHY

EMPR AR *1968-73
EMPR ASS RPT *3446, 3447
EMPR GEM 1969-190; 1972-290
EMPR PF (Prospectus (1971): Falcon Exploration Limited)

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1092
REPORT: RGEN0100

BIBLIOGRAPHY

GSC MAP 1386A
GSC OF 480
GCNL #182, 1984

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/25

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 089**

NATIONAL MINERAL INVENTORY:

NAME(S): **ZAP**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K04E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 03 34 N
LONGITUDE: 125 32 56 W
ELEVATION: 290 Metres

NORTHING: 5548352
EASTING: 317564

LOCATION ACCURACY: Within 500M

COMMENTS: Open cut #2, Assessment Report 3705.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Bornite
ALTERATION: Quartz
ALTERATION TYPE: Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Agglomerate
Amygdaloidal Andesite
Amygdaloidal Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY: Copper

YEAR: 1971

GRADE: 3.0000 Per cent

REFERENCE: Assessment Report 3705.

CAPSULE GEOLOGY

The Zap showing is located approximately 20 kilometres west of Campbell River and directly north of Boot Lake. The area is underlain by Upper Triassic Karmutsen Formation amygdaloidal andesites and basalts.

Disseminated knots of chalcopyrite and bornite are contained within a silicified coarse agglomerate unit. It is exposed for over 24 metres in two trenches. Grab samples from this zone assayed 3 per cent copper (Assesment Report 3705).

BIBLIOGRAPHY

EMPR ASS RPT 3180, *3705
EMPR GEM 1972-285
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/22

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 090**

NATIONAL MINERAL INVENTORY:

NAME(S): **WIN**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K04E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 04 09 N
LONGITUDE: 125 31 05 W
ELEVATION: 290 Metres

NORTHING: 5549358
EASTING: 319808

LOCATION ACCURACY: Within 500M

COMMENTS: Open Cut #1, Assessment Report 3705.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Bornite Chalcocite
ASSOCIATED: Calcite
ALTERATION: Azurite Malachite Epidote Quartz
ALTERATION TYPE: Silicific'n Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Volcanogenic Hydrothermal

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Basalt
Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Win showing is located approximately 20 kilometres west of Campbell River and directly north of Boot Lake. The area is underlain by Upper Triassic Karmutsen Formation amygdaloidal basalts and andesites.

Dark green amygdaloidal basalts or andesites are exposed within an open cut 15 metres long. The exposure is permeated by fine veinlets of calcite and epidote and shows evidence of silicification. Mineralization, which includes chalcopyrite, bornite, chalcocite, azurite and malachite is disseminated and distributed erratically within silicified fractures and amygdules.

BIBLIOGRAPHY

EMPR ASS RPT 3180, *3705
EMPR GEM 1972-285
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/22

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 091**

NATIONAL MINERAL INVENTORY:

NAME(S): **SOUTHGATE BLACKSAND**, SOUTHGATE RIVER

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K15E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 53 35 N
LONGITUDE: 124 47 36 W
ELEVATION: 1 Metres

NORTHING: 5639464
EASTING: 373878

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map, Southgate River Delta, (Property File, Cooke, 1972).

COMMODITIES: Magnetite Iron Titanium

MINERALS

SIGNIFICANT: Magnetite
ASSOCIATED: Quartz Clay Biotite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Placer Industrial Min.
TYPE: C01 Surficial placers
DIMENSION: 1372 x 1219 x 0016 Metres

STRIKE/DIP: TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Quaternary
Cretaceous-Tertiary

GROUP

Undefined Group

FORMATION

Undefined Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Sediment/Sedimentary
Magnetite

HOSTROCK COMMENTS: Source of placer considered to be Coast Plutonic Complex.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Grab
COMMODITY

COMMODITY	GRADE	
Iron	66.4000	Per cent
Magnetite	10.2100	Per cent
Titanium	0.5900	Per cent

COMMENTS: Sample at depth of 1.5 metres.
REFERENCE: Property File - Cooke, D.L., 1972.

CAPSULE GEOLOGY

The Southgate Blacksand is found on the Southgate River Estuary. The Southgate River flows into the east side of the harbour at the head of Bute Inlet.

The prospect is located on the flat flood plain area near the mouth of the river. Unconsolidated sand occurs throughout the area, in places more than 15.24 metres thick. The sand is composed of white quartz grains, magnetite grains, clay, brown biotite flakes and minor feldspar and epidote grains.

A best assay of 66.4 per cent iron and 0.59 per cent titanium was obtained from a sand sample containing 10.21 per cent magnetite by volume. For an area 1372 by 1219 metres and to an average depth of 16.76 metres, the potential is for 2,222,603 tonnes of magnetite (Property File - Cooke, D.L., 1972).

BIBLIOGRAPHY

EMPR PF (*Cooke, D.L. (1972): Preliminary Report on the Placer Magnetite Deposit, Bute Inlet Area; Tidsbury, A.D. (1972): Letter to J.W. Peck)
GSC MAP 1386A

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RUN TIME: 09:30:14

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DATE CODED: 1985/07/24
DATE REVISED: 1989/03/16

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 092**

NATIONAL MINERAL INVENTORY:

NAME(S): **RED**, REDONDA, REDONDITA

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 01 N
LONGITUDE: 124 55 30 W
ELEVATION: 500 Metres

NORTHING: 5571937
EASTING: 362859

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map in Assessment Report 8085.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Molybdenite Pyrite
ASSOCIATED: Quartz
ALTERATION: Chlorite Biotite
ALTERATION TYPE: Chloritic Biotite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein Breccia
CLASSIFICATION: Porphyry Hydrothermal
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Jurassic-Cretaceous

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Breccia
Quartz Diorite Hornblende Porphyry
Quartz Diorite Porphyry

HOSTROCK COMMENTS: Age of 111 to 113 million years from East Redonda Island (Geological Survey of Canada Open File 480).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: DRILLHOLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Drill Core

YEAR: 1980

COMMODITY

GRADE

Copper	0.2300	Per cent
Molybdenum	0.0590	Per cent

COMMENTS: Over 27.5 metres.

REFERENCE: Assessment Report 8085.

CAPSULE GEOLOGY

The Red showing is located on the northwest flanks of Mount Petritt in the northwest corner of West Redonda Island. The area is underlain by diorites of the Jurassic to Cretaceous Coast Plutonic Complex. Age dating from the southern part of West Redonda Island indicates an age of 111 to 113 million years by potassium-argon from biotite and hornblende (Geological Survey of Canada Open File 480).

Two later stage quartz diorite intrusions underlie most of the area around the showing, an irregular quartz diorite hornblende porphyry dyke and a quartz diorite porphyry plug. The quartz diorite hornblende porphyry is surrounded by a wide and irregular breccia zone. The breccia zone is composed of quartz diorite fragments in a matrix of quartz diorite hornblende porphyry. Chlorite-biotite alteration is prevalent in the matrix of the breccia zone.

Widespread pyrite mineralization is disseminated throughout most of the rocks in the area, up to 2 per cent in the breccia zone. A concentration of disseminated chalcopyrite is localized in and near the breccia zone. Molybdenite occurs primarily in quartz filled fractures in the general area of chalcopyrite and partly as a dissemination in the breccia zone.

In 1980 a drill core sample, assayed 0.23 per cent copper and

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CAPSULE GEOLOGY

0.059 per cent molybdenum over 27.5 metres (Assessment Report 8085).

BIBLIOGRAPHY

EMPR ASS RPT 638, 4176, 6330, *7346, *8085, 8280
EMPR EXPL 1977-E173; 1979-188; 1980-267
EMPR GEM 1972-286
GSC MAP 1386A
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/26

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 093**

NATIONAL MINERAL INVENTORY:

NAME(S): **ACE**, GRAY CREEK

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 33 49 N
LONGITUDE: 125 27 22 W
ELEVATION: 457 Metres

NORTHING: 5604179
EASTING: 326054

LOCATION ACCURACY: Within 1 KM

COMMENTS: Centre of Ace claims (Assessment Report 12224).

COMMODITIES: Gold Silver Copper Molybdenum Zinc
Lead

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite Pyrite Galena Sphalerite
ASSOCIATED: Quartz
ALTERATION: K-Feldspar Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Hydrothermal Epigenetic Replacement
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Granodiorite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1983
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 1.6000 Grams per tonne
Gold 0.1380 Grams per tonne
Copper 0.0034 Per cent

COMMENTS: Sample from Striker 7 claim.
REFERENCE: Assessment Report 12224.

CAPSULE GEOLOGY

The Ace showing is found near the headwaters of Gray (Grey) Creek, south of Mount Bagshaw. The area around the showing is underlain by diorites and granodiorites of the Jurassic to Cretaceous Coast Plutonic Complex.

Molybdenite, chalcopyrite, pyrite and some galena and sphalerite are found disseminated on fracture plane surfaces and in small quartz veinlets within the granodiorite. Potassic and epidote alteration is associated with the mineralization. Assays are erratic, with extreme highs and lows throughout the area. Values range to greater than 10 grams per tonne silver, 0.0025 to 0.025 per cent copper, 0.0009 to 0.037 per cent zinc, 0.0005 to 0.0045 per cent molybdenite, and 0.0004 to 0.039 per cent lead (Assessment Reports 5173 and 12224).

BIBLIOGRAPHY

EMPR ASS RPT *5173, *12224
EMPR EXPL 1983-328
EMPR GEM 1974-209
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/15

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 093**

MINFILE NUMBER: **092K 094**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAGNET**, DARKWATER

STATUS: Developed Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 14 27 N
LONGITUDE: 125 20 44 W
ELEVATION: 90 Metres

NORTHING: 5568041
EASTING: 332751

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the northwest corner of the Darkwater claim
(Assessment Report 12087).

COMMODITIES: Copper Iron Magnetite

MINERALS

SIGNIFICANT:	Pyrrhotite	Pyrite	Chalcopyrite	Magnetite
ALTERATION:	Quartz	Garnet	Epidote	Hornblende
ALTERATION TYPE:	Skarn			
MINERALIZATION AGE:	Unknown			

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn Industrial Min.
TYPE: K01 Cu skarn K03 Fe skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic Mesozoic-Cenozoic	Vancouver	Karmutsen	Coast Plutonic Complex

LITHOLOGY: Andesite
Granitic Intrusive Rock

HOSTROCK COMMENTS: Mineralization occurs in andesites near granitic intrusive rocks.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: UNDERGROUND WORKINGS REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1913
SAMPLE TYPE: Chip
COMMODITY _____ GRADE _____
Copper 0.6100 Per cent

COMMENTS: Unknown sample width.

REFERENCE: Geological Survey of Canada Summary Report 1913, page 68.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A pyrrhotite deposit in andesitic rock near granitic intrusive rocks strikes 135 degrees and has a thickness of about 1.8 metres. The ore material extends over the surface, blanket fashion, for 15 metres or more and then suddenly dips down almost vertically.

A 40 metre crosscut tunnel cuts the ore material about 30 metres from the surface. Here, the deposit consists dominantly of pyrrhotite, pyrite and some disseminated chalcopyrite, small amounts of quartz, garnet, epidote, hornblende and associated silicates. One sample taken across the ore material assayed trace gold, nil silver and 0.61 per cent copper (Geological Survey of Canada Summary Report 1913).

A magnetite deposit also occurs nearby. The deposit is from 0.3 to 1.8 metres in thickness and is composed mainly of magnetite, epidote and related silicates.

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BIBLIOGRAPHY

EMPR AR 1904-302; *1911-K194; 1916-524; 1958-72
EMPR ASS RPT 10644, 11014, *12087
EMPR BULL 23; 40
EMPR EXPL 1982-221
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, p. 68

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/12

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 095**

NATIONAL MINERAL INVENTORY:

NAME(S): **NICKEL PLATE**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 13 53 N
LONGITUDE: 125 19 44 W
ELEVATION: 180 Metres

NORTHING: 5566953
EASTING: 333906

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located from Map 120A (Geological Survey of Canada Summary Report 1913).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Pyrite
ALTERATION: Garnet Epidote Chlorite Hornblende
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Massive Podiform
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	

LITHOLOGY: Andesite
Limestone
Granitic Dike

HOSTROCK COMMENTS: Andesite cut by granitic dykes hosts mineralization. Limestone outcrops nearby.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A 6 metre wide contact metamorphic zone, enclosed on both sides by andesite, is composed mainly of garnet, epidote, chlorite, hornblende and related silicates. Limestone outcrops within 15 metres and the andesite is intruded by a granitic dyke.

Ore minerals are chiefly limited to a 1.8 metre wide band and consist mainly of pyrrhotite with some chalcopyrite and pyrite. The ore material occurs irregularly distributed throughout the metamorphic zone as particles, lenses and masses which generally follow fractures. Some magnetite is also observed.

BIBLIOGRAPHY

EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 68,69

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/12

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 096**

NATIONAL MINERAL INVENTORY:

NAME(S): **HOOK**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 51 N
LONGITUDE: 125 16 54 W
ELEVATION: Metres

NORTHING: 5563082
EASTING: 337158

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located on the south side of an old rail line about 5.5 kilometres southeast of Granite Bay. Geological Survey of Canada Map 120A shows the Hook claim to be west-southwest of the Lucky Jim (092K 015), which would put it approximately within the bounds of the Butterfly claim L.1123 (Geological Survey of Canada Summary Report 1913). Situated about 1.6 kilometres southwest from the Pelican (092K 115), Minister of Mines Annual Report 1913.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite
COMMENTS: Trace gold, nil silver.
ASSOCIATED: Quartz Calcite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: K01 Cu skarn
COMMENTS: Quartz-calcite masses strike northeast and dip 75 degrees northwest.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic Mesozoic-Cenozoic	Vancouver	Quatsino	Coast Plutonic Complex

LITHOLOGY: Limestone
Granitic Rock

HOSTROCK COMMENTS: Mineralization occurs in limestone bordering a granitic intrusion.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip
COMMODITY: Copper
GRADE: 0.1300 Per cent

YEAR: 1913

COMMENTS: Taken across 1.2 metres.

REFERENCE: Geological Survey of Canada Summary Report 1913, page 71.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

Bunches, lenses up to 1 metre thick, or vein-like masses of quartz and calcite occur irregularly distributed in limestone bordering granitic intrusive rocks. These quartz-calcite masses carry disseminated pyrite, pyrrhotite and chalcopyrite and are reported to strike northeast and dip 75 degrees northwest. A 1.2 metre sample of ore material taken in the bottom of a 2.4 metre shaft assayed trace gold, nil silver and 0.13 per cent copper (Geological Survey of Canada Summary Report 1913).

On the surface within a few metres of the shaft a mass of material about 1 metre wide is composed chiefly of pyrrhotite.

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EMPR AR *1913-285,286
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, p. 71

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/09

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 097**

NATIONAL MINERAL INVENTORY:

NAME(S): **REBECCA**, GOLD THREAD

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 55 N
LONGITUDE: 125 16 29 W
ELEVATION: 90 Metres

NORTHING: 5563190
EASTING: 337658

LOCATION ACCURACY: Within 1 KM

COMMENTS: The Rebecca claims were staked in 1932 covering the old Gold Thread claims. The workings are 400 metres at 120 degrees from the house of Mr. Stromberg; the house is approximately 5.0 kilometres southeast from Granite Bay (Stevenson, 1938). Map 120A places it just south of the Lucky Jim (092K 015), Geological Survey of Canada Summary Report 1913. The occurrence may occur on one of the crown grant claims in the area.

COMMODITIES: Copper Gold

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite Pyrite Gold Sylvanite
Telluride

COMMENTS: Economic minerals occur as sparse disseminations in quartz vein.

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Porphyritic Andesite
Andesite Dike

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

The Gold Thread showing consists of a lenticular quartz vein striking 155 degrees and dipping 70 degrees to the northeast. The vein follows tight shearing occurring within porphyritic andesite that is also cut by numerous fine-grained andesite dykes.

The vein/lens ranges from 2 to 30 centimetres in thickness. The quartz is sparsely mineralized containing occasional particles of chalcopyrite, pyrrhotite, pyrite, native gold and a black lustrous telluride identified as sylvanite. Two samples, 20 and 30 centimetres in width, both assayed nil in gold and silver (Stevenson, J.D., 1938).

BIBLIOGRAPHY

EMPR BULL 23; 40
EMPR PF (*Special Report on the Rebecca claims for Minister of Mines
Annual Report 1938 by J.S. Stevenson)
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, p. 72

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/10

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 097**

MINFILE NUMBER: **092K 098**

NATIONAL MINERAL INVENTORY:

NAME(S): **CORMORANT**, DORA (L.1129)

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 13 N
LONGITUDE: 125 16 50 W
ELEVATION: 106 Metres

NORTHING: 5561906
EASTING: 337202

LOCATION ACCURACY: Within 500M

COMMENTS: Located 0.8 kilometres west of the Condor (092K 099), Minister of Mines Annual Report 1913, page 285. The report places it on the Dora claim (L.1129).

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Pyrite
ASSOCIATED: Calcite Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	

LITHOLOGY: Andesite
Limestone

HOSTROCK COMMENTS: Mineralization occurs within an andesite bed in limestone.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N
CATEGORY: Assay/analysis	YEAR: 1913
SAMPLE TYPE: Grab	
COMMODITY	GRADE
Silver	6.8600 Grams per tonne
Gold	2.0600 Grams per tonne
Copper	2.7000 Per cent

REFERENCE: Minister of Mines Annual Report 1913, page 285.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A shaft has been sunk 12 metres on pyrrhotite occurring in limestone that strikes north and dips 75 degrees east. A 1.2 metre wide zone of ore occurs in the bottom of the shaft and a 7.5 metre width of ore occurs on the surface. The ore occurs in north trending fissures cutting andesite and consists of crystalline calcite and quartz containing pyrite, pyrrhotite and minor chalcopyrite. A sample from the surface assayed 2.06 grams per tonne gold, 6.86 grams per tonne silver and 2.7 per cent copper (Minister of Mines Annual Report 1913, page 285).

BIBLIOGRAPHY

EMPR AR *1913-285
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146

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BIBLIOGRAPHY

GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/08

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 099**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONDOR**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W 092K03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 14 N
LONGITUDE: 125 15 19 W
ELEVATION: 90 Metres

NORTHING: 5561882
EASTING: 339007

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located northwest of the Anaconda (092K 111) adjoining the Geiler claim, L.1369 (Annual Reports 1911, page 194; 1913, page 285).
May be located on or north, or west of the Ted (L.1502).

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Pyrrhotite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Podiform
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Andesite
Intrusive Rock

HOSTROCK COMMENTS: Mineralization occurs at the contact of limestone and andesite.
Intrusive rocks occur a few hundred metres west.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE	REPORT ON: N	
CATEGORY: Assay/analysis	YEAR: 1913	
SAMPLE TYPE: Grab		
<u>COMMODITY</u>	<u>GRADE</u>	
Silver	6.8600	Grams per tonne
Gold	0.6900	Grams per tonne
Copper	0.9000	Per cent

REFERENCE: Minister of Mines Annual Report 1913, page 286.

CAPSULE GEOLOGY

The area is underlain by the Upper Triassic Vancouver Group consisting of Karmutsen Formation volcanics rocks which are overlain on the northeast by a northwest trending belt of Quatsino Formation limestone. The latter is known historically as the "lime-belt". These are in fault and/or intrusive contact to the northeast with intrusive rocks of the Jurassic to Tertiary Coast Plutonic Complex.

A body of pyrrhotite with quartz about 1 metre wide has been exposed at the mouth of a tunnel that has been driven 33 metres south-west in limestone. The Condor occurrence is situated to the north-west of the Anaconda (092K 111), which exhibits similar geology. The latter occurs at the contact of andesitic rock and limestone. The intrusive contact occurs within a few hundred metres to the northeast.

A sample of pyrrhotite and quartz assayed 0.69 grams per tonne gold, 6.86 grams per tonne silver and 0.9 per cent copper (Minister of Mines Annual Report 1913, page 285).

BIBLIOGRAPHY

EMPR AR 1911-194; *1913-285,286
EMPR ASS RPT 16142, 16143

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1109
REPORT: RGEN0100

BIBLIOGRAPHY

EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, 146 pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A,
pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/01

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 100**

NATIONAL MINERAL INVENTORY:

NAME(S): **WFP 22**, GOLD EXCHANGE, JAWBREAKER,
CONTACT, QUAD, NAT,
T-14-01

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W 092K03E

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 10 49 N
LONGITUDE: 125 15 08 W

NORTHING: 5561103
EASTING: 339202

ELEVATION: 90 Metres
LOCATION ACCURACY: Within 500M

COMMENTS: Located about 500 metres southeast of Stramberg Lake on the Prince Stewart Mines' lapsed WFP 22 claim (Assessment Report 5680). Various Minister of Mines Annual Reports indicate that the old Gold Exchange workings are located in the vicinity of the WFP 22. The Gold Exchange occurrence is reported to exist 0.5 miles south-west of the Anaconda (092K 111) located on the shore of Stramberg Lake near the present day Geiler claim (L.1369).

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Arsenopyrite Pyrite Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz
COMMENTS: Skarn mineralization not described.
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Skarn Hydrothermal Epigenetic
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Andesite
Basalt
Limestone
Intrusive Rock

HOSTROCK COMMENTS: Skarn mineralization occurs in Karmutsen Formation volcanics and interbedded limestone. Intrusive rocks occur to the east.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis
SAMPLE TYPE: Chip

YEAR: 1975

COMMODITY	GRADE	
Silver	13.0300	Grams per tonne
Gold	4.0500	Grams per tonne
Copper	0.0200	Per cent

COMMENTS: From a 1.2 metre chip sample.
REFERENCE: Assessment Report 5680.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks which are overlain on their northeastern margin by a northwest trending belt of Quatsino Formation limestones known historically as the "lime-belt". These are in fault and/or intrusive contact to the northeast with Jurassic to Tertiary intrusive rocks of the Coast Plutonic Complex.

The WFP 22 skarn deposit is underlain by basaltic or andesitic volcanics with interbeds of limestone. On the surface the skarn shows many lenses and small blocks of porphyritic andesite and is cut by

CAPSULE GEOLOGY

quartz veins. Drill core samples show mineralization at various depths, always associated with a light grey skarn. Arsenopyrite, pyrite, pyrrhotite and chalcopyrite are the main sulphides.

One 1.2 metre surface chip sample assayed 4.05 grams per tonne gold, 13.03 grams per tonne silver and 0.02 per cent copper (Assessment Report 5680).

BIBLIOGRAPHY

EMPR AR 1898-1197; 1913-284
EMPR ASS RPT 3100, 3167, *5680, 10538, 16143, 17797
EMPR BULL 23; 40
EMPR EXPL 1975-E111; 1981-320; 1987-218
EMPR GEM 1970-280; 1971-313
EMPR PF (*Prospectus, Prince Stewart Mines, Apr.19, 1971; Sheppard, E.P. (1970,1972): Geological Report on the Contact Claims, Quadra Island, Prince Stewart Mines Ltd.; *Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, Quadra Island, Prince Stewart Mines, Ltd.)
GSC MEM 23
GSC MAP 120A; 1386A
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT 1913, p. 75

DATE CODED: 1989/04/27
DATE REVISED: 1989/05/24

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 101**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONTACT 1,2,6, WING, HALL,
GOLD, QUAD, GOLD EXCHANGE,
NAT**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E

UTM ZONE: 10 (NAD 83)

BC MAP:
LATITUDE: 50 10 16 N
LONGITUDE: 125 14 21 W

NORTHING: 5560056
EASTING: 340103

ELEVATION: 75 Metres
LOCATION ACCURACY: Within 500M

COMMENTS: Located on the Contact 1,2 and 6 claims of Prince Stewart Mines (Various reports by Sheppard, Assessment Reports 3100, 3167). Several other companies subsequently worked this part of the "lime-belt". The showings seem to fall between the old Stampede/YZ (092K 086) and Gold Exchange (092K 100) occurrences and may have been worked as part of one or the other.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Pyrrhotite Bornite Gold

Silver

ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Limestone
Andesite
Intrusive Rock

HOSTROCK COMMENTS: Mineralization occurs in veins and shears in limestone and andesites and where they are in contact.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: HALL

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1972

SAMPLE TYPE: Chip

COMMODITY

GRADE

Silver

83.0000

Grams per tonne

Gold

168.0000

Grams per tonne

COMMENTS: Chip from a 2.4 by 0.6 metre area.

REFERENCE: Sheppard, E.P., (1972): Report on Contact Claim.

CAPSULE GEOLOGY

The area is underlain by the northwest trending contact of Vancouver Group, Upper Triassic Quatsino Formation limestones ("lime-belt") and Karmutsen Formation andesites with the Jurassic to Tertiary Coast Plutonic Complex.

Several areas of chalcopyrite in quartz veins were investigated by Prince Stewart Mines on the Contact 1,2 and 6 claims (various reports by Sheppard). The Wing showing on Contact 1 and/or 2 is a shear containing chalcopyrite, bornite, gold and silver. The best chip sample from this zone assayed 3.4 grams per tonne gold, 36.0 grams per tonne silver and a trace of copper over 0.9 metres (Sheppard, 1972). An old shaft about 30 metres deep that had been driven on a quartz vein up to 0.6 metres wide was located on Contact 1. This vein was mineralized with pyrrhotite, pyrite and chalcopyrite.

A "random chip" sample from the Hall showing on Contact 6 con-

CAPSULE GEOLOGY

tained 168 grams per tonne gold and 83 grams per tonne silver (Sheppard, 1972). This chip was derived from a 2.4 by 0.6 metre area composed of a quartz vein up to 1.2 metres wide, occurring at the contact between limestone and andesite.

BIBLIOGRAPHY

EMPR ASS RPT *3100, *3167, 5680, 10538, 16143, 17797
EMPR BULL 23; 40
EMPR EXPL 1975-E111; 1981-320; 1987-218
EMPR GEM 1970-280; 1971-313
EMPR PF (*Prospectus, Prince Stewart Mines, Apr. 19, 1971;
Sheppard, E.P., (1970,1972): Geological Report on the Contact
claims, Quadra Island, Prince Stewart Mines Ltd., (1973):
Geological Report on the Pomeroy group and Contact group, Quadra
Island, Prince Stewart Mines Ltd.)
GSC MAP 120A; 1386A
GSC MEM 23
GSC OF 463, 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A,
pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1989/04/28
DATE REVISED: 1989/04/28

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 102**

NATIONAL MINERAL INVENTORY:

NAME(S): **RISING SUN (L.722)**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 33 N
LONGITUDE: 125 16 56 W
ELEVATION: 90 Metres

NORTHING: 5564380
EASTING: 337158

LOCATION ACCURACY: Within 500M

COMMENTS: Located on Rising Sun claim (L.722) situated 3.5 kilometres east of Giant Bay. The Rising Sun claim is part of the Lucky Jim group.

COMMODITIES: Copper Gold

MINERALS

SIGNIFICANT: Unknown
COMMENTS: May be similar to nearby Lucky Jim (092K015) occurrence.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn
COMMENTS: Assumed to be skarn mineralization which is typical of the area.

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Andesite
Limestone
Intrusive Rock

HOSTROCK COMMENTS: Assumed to be of similar lithologic character as the adjacent Lucky Jim (092K 015) occurrence.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Rising Sun claim (L.722) is located in an area of skarn-type mineralization. The area is underlain by the Upper Triassic Quatsino and Karmutsen formations (Vancouver Group). The formations are in fault and/or intrusive contact to the immediate east with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A "splendid" showing of ore 0.76 metres in width and carrying good values in copper and gold was reported (Minister of Mines Annual Report 1911).

BIBLIOGRAPHY

EMPR AR 1908-148; *1911-194; 1912-327
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, 146pp.
GSC OF 463; 480
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1989/05/10
DATE REVISED: 1989/05/19

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 103**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **COLLEEN 1, COPPER KING, COPPER MOUNTAIN, HALL TRENCHES**

STATUS: Developed Prospect
REGIONS: British Columbia
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

LATITUDE: 50 07 45 N
LONGITUDE: 125 16 50 W
ELEVATION: 122 Metres

UTM ZONE: 10 (NAD 83)

LOCATION ACCURACY: Within 500M

NORTHING: 5555482
EASTING: 337005

COMMENTS: Hall trenches, 1.75 kilometres south of Morte Lake, 5.75 kilometres north-northwest from the village of Heriot Bay (Assessment Report 5076).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite
ASSOCIATED: Quartz Calcite
ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown
ISOTOPIC AGE:

DATING METHOD: Unknown

MATERIAL DATED:

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE: Upper Triassic
GROUP: Vancouver
FORMATION: Karmutsen
IGNEOUS/METAMORPHIC/OTHER:

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: COLLEEN 1
CATEGORY: Indicated
QUANTITY: 45355 Tonnes
COMMODITY: Copper
GRADE: 2.4000 Per cent
YEAR: 1973
COMMENTS: Indicated reserves based on trenching.
REFERENCE: Property File - see 092K 071, Sheppard, 1973.

ORE ZONE: COLLEEN 1
CATEGORY: Measured
QUANTITY: 4535 Tonnes
COMMODITY: Copper
GRADE: 3.4500 Per cent
YEAR: 1973
COMMENTS: Proven reserves based on trenching.
REFERENCE: Property File - see 092K 071, Sheppard, 1973.

CAPSULE GEOLOGY

The Colleen 1 showing is located 1.75 kilometres south of Morte Lake, 5.75 kilometres north-northwest of the community of Heriot Bay on Quadra Island. It lies at the northwest end of a belt of 10 copper showings on the west side of Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In

CAPSULE GEOLOGY

1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Colleen 1 is comprised of chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. The mineralization occurs along fracture plane surfaces and within irregular quartz-calcite veinlets.

Proven reserves are 4535 tonnes grading 3.45 per cent copper; indicated reserves are 45,355 tonnes grading 2.4 per cent copper. The reserves are based on trenching (Property File - see 092K 071, Sheppard, 1973).

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 104**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER FLAT**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 07 13 N
LONGITUDE: 125 16 18 W
ELEVATION: 152 Metres

NORTHING: 5554475
EASTING: 337610

LOCATION ACCURACY: Within 500M

COMMENTS: Mineralized outcrop, 3 kilometres south from Morte Lake, 4.75 kilometres west-northwest from the village of Heriot Bay (Assessment Report 5076).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite
COMMENTS: Mineralization is hosted in fractures.
ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium-grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Flat is comprised of chalcocite mineralization (similar to Pomeroy 2, 092K 119) in east trending fractures within chloritic amygdaloidal andesite flows.

BIBLIOGRAPHY

EMPR AR *1914-K381-K385; *1916-K346,K347; *1918-K270-K274; 1919-N217, N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1118
REPORT: RGEN0100

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EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

DATE CODED: 1989/05/03
DATE REVISED: / /

CODED BY: GO
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 105**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **COPPER BELL 1,2**, COPPER QUEEN

STATUS: Developed Prospect

Open Pit

MINING DIVISION: Nanaimo

REGIONS: British Columbia

NTS MAP: 092K03W

BC MAP:

LATITUDE: 50 07 22 N

LONGITUDE: 125 15 36 W

ELEVATION: 140 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Pit, 3.25 kilometres south-southeast of Morte Lake, 4 kilometres north-northwest from the village of Heriot Bay (Assessment Report 5076).

UTM ZONE: 10 (NAD 83)

NORTHING: 5554727

EASTING: 338453

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite

ASSOCIATED: Quartz

ALTERATION: Chlorite

ALTERATION TYPE: Chloritic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein

CLASSIFICATION: Volcanogenic Hydrothermal

Epigenetic

TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: COPPER BELL 1,2

REPORT ON: Y

CATEGORY: Indicated

QUANTITY: 101595 Tonnes

YEAR: 1973

COMMODITY

Copper

GRADE

2.5500

Per cent

COMMENTS: Reserves based on trenching and drill samples.

REFERENCE: Property File - see 092K 071, Sheppard, 1973.

CAPSULE GEOLOGY

The Copper Bell 1,2 occurrence is located 3.25 kilometres south-southeast from Morte Lake and 4 kilometres north-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the

CAPSULE GEOLOGY

CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Bell is comprised of chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. Quartz veining is associated with the fractures.

Two hundred and seventy-two tonnes of ore were mined from a surface pit.

Indicated reserves are 101,595 tonnes grading 2.55 per cent copper. The reserves are based on trenching and drill samples (Property File - see 092K 071, Sheppard, 1973).

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1971-314; 1972-285; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property, Bacon, W.R. (1953): Preliminary Report for Department of Mines' Production; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

DATE CODED: 1989/04/28
DATE REVISED: 1997/07/31

CODED BY: GO
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 106**

NATIONAL MINERAL INVENTORY:

NAME(S): **DON**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K01E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 03 46 N
LONGITUDE: 124 03 12 W
ELEVATION: 450 Metres

NORTHING: 5546142
EASTING: 424610

LOCATION ACCURACY: Within 500M

COMMENTS: The Don showing is exposed in four places, three within and immediately adjacent to McConnell Creek (Lower, Star and Upper). The fourth (called South) is on a steep slope 450 metres south of McConnell Creek. Elevations range from 420 to 705 metres. Location of occurrences is for the Lower Don exposure, from Plate 2, Assessment Report 15167.

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite
ASSOCIATED: Pyrite Quartz Sericite
ALTERATION: Quartz Sericite
ALTERATION TYPE: Sericitic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stockwork
CLASSIFICATION: Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Tertiary			Unnamed/Unknown Informal
Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Feldspar Porphyry Granite
Biotite Porphyry Granite
Granodiorite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1985
SAMPLE TYPE:	Chip		
COMMODITY		GRADE	
Copper		0.2300	Per cent
Molybdenum		0.1040	Per cent
COMMENTS:	Most representative sample. Chip over 10 metres at Lower Don.		
REFERENCE:	Assessment Report 15167.		

CAPSULE GEOLOGY

The Don showing is located on McConnell Creek which drains westward into the Britain River. The area is underlain by a composite biotite porphyry granite stock of probable Lower Tertiary age, cored by a quartz feldspar porphyry granite phase. The stock intrudes granodiorites and diorites of the Cretaceous Coast Plutonic Complex. The quartz feldspar porphyry granite phase of the stock hosts the best molybdenum/copper mineralization and strongest alteration. Mineralization consists of widespread, locally significant, but generally low grade molybdenite, chalcopyrite and pyrite. The most widespread and common alteration types are sericite and quartz veinlets.

A well defined east trending fracture zone along McConnell Creek may have controlled the emplacement of the intrusion and the mineralization as three of the four exposures are located within and immediately adjacent to the creek (Lower, Star and Upper). The fourth (called South) is on a steep slope 450 metres south of McConnell Creek

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1122
REPORT: RGEN0100

CAPSULE GEOLOGY

in an east trending fracture zone that parallels the creek.
A representative chip sample over 10 metres at the Lower exposure
assayed 0.104 per cent molybdenum and 0.230 per cent copper (Assess-
ment Report 15167).

BIBLIOGRAPHY

EMPR ASS RPT *15167
GSC MAP 1386A
GSC OF 480

DATE CODED: 1988/11/16
DATE REVISED: / /

CODED BY: SED
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 107**

NATIONAL MINERAL INVENTORY:

NAME(S): **PLATO, JOY 2**

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 38 N
LONGITUDE: 125 16 44 W
ELEVATION: 75 Metres

NORTHING: 5564527
EASTING: 337401

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the eastern shore of Saxon Lake about 3.5 kilometres southeast of Granite Bay.

COMMODITIES: Gold Silver Zinc Copper

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: VEIN

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1926

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver	10.2900	Grams per tonne
Gold	51.4300	Grams per tonne
Zinc	1.0000	Per cent

COMMENTS: Sample across 30 centimetres.

REFERENCE: Minister of Mines Annual Report 1926.

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A pyritic quartz vein from 5 to 45 centimetres wide, strikes 160 degrees and dips 80 degrees. The vein cuts andesite and can be traced for about 100 metres. Two shafts, considerable open cutting, trenching and stripping were done on the prospect prior to 1911. A sample across 30 centimetres assayed 51.43 grams per tonne gold, 10.29 grams per tonne silver and 1 per cent zinc. Another sample over 30 centimetres assayed 926 grams per tonne gold and 103 grams per tonne silver (Minister of Mines Annual Report 1926).

A shear containing pyrite, pyrrhotite and traces of chalcopyrite were examined in 1984 (Assessment Report 12467).

BIBLIOGRAPHY

EMPR AR *1926-313
EMPR ASS RPT *10357, *12467
EMPR BULL 23; 40
EMPR EXPL 1981-270; 1984-236; 1987-C218
GSC MAP 120A; 1386A
GSC MEM 23, p. 146

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1124
REPORT: RGEN0100

BIBLIOGRAPHY

GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A,
pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1989/05/12
DATE REVISED: 1989/05/19

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 108**

NATIONAL MINERAL INVENTORY: 092K3 Cu6

NAME(S): **GOWLAND ISLAND**, TRUE BLUE

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 04 29 N
LONGITUDE: 125 14 05 W
ELEVATION: 60 Metres

NORTHING: 5549331
EASTING: 340099

LOCATION ACCURACY: Within 500M

COMMENTS: Location from description Geological Survey of Canada Memoir 23,
page 127. Centre of Gowland Island.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Replacement

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE: GROUP
Upper Triassic Vancouver

FORMATION
Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Chlorite Schist

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

On Gowland Island, in Gowland Harbour of Quadra (formerly Valdes) Island, a tunnel was driven for 37 metres prior to 1913. Within this tunnel a shaft 6 metres deep and a raise of 4.6 metres was made. The workings followed a zone along which Upper Triassic Karmutsen Formation volcanics are sheared into a chlorite schist which contains a few scattered grains of chalcocite.

BIBLIOGRAPHY

EMPR AR 1906-203
GSC MAP 1386A
GSC MEM *23, p. 127
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1988/12/12

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 109**

NATIONAL MINERAL INVENTORY:

NAME(S): **HUGO**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 29 N
LONGITUDE: 125 21 10 W
ELEVATION: Metres

NORTHING: 5557001
EASTING: 331887

LOCATION ACCURACY: Within 1 KM

COMMENTS: From description, Geological Survey of Canada Memoir 23.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite Bornite

ASSOCIATED: Quartz

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Volcanic Rock

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The Hugo, just south of Seymour Narrows on Quadra Island, contains an irregular vein of quartz which has a maximum width of 15 centimetres. The quartz is arranged in radiating crystal aggregates, between the crystals of which are small grains of chalcocite and bornite (Geological Survey of Canada Memoir 23, page 128). The Geological Survey of Canada Open File Map 480 shows the area to be underlain by Upper Triassic Karmutsen Formation volcanic rocks.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM *23, p. 128
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/31

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 110**

NATIONAL MINERAL INVENTORY:

NAME(S): **HERIOT ISLAND**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 42 N
LONGITUDE: 125 12 59 W
ELEVATION: 30 Metres

NORTHING: 5553399
EASTING: 341533

LOCATION ACCURACY: Within 500M

COMMENTS: On the northwest corner of Heriot Island, located in Heriot Bay
(Geological Survey of Canada Memoir 23, page 128).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Copper
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

Heriot Island is underlain by amygdaloidal andesitic flows of the Upper Triassic Karmutsen Formation. The occurrence is comprised of native copper grains in amygdaloidal andesite, the amygdules of which are otherwise filled with calcite, quartz and epidote.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM *23, p. 128
GSC OF 480
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 111**

NATIONAL MINERAL INVENTORY:

NAME(S): **ANACONDA**, TED, WFP,
NAT, QUAD

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E 092K03W
BC MAP:
LATITUDE: 50 11 08 N
LONGITUDE: 125 15 04 W
ELEVATION: 50 Metres

MINING DIVISION: Nanaimo
UTM ZONE: 10 (NAD 83)

LOCATION ACCURACY: Within 500M

NORTHING: 5561687
EASTING: 339299

COMMENTS: The Anaconda occurrence reportedly adjoins the "Guilher" claim (read Geiler, Crown Grant L.1369, Annual Report 1911, page 194) and is located on the shore of a small lake (Annual Report 1913, page 284). The Geiler appears on up-to-date claim maps about 600 metres west of Stramberg Lake. Geological Survey of Canada Summary Report 1913, page 74 reports the Anaconda as being part of the Condor group while Minister of Mines Annual Report 1913, page 284, includes it with the Bird group of mineral claims. The showings are probably on the lower half of Stramberg Lake's western margin, or possibly along the southwest corner. The Ted crown grants (Lots 1463 and 1502) now cover the land adjacent and south to southwest of Stramberg Lake and may include the Anaconda showing. Several companies held claims from the early 1970's to present, possibly covering the occurrence, but reporting no work in the occurrence area.

COMMODITIES: Gold Silver Copper

MINERALS

SIGNIFICANT: Pyrrhotite Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Garnet Epidote
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein
CLASSIFICATION: Skarn Hydrothermal Epigenetic
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Andesite
Intrusive Rock

HOSTROCK COMMENTS: Mineralization occurs at contact of limestone and andesite. Intrusive rocks occur 180 metres west.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1913
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 6.8600 Grams per tonne
Gold 6.8600 Grams per tonne

COMMENTS: From a 0.6 metre chip of pyritic matter taken along limestone-andesite contact.

REFERENCE: Minister of Mines Annual Report 1913, pages 284-286.

CAPSULE GEOLOGY

The area is underlain by two Upper Triassic Vancouver Group formations consisting of Karmutsen volcanic rocks overlain on their north-eastern margin by a northwest trending belt of Quatsino limestone, known historically as the "lime-belt". These are in fault

CAPSULE GEOLOGY

and/or intrusive contact to the northeast with Jurassic to Tertiary intrusive rocks of the Coast Plutonic Complex.

The Anaconda occurrence is probably located along the lower half of Stramberg Lake's western shore about 180 metres southwest of the intrusive contact.

A fractured mineralized zone, 4 to 6 metres in width, occurs along the contact between limestone and finely textured, greenish andesitic rocks, the contact having a general strike of about 125 degrees. Throughout this zone, the volcanic rocks are much altered and iron-stained, and include, in places, some disseminated pyrrhotite, pyrite, chalcopyrite, garnet, epidote and other silicates. Quartz also occurs within this zone, either irregularly distributed or in the form of narrow veinlets up to 15 to 20 centimetres in thickness, the quartz of the veinlets being characterized by long, interlacing, interlocking crystals (Geological Survey of Canada Summary Report 1913, page 74-75).

A 0.6 metre sample of pyritic matter taken along the limestone-andesite contact assayed 6.86 grams per tonne gold and 6.86 grams per tonne silver (Minister of Mines Annual Report 1913, pages 284-286).

BIBLIOGRAPHY

- EMPR AR 1911-194; *1913-284,286
- EMPR ASS RPT 3100, 3167, 5680, 10538, 16142, 16143
- EMPR BULL 23; 40
- EMPR PF (Several Reports on the Contact Group by E.P. Sheppard, dated 1970, 1971, 1972 and 1973)
- GSC MAP 120A; 1386A
- GSC MEM 23, p. 146
- GSC OF 463; 480
- GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23,41-44; 73-1A, pp. 42,43
- GSC SUM RPT *1913, p. 74

DATE CODED: 1989/04/29
DATE REVISED: 1989/04/29

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 112**

NATIONAL MINERAL INVENTORY:

NAME(S): **SHAMROCK (L.416)**, SHAMROCK EXTENSION, INLET,
 CUBA SILVER, SHAMROCK CREEK, POISON CREEK,
 LOUGHBOROUGH

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092K12E
 BC MAP:
 LATITUDE: 50 38 01 N
 LONGITUDE: 125 31 34 W
 ELEVATION: 100 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: Location of Shamrock adit on Map 4a, Assessment Report 17161.
 The Inlet showing adit is located 360 metres southwest of the
 Shamrock adit. The Shamrock Extension adit is located 460 metres
 southeast of the Shamrock adit.

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5612128
 EASTING: 321363

COMMODITIES: Silver Copper Zinc Gold

MINERALS

SIGNIFICANT: Pyrite Pyrrhotite Chalcopyrite
 ALTERATION: Limonite Chlorite
 ALTERATION TYPE: Chloritic Oxidation
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Podiform Massive Disseminated
 CLASSIFICATION: Igneous-contact Replacement

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Argillite
 Chlorite Schist
 Limestone
 Diorite
 Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 TERRANE: Wrangell
 METAMORPHIC TYPE: Contact Plutonic Rocks RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: ADIT REPORT ON: N
 CATEGORY: Assay/analysis YEAR: 1986
 SAMPLE TYPE: Grab

<u>COMMODITY</u>	<u>GRADE</u>	
Silver	44.7000	Grams per tonne
Copper	3.0248	Per cent
Zinc	0.0408	Per cent

 REFERENCE: Assessment Report 17161.

CAPSULE GEOLOGY

The Shamrock (L.416) prospect is located on the eastern shore of Loughborough Inlet between Shamrock and Poison creeks. This occurrence encompasses 3, pre-1900 adits called the Shamrock, Shamrock Extension, and Inlet Showing.
 The Loughborough Inlet area is underlain by northwest elongated intrusive rocks principally diorite to granodiorite, of the Jurassic to Cretaceous Coast Plutonic Complex. Contained within the intrusives are long narrow belts of metasedimentary and metavolcanic rocks. Recent exploration has identified a previously undiscovered belt on and around the Shamrock (L.416) prospect. Here, the metasedimentary and metavolcanic rocks are correlated with the Upper Triassic Karmutsen Formation. These rocks form a belt 250 metres wide which consists of parallel 50 metre wide argillite-limestone-chlorite schist bands separated by a 150 metre wide transitional zone of diorite. The belt strikes 130 to 140 degrees and has been traced for approximately one kilometre.

CAPSULE GEOLOGY

Mineralization at each of the 3 adits is similar, consisting of pyrite, pyrrhotite and chalcopyrite developed as narrow seams and lenses or as disseminations within fractured, chloritized argillite. Each adit was driven to test fractured, pyritized, limonite stained schist developed at the contact with diorite. A best assay of 3.0248 per cent copper, 44.7 grams per tonne silver, and 0.0408 per cent zinc was obtained, for a grab sample from the dump of the Shamrock adit (Assessment Report 17161). Gold was not detected in the sample, possibly due to a high detection level of 3 grams per tonne. It was reported in the Geologic Survey of Canada Memoir 23 that samples from the workings returned gold values of up to 17 dollars per tonne. This represents a value of 20.568 grams per tonne gold based on a price of 25 dollars per ounce in 1913.

BIBLIOGRAPHY

EMPR AR 1899-806; 1901-1232A
EMPR ASS RPT *17161
EMPR PF (Prospectus (1987), Stina Resources Ltd.)
GSC MAP 65A; 169A; 1386A
GSC MEM *23, pp. 138,139
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/02/14

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 113**

NATIONAL MINERAL INVENTORY:

NAME(S): **COPPER VALLEY**, DAVID

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 21 N
LONGITUDE: 125 15 36 W
ELEVATION: 160 Metres

NORTHING: 5556549
EASTING: 338508

LOCATION ACCURACY: Within 500M

COMMENTS: Located on Prince Stewart Mines' lapsed Copper Valley 4 and David 6 claims, situated about halfway between Morte Lake and Hyacinthe Bay (Assessment Reports 3100, 3167).

COMMODITIES: Copper Gold Silver

MINERALS

SIGNIFICANT: Chalcocite Copper
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Layered
CLASSIFICATION: Volcanogenic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1970
SAMPLE TYPE: Bulk Sample

<u>COMMODITY</u>	<u>GRADE</u>
Copper	2.0000 Per cent

REFERENCE: Sheppard, E.P., (1972): Geological Report on the Contact claims.

CAPSULE GEOLOGY

The Copper Valley showing occurs about halfway along the stream valley, between Morte Lake and Hyacinthe Bay on the southwestern half of Quadra Island.

This half of the island lies within the Insular Belt and is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation, Vancouver Group. These are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group.

Mineralization on the Copper Valley occurrence consists mainly of two layers of chalcocite, up to 1.2 metres thick, occurring within andesite. Occasional bornite and malachite were observed on a cliff side. Bulldozing was carried out along a length of 120 metres at the cliff base that carried copper mineralization. Over 7.3 tonnes of ore were selected and shipped for leaching. This shipment assayed 2.0 per cent copper (Sheppard, 1970).

One of several holes drilled in 1970 in the Copper Valley 4 claim cut andesite carrying varying amounts of chalcocite. One 4.9 metre length assayed about 1.3 per cent copper per tonne (Sheppard, 1972). Another hole intersected flecks of native copper at the 61 metre level.

A chip sample on the adjoining David 1 claim, taken from a 1.2 by 1.8 metre area, assayed 3.27 per cent copper, 0.34 grams per tonne gold and 6.86 grams per tonne silver (Sheppard, 1972).

BIBLIOGRAPHY

EMPR ASS RPT 3100, 3167
EMPR BULL 23; 40
EMPR GEM 1970-281; 1971-313

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1133
REPORT: RGEN0100

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EMPR PF (*Sheppard, E.P., (1970,1972): Geological Report on the Contact Claims, Quadra Island, Prince Stewart Mines Ltd.; Prospectus, Prince Stewart Mines, April 19, 1971; Sheppard, E.P., (1973): Geological Report on the Pomeroy Group and Contact Group, Quadra Island, Prince Stewart Mines Ltd.)
GSC MAP 120A; 1386A
GSC OF 463; 480
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1989/05/03
DATE REVISED: 1989/05/12

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 114**

NATIONAL MINERAL INVENTORY:

NAME(S): **BAVENO**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 16 08 N
LONGITUDE: 124 48 11 W
ELEVATION: 10 Metres

NORTHING: 5570083
EASTING: 371506

LOCATION ACCURACY: Within 500M

COMMENTS: Located in Walsh Cove on the eastern shore of West Redonda Island
(Geological Survey of Canada Memoir 23, page 142).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: "Granite"

ALTERATION TYPE: Argillic Propylitic

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Industrial Min.

TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Quartz Monzonite
Biotite Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area appears to be underlain by Juro-Cretaceous Coast Plutonic Complex quartz monzonite. The Baveno is comprised of a coarse-grained biotite granite. Compositionally, the orthoclase is a rich pink colour and is more abundant than plagioclase. The plagioclase ranges from albite to oligoclase in composition and is greyish-white. In thin section the orthoclase is very turbid due to kaolinization, while the plagioclase, which is much fresher, is partially altered to sericite and epidote. The biotite is generally altered to a chlorite which polarizes in a deep blue colour, the chloritization having been associated by the separation of a little secondary magnetite. Quartz is abundant with minor micrographic intergrowths with orthoclase. Crystals of sphene, a few of which are visible to the naked eye, are relatively abundant, usually approximating their habitual wedge-shaped outlines. A few grains of epidote, some of which are so distinctly pleochroic, approach allanite in composition. Two small crystals of zircon, a few short needle-like prisms of apatite and a small grain of pyrite were also observed in thin section.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM *23, pp. 142,143
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1136
REPORT: RGEN0100

CAPSULE GEOLOGY

(Geological Survey of Canada Summary Report 1913).

BIBLIOGRAPHY

EMPR AR *1913-285,286
EMPR ASS RPT 16142, 16143, 17797
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A,
pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1989/05/09
DATE REVISED: 1989/05/16

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 116**

NATIONAL MINERAL INVENTORY: 092K3 Cu1

NAME(S): **AJAX**, WHYHO, WANDERER

STATUS: Past Producer
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

LATITUDE: 50 11 19 N
LONGITUDE: 125 18 31 W
ELEVATION: 280 Metres

UTM ZONE: 10 (NAD 83)

NORTHING: 5562153
EASTING: 335205

LOCATION ACCURACY: Within 1 KM

COMMENTS: Reported to be situated to the north of Deepwater Bay (or inland from its northern slope) about 1.6 kilometres from the shore at about 280 metres elevation (Minister of Mines Annual Report 1907 and Geological Survey of Canada Memoir 23). Exact location is not discernible from the description.
Worked as the Ajax in the first decade, the Ajax group was later restaked on the Wanderer group (Minister of Mines Annual Report 1920). The Wanderer group was reported to be later restaked as the Whyo claim (Minister of Mines Annual Report 1926). The Ajax and Whyo reports have the same geological descriptions while the Wanderer (092K 009) is notably different. However, it is possible that they are the same occurrence.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite Bornite
ASSOCIATED: Calcite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I06 Cu±Ag quartz veins

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Basalt

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. To the east these are interbedded with, and overlain by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A shear zone up to 60 metres in width strikes 135 degrees into a hill slope consisting of amygdaloidal basalts (Minister of Mines Annual Report 1927). Other reports indicate a strike of about 080 degrees (Geological Survey of Canada Memoir 23).

Lenses and small veins of calcite hosting chalcocite and bornite occur within the shear. About 30 tonnes of ore were taken out prior to 1902, assaying over 25 per cent copper. Values of gold and silver are reported to be low.

BIBLIOGRAPHY

EMPR AR 1899-807; 1902-236; 1907-160; 1920-216; 1921-224; 1922-240;
1926-314; *1927-352; 1928-382; *1930-306
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM *23, p. 128
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1138
REPORT: RGEN0100

BIBLIOGRAPHY

GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/12

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 117**

NATIONAL MINERAL INVENTORY:

NAME(S): **UNION**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K12E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 44 43 N
LONGITUDE: 125 43 19 W
ELEVATION: 1 Metres

NORTHING: 5625033
EASTING: 307973

LOCATION ACCURACY: Within 500M

COMMENTS: On Knight Inlet, opposite Adeane Point (Minister of Mines Annual Report 1919, page N212).

COMMODITIES: Gold Silver

MINERALS

SIGNIFICANT: Pyrite
ASSOCIATED: Quartz
ALTERATION: Epidote
ALTERATION TYPE: Epidote
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Biotite Schist
Phyllite
Porphyritic Greenstone
Quartzite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
Plutonic Rocks
RELATIONSHIP: Syn-mineralization GRADE:

CAPSULE GEOLOGY

The Union showing is located on the northern shore of Knight Inlet opposite Adeane Point. The area is underlain by a belt of Upper Triassic Karmutsen Formation metamorphosed volcanic rocks contained in the Jurassic to Cretaceous Coast Plutonic Complex. The lithologies consist of thinly layered, biotite schist or phyllite, porphyritic greenstone and thin intercalations of light-weathering quartzite. The greenstone is commonly schistose and heavily epidotized in narrow zones.

The mineralization is composed of cubes of pyrite disseminated in quartz veins. Trace gold and silver was identified from assay samples (Minister of Mines Annual Report 1919, page 213).

BIBLIOGRAPHY

EMPR AR 1874-36; 1898-1145,1146; 1899-807,808; *1900-995; 1901-1103, 1104; 1902-236; 1903-205; 1904-248; *1919-212; 1920-225; 1925-225; 1926-309
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/20

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 118**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **BUTTE** CLIFF 2

STATUS: Developed Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

Underground

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 06 11 N
LONGITUDE: 125 16 08 W
ELEVATION: 84 Metres

NORTHING: 5552554
EASTING: 337751

LOCATION ACCURACY: Within 500M

COMMENTS: Trenches (adit), 4 kilometres west from the village of Heriot Bay,
5 kilometres south from Morte Lake (Assessment Report 5076).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcocite
COMMENTS: Mineralization is hosted in fractures.
ALTERATION: Chlorite
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: BUTTE

REPORT ON: Y

CATEGORY: Inferred	YEAR: 1973
QUANTITY: 36284 Tonnes	
COMMODITY: Copper	GRADE: 1.4000 Per cent

COMMENTS: Reserves based on trenching.
REFERENCE: Property File - see Pomeroy 3,4 (092K 071), Sheppard, 1973.

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Butte is comprised of disseminated chalcocite mineralization within fractured, chloritic amygdaloidal andesite flows.

Trenching has resulted in inferred reserves of 36,284 tonnes

CAPSULE GEOLOGY

grading 1.4 per cent copper (see Pomeroy 3,4 (092K 071), Report by Sheppard, 1973).

BIBLIOGRAPHY

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218;
1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-
A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the
Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of
Examination and Estimates of Production on the Quadra Mining
Company Limited Property; Bacon, W.R. (1953): Preliminary Report
for Department of Mines' Information; 092K012; 092K101-Sheppard,
E.P. (1972): Geological Report on the Contact Claims; 092K
General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of
British Columbia, Vol. 1: Vancouver Island, p. 168

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/03

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 119**

NATIONAL MINERAL INVENTORY: 092K3 Cu3

NAME(S): **POMEROY 2**, COPPEROPOLIS, EVELYN 3

STATUS: Developed Prospect

MINING DIVISION: Nanaimo

REGIONS: British Columbia

NTS MAP: 092K03W

BC MAP:

LATITUDE: 50 07 07 N

LONGITUDE: 125 16 27 W

ELEVATION: 122 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: Trenches, 3 kilometres south of Morte Lake, 4.5 kilometres west-northwest from the village of Heriot Bay (Assessment Report 5076).

UTM ZONE: 10 (NAD 83)

NORTHING: 5554295

EASTING: 337426

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcocite Copper Chalcopyrite Pyrite

ASSOCIATED: Quartz

ALTERATION: Chlorite Malachite

ALTERATION TYPE: Chloritic Oxidation

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Vein

CLASSIFICATION: Volcanogenic Hydrothermal Epigenetic

TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular

TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: POMEROY 2 SOUTH

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1973

QUANTITY: 22677 Tonnes

COMMODITY

GRADE

Copper

2.1100

Per cent

COMMENTS: Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber.

REFERENCE: SMF May 7, 1973-Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973.

ORE ZONE: POMEROY 2 NORTH

REPORT ON: Y

CATEGORY: Indicated

YEAR: 1973

QUANTITY: 4535 Tonnes

COMMODITY

GRADE

Copper

2.7000

Per cent

COMMENTS: Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber.

REFERENCE: SMF May 7, 1973-Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973.

CAPSULE GEOLOGY

The Pomeroy 2 occurrence is located 3 kilometres south of Morte Lake and 4.5 kilometres west-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators.

CAPSULE GEOLOGY

Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy 2 is comprised of two zones, 180 metres apart, of disseminated native copper, chalcopyrite and pyrite mineralization in fractured chloritic amygdaloidal andesite flows. The fracturing is developed in a prominent east trending direction and contains quartz veinlets mineralized with chalcocite. Malachite is prevalent as an oxidation product.

Indicated reserves at Pomeroy 2 South are 22,677 tonnes grading 2.11 per cent copper; indicated reserves at Pomeroy 2 North are 4535 tonnes grading 2.7 per cent copper. Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973).

BIBLIOGRAPHY

- EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; Holland, S.S. (1973): Limited Production Permit - Quadra Mining Co. Ltd. letter; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

DATE CODED: 1985/07/24
DATE REVISED: 1997/05/30

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1144
REPORT: RGEN0100

MINFILE NUMBER: **092K 120**

NATIONAL MINERAL INVENTORY:

NAME(S): **SQUIRREL COVE**

MINING DIVISION: Nanaimo
Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5555181
EASTING: 361910

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K02W
BC MAP:

LATITUDE: 50 07 58 N
LONGITUDE: 124 55 56 W
ELEVATION: 10 Metres

LOCATION ACCURACY: Within 1 KM

COMMENTS: On the southern shore of Squirrel Cove, east side of Cortes Island
(Geological Survey of Canada Memoir 23, page 142).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown
COMMENTS: "Pink granite" reported but area mapped as quartz diorite.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Magmatic Industrial Min.
TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Granite

HOSTROCK COMMENTS: Granitic rocks are dated as Late Jurassic in Johnstone Strait area
(Geological Survey of Canada Open File 480, Notes, page 3).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fjord Ranges (Southern)

CAPSULE GEOLOGY

A "pink granite" is reported to occur on the southern shore of Squirrel Cove, on the east side of Coretz Island (Geological Survey of Canada Memoir 23, page 143). The area is underlain by quartz diorite of the Late Jurassic to Eocene Coast Plutonic Complex (Geological Survey of Canada Open File 480).

BIBLIOGRAPHY

EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/13
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 120**

MINFILE NUMBER: **092K 121**

NATIONAL MINERAL INVENTORY:

NAME(S): **STEMWINDER**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 13 45 N
LONGITUDE: 125 19 31 W
ELEVATION: 175 Metres

NORTHING: 5566698
EASTING: 334156

LOCATION ACCURACY: Within 1 KM

COMMENTS: Part of the Nickel Plate (092K 095). Located west-southwest of Granite Bay (Map 120A in Geological Survey of Canada Summary Report 1913).

COMMODITIES: Iron Copper

MINERALS

SIGNIFICANT: Magnetite Pyrrhotite
COMMENTS: Metamorphic silicates reported.

ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn Industrial Min.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Limestone
Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

According to the Geological Survey of Canada Summary Report 1913 the Stemwinder showing consists of a 30 centimetre band of dominantly pyrrhotite overlain by a 45 to 60 centimetre band of metamorphic silicates. The ore material occurs between limestone and finely textured andesite. The material is exposed for a distance of 3 to 5 metres along surface. No assays were reported.

The British Columbia Department of Mines Annual Report for 1911 describes the Stemwinder showing as a magnetite deposit from 2.4 to 3 metres in width. The magnetite is reported to contain values in gold and copper.

BIBLIOGRAPHY

EMPR AR *1911-194
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT *1913, p. 69

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/12

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 122**

NATIONAL MINERAL INVENTORY:

NAME(S): **BIG ANDY**, PURCELL POINT, BEAUT

MINING DIVISION: Vancouver

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092K15E
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 47 24 N
 LONGITUDE: 124 49 45 W
 ELEVATION: 1350 Metres

NORTHING: 5628067
 EASTING: 371074

LOCATION ACCURACY: Within 500M

COMMENTS: Location of sulphide zone, Galleon Mining Limited Prospectus.
 The Big Andy showing is described as being located on the east side of Bute Inlet, 6.4 kilometres east-southeast of Purcell Point, at approximately 1219 metres elevation.

COMMODITIES: Copper Zinc Lead Gold

MINERALS

SIGNIFICANT: Chalcopyrite Sphalerite Pyrrhotite Pyrite Galena
 COMMENTS: Minor sphalerite.
 ALTERATION: Quartz Clay Carbonate Chlorite Pyrite
 Barite
 ALTERATION TYPE: Silicific'n Pyrite
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Stratabound Shear
 CLASSIFICATION: Igneous-contact Replacement
 TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
 DIMENSION: 100 x 1 Metres STRIKE/DIP: G04 Besshi massive sulphide Cu-Zn
 COMMENTS: The sulphide zone dips are 70 to 85 degrees. TREND/PLUNGE: /

HOST ROCK

DOMINANT HOSTROCK: Metamorphic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Paleozoic-Mesozoic	Gambier	Undefined Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Argillite
 Phyllite
 Chert
 Siltstone

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 TERRANE: Wrangell Plutonic Rocks
 METAMORPHIC TYPE: Contact RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: TRENCHES REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1990
 SAMPLE TYPE: Chip

<u>COMMODITY</u>	<u>GRADE</u>	
Gold	0.5800	Grams per tonne
Copper	1.8000	Per cent
Lead	0.0400	Per cent
Zinc	0.3000	Per cent

COMMENTS: The weighted average of continuous chip sampling across 1.1 metres true width.
 REFERENCE: Assessment Report 21236.

CAPSULE GEOLOGY

The Big Andy prospect is described as being located on the east side of Bute Inlet, 6.4 kilometres east-southeast of Purcell Point, at approximately 1219 metres elevation.

The earliest record of mineral exploration in the Upper Bute Inlet area was in 1967 by Rio Tinto Canadian Exploration Ltd. who explored a porphyry-style copper occurrence northeast of the confluence of Bishop Creek with Southgate River. Swiss Aluminum Mining Co. of Canada Ltd. explored the same area in 1971. Low-grade copper mineralization related to a felsic granitoid plug was outlined in the area but the claims were allowed to lapse. Hecla Operating Company explored a stratiform polymetallic target on the east side of

CAPSULE GEOLOGY

Bute Inlet in 1973. In 1989, Slumach Jackson Mines Ltd. staked a claim group north of Southgate River on what Mustang Resources Inc. reported was staked on a high grade gold mine in the 1700s and 1800s. In 1991 and 1992, Galleon Mining Limited conducted sampling, geological mapping, geophysical surveys and trenching.

The area is regionally underlain by the Jurassic to Cretaceous Coast Plutonic Complex, composed of foliated and non-foliated granodiorite, granite and quartz diorite intrusions. These intrusions are flanked by older Paleozoic and/or Triassic age sedimentary and volcanic strata, largely as roof pendants composed of amphibolite, gneiss, schist, quartzite, limestone and andesite. The regional structural trend is northwest.

The oldest rocks in the area is a complex of Paleozoic or older garnetiferous amphibolite, schlieren gneiss, biotite hornblende schist, medium-grained diorite and rare hornblendite, which are preserved in northwest trending belts in the Coast Plutonic Complex. Foliations usually parallel contacts. Metavolcanic and metasedimentary rocks consist of porphyritic andesite, micaceous quartzite, biotite schist, phyllite, siltstone, argillite and minor impure limestone of the Cretaceous Gambier Group. These rocks are contained within diorite and granodiorite of the Coast Plutonic Complex.

The Big Andy zone consists of a single, known, enclosed sulphide lens within structurally complex phyllite, argillite and minor chert of the Gambier Group. Exposed mineralization is confined to a variably sheared and silicified bedding plane dipping 70 to 85 degrees northeast. The sulphide lens was exposed by five trenches in 1990.

Pyrite, chalcopyrite, pyrrhotite, sphalerite and galena occur in a gangue of quartz, clay, carbonate, chlorite and rare barite. The sulphides are massive in appearance. Wallrock alteration consists of variable silicification and pyritization, extending up to 5 metres and are deeply weathered forming gossans. The sulphides have been traced for 100 metres along a strike of 120 degrees.

In 1990, weighted averages of continuous chip sampling across the sulphide lens yielded up to 1.80 per cent copper, 0.30 per cent zinc, 0.04 per cent lead and 0.58 gram per tonne gold across a true width of 1.1 metres (Assessment Report 21236). Individual samples yielded up to 7.40 per cent copper, 0.90 per cent zinc, 0.09 per cent lead and 1.83 grams per tonne gold across 0.20 metre (Assessment Report 21236). In 1991, the best weighted averages of continuous chip sampling across the sulphide lens yielded up to 3.38 per cent copper, 0.89 per cent zinc, 0.03 per cent lead and 1.51 grams per tonne gold across a true width of 1.48 metres (Assessment Report 22178). From this weighted average, sample 915731113 yielded up to 5.31 per cent copper, 1.40 per cent zinc, 0.06 per cent lead and 2.30 grams per tonne gold across 64 centimetres (Assessment Report 22178).

BIBLIOGRAPHY

EMPR ASS RPT *21236, *22178
EMPR GEM *1973-254
EMPR OF 1999-2
EMPR PF (Aurum Geological Consultants Inc. (1991): Summary Report on the Bute Inlet Property in Galleon Mining Limited Prospectus, July 26, 1991)
GSC MAP 1386A
GSC OF 480, 2039
GCNL #111(June 9), 1992

DATE CODED: 1985/07/24
DATE REVISED: 1997/07/31

CODED BY: GSB
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 123**

NATIONAL MINERAL INVENTORY:

NAME(S): **FS STRATIFORM**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 57 N
LONGITUDE: 125 23 03 W
ELEVATION: 259 Metres

NORTHING: 5559790
EASTING: 329731

LOCATION ACCURACY: Within 500M

COMMENTS: Location of FS Stratiform zone on map in Assessment Report 4179.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Bornite
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Disseminated
CLASSIFICATION: Sedimentary Volcanogenic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Limestone
Limy Sediment/Sedimentary
Pillow Flow
Amygdaloidal Volcanic Flow

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The FS showing is located approximately 18 kilometres northwest of Campbell River on the east coast of Vancouver Island, immediately west of Brown Bay. The area is underlain by a very thick gently dipping to flat-lying sequence of Upper Triassic submarine volcanic flows of the Karmutsen Formation. Locally minor interflow sediments occur.

A small, 6 metre wide north trending limestone-filled channel occurs at the base of a pillowed flow; the maximum exposed thickness is approximately 30 centimetres. The fine-grained, fossiliferous and limy sediment contains inconspicuous, very lightly disseminated bornite mineralization. Malachite and azurite occurs along exposed surfaces and sometimes coats late fracture plane surfaces in the massive, amygdaloidal volcanic flow. Bornite/malachite mineralization also occurs elsewhere along the thin (less than 30 centimetres) fractured and brecciated base of the pillowed flow where sedimentary material is absent.

BIBLIOGRAPHY

EMPR AR 1899-807; 1901-1103,1114
EMPR ASS RPT *4179, *4823
EMPR GEM *4179, *4823, 11100
EMPR PF (Eastwood, P. (1974): Notes)
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/03/28

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 124**

NATIONAL MINERAL INVENTORY:

NAME(S): **TOWER**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K05W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 15 33 N
LONGITUDE: 125 46 29 W
ELEVATION: 526 Metres

NORTHING: 5571130
EASTING: 302229

LOCATION ACCURACY: Within 1 KM

COMMENTS: Centre of Tower 1-15 claims (Geology, Exploration and Mining 1973, page 253).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Bornite

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Epigenetic Replacement
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic
Jurassic-Cretaceous

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Volcanic Rock
Basalt
Amygdaloidal Basalt
Tuff
Granodiorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

RELATIONSHIP: Syn-mineralization

GRADE:

CAPSULE GEOLOGY

The Tower claims of 1972-73 were located approximately 15 kilometres southeast of the community of Sayward, between Provincial Highway 19 and the headwaters of Big Tree Creek. The claims are underlain by massive and amygdaloidal upper Triassic Karmutsen Formation basalts with minor interbedded tuff which has been intruded by granodiorite and quartz diorite. The intrusive rocks are part of the Jurassic to Cretaceous Coast Plutonic Complex. The volcanic rocks have been altered, fractured and locally mineralized by chalcopyrite and minor bornite within 900 metres of the intrusive contact.

BIBLIOGRAPHY

EMPR GEM 1972-286; *1973-253
GSC MAP 1386A
GSC OF 480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/20

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 125**

NATIONAL MINERAL INVENTORY:

NAME(S): **CONTACT**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 39 N
LONGITUDE: 125 15 20 W
ELEVATION: 90 Metres

NORTHING: 5562654
EASTING: 339010

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located between Granite Bay and Open Bay. Reported to adjoin the Pelican (092K 115) on the south (Geological Survey of Canada Summary Report 1913). May actually be in the vicinity of, or located on the Hindurton (L.1358) or Lond (L.1359) claims.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Epidote Garnet Amphibole Quartz
ALTERATION TYPE: Skarn Silicific'n
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive
CLASSIFICATION: Skarn
TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE

Upper Triassic
Mesozoic-Cenozoic

GROUP

Vancouver

FORMATION

Quatsino

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Limestone
Granitic Rock

HOSTROCK COMMENTS: Skarn mineralization occurs along the granite-limestone contact.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

On the Contact, skarn-type mineralization occurs along the contact of limestone and granitic intrusive rocks. The ore deposit is from 30 to 90 centimetres wide and consists dominantly of pyrrhotite with some quartz, chalcopyrite, garnet, epidote, hornblende and related silicates. At one point, four narrow parallel mineralized bands or zones occur within a thickness of 4.6 metres (Geological Survey of Canada Summary Report 1913).

BIBLIOGRAPHY

EMPR ASS RPT 16142, 16143, 17797
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1989/05/09
DATE REVISED: 1989/05/16

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 126**

NATIONAL MINERAL INVENTORY:

NAME(S): **DEER**, O.K., IN

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K05W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 19 35 N
LONGITUDE: 125 59 29 W
ELEVATION: 166 Metres

NORTHING: 5579201
EASTING: 287089

LOCATION ACCURACY: Within 1 KM

COMMENTS: Source of given information unknown. Name is found in P. Eastwood File (Property File, P. Eastwood file).

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Basalt Flow
Limestone
Shale
Pillow Lava
Pillow Breccia

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation basalt flows, minor limestone, shale, pillow lava and pillow breccia. The Deer showing has been documented as containing copper-molybdenum mineralization.

BIBLIOGRAPHY

EMPR PF (*P. Eastwood file)
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480
Falconbridge File

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/24

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 127**

NATIONAL MINERAL INVENTORY:

NAME(S): **LANA**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 17 N
LONGITUDE: 125 17 53 W
ELEVATION: 5 Metres

NORTHING: 5558362
EASTING: 335842

LOCATION ACCURACY: Within 1 KM

COMMENTS: Source of given information is unknown. The name is found in P. Eastwood's file (Property File, P. Eastwood file).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Unknown
ALTERATION TYPE: Chloritic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown
TYPE: D03 Volcanic redbed Cu

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Karmutsen	

LITHOLOGY: Amygdaloidal Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

The Lana showing contains copper mineralization which has been documented from P. Eastwood's file.

BIBLIOGRAPHY

EMPR PF (P. Eastwood file)
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 128**

NATIONAL MINERAL INVENTORY:

NAME(S): **GRANITE MOUNTAIN**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 42 49 N
LONGITUDE: 124 57 41 W
ELEVATION: 2000 Metres

NORTHING: 5619813
EASTING: 361530

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 43 kilometres up the west side of Bute Inlet
(Geological Survey of Canada Memoir 23, page 143).

COMMODITIES: Granite Dimension Stone Building Stone

MINERALS

SIGNIFICANT: Unknown

COMMENTS: "Granite"

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive

CLASSIFICATION: Magmatic Industrial Min.

TYPE: R03 Dimension stone - granite

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Jurassic-Cretaceous			Coast Plutonic Complex

LITHOLOGY: Diorite
Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

The area appears to be underlain by Juro-Cretaceous Coast Plutonic Complex diorite. The Granite Mountain is comprised chiefly of a medium-grained greyish-white biotite granite. In hand specimen the rock displays a faint gneissic texture. Microscopic examination indicates an even distribution of orthoclase and sodic plagioclase. Several orthoclase crystals are Carlsbad twinned and some of the plagioclase crystals are polysynthetically twinned with good zonal structures. A small amount of microcline is also present. The biotite is very fresh, its pleochroism ranging from very dark brown to a light straw-yellow. The quartz frequently possesses a faint undulatory extinction. Magnetite occurs in minute well-formed crystals, or in aggregates of small irregular grains. A little epidote, a few small needles of apatite and numerous small crystals of zircon complete the mineralogical composition.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM *23, p. 143
GSC OF 480

DATE CODED: 1989/05/13
DATE REVISED: 1989/05/24

CODED BY: GJP
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 129**

NATIONAL MINERAL INVENTORY:

NAME(S): **GREEN SEA BAY**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K06W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 53 N
LONGITUDE: 125 18 05 W
ELEVATION: 400 Metres

NORTHING: 5574304
EASTING: 336096

LOCATION ACCURACY: Within 1 KM

COMMENTS: Source of given information is unknown. Name is found in P. Eastwood's file (Property File, P. Eastwood file).

COMMODITIES: Molybdenum

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Assumed to be molybdenite.
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Jurassic-Cretaceous

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The area is underlain by Juro-Cretaceous Coast Plutonic Complex granodiorite. The Green Sea Bay showing is documented as containing molybdenum mineralization (P. Eastwood's file) and the mineral is assumed to be molybdenite.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 480
EMPR PF (*P. Eastwood file)

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/25

CODED BY: GSB
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 130**

NATIONAL MINERAL INVENTORY:

NAME(S): **SEA GULL**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 11 30 N
LONGITUDE: 125 15 20 W
ELEVATION: 90 Metres

NORTHING: 5562376
EASTING: 339002

LOCATION ACCURACY: Within 1 KM

COMMENTS: The Sea Gull is reported to be part of the Condor group located at its northern end. The group is said to lie south or southeast of and adjoining the Contact (092K 125), Geological Survey of Canada Summary Report 1913.

COMMODITIES: Copper Molybdenum

MINERALS

SIGNIFICANT: Pyrrhotite Chalcopyrite Molybdenite
COMMENTS: Minerals disseminated in quartz vein.
ASSOCIATED: Quartz
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated
CLASSIFICATION: Skarn Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Upper Triassic	Vancouver	Quatsino	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
Granitic Rock

HOSTROCK COMMENTS: Mineralized quartz vein occurs at the granite-limestone contact.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

The Sea Gull showing consists of an irregular mass of quartz "several feet" in width developed along the contact between granitic intrusive rock and limestone. The quartz contains some disseminated pyrrhotite and chalcopyrite as well as occasional flakes of molybdenite (Geological Survey of Canada Summary Report 1913).

BIBLIOGRAPHY

EMPR ASS RPT 16142, 16143, 17797
EMPR BULL 23; 40
GSC MAP 120A; 1386A
GSC MEM 23, 146pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT *1913, pp. 53-75

DATE CODED: 1989/05/09
DATE REVISED: 1989/05/16

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 131**

NATIONAL MINERAL INVENTORY:

NAME(S): **S, BOB**

MINING DIVISION: Nanaimo

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 09 09 N
LONGITUDE: 125 14 35 W
ELEVATION: 152 Metres

NORTHING: 5557995
EASTING: 339763

LOCATION ACCURACY: Within 500M

COMMENTS: Location from map - Assessment Report 3522.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Chalcocite Pyrite
ASSOCIATED: Quartz
ALTERATION: Malachite Azurite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Podiform
CLASSIFICATION: Hydrothermal Epigenetic

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Upper Triassic

GROUP

Vancouver

FORMATION

Karmutsen

IGNEOUS/METAMORPHIC/OTHER

LITHOLOGY: Basalt
Andesite

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell
METAMORPHIC TYPE: Regional
COMMENTS: Occurrence located near contact with the Coast Plutonic Complex.

PHYSIOGRAPHIC AREA: Georgia Depression

RELATIONSHIP: Syn-mineralization
GRADE:

INVENTORY

ORE ZONE: DUMP

REPORT ON: N

CATEGORY: Assay/analysis YEAR: 1971

SAMPLE TYPE: Grab

COMMODITY

GRADE

Copper 4.2000 Per cent

COMMENTS: Grab sample from mine dump. Gold ran 0.1 grams per tonne.

REFERENCE: Assessment Report 3522.

CAPSULE GEOLOGY

The S or Bob occurrence is located on Quadra Island approximately 2.5 kilometres west of Open Bay. The geology of the area consists of volcanic rocks of the Upper Triassic Karmutsen Formation. Some limestone of the Triassic Quatsino Formation has been reported west of this occurrence in contact with the Juro-Cretaceous Coast Plutonic Complex.

Chalcopyrite and pyrite is contained in a quartz vein which appears as a small pod. The vein is found in grey to greenish grey andesites and/or basalts with phenocrysts of feldspar.

A "mine dump" grab sample near an old working assayed 4.20 per cent copper and 0.1 grams per tonne gold (Assessment Report 3522).

Chalcocite, azurite and malachite were also observed in outcrop just over 1 kilometre to the west coast the old workings.

BIBLIOGRAPHY

EMPR ASS RPT 3522
EMPR BULL 23; 40
EMPR GEM 1972-284
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23,41-44;

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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PAGE: 1157
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BIBLIOGRAPHY

73-1A, pp. 42,43

DATE CODED: 1985/07/24
DATE REVISED: 1989/04/18

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 132**

NATIONAL MINERAL INVENTORY:

NAME(S): **QUADRA ISLAND**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 08 44 N
LONGITUDE: 125 13 31 W
ELEVATION: 30 Metres

NORTHING: 5557185
EASTING: 341010

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located on Quadra Island in the bed of a stream that flows into Open Bay (Geological Survey of Canada Memoir 23). Exact location was not reported.

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Sedimentary Industrial Min. E07 Sedimentary kaolin
TYPE: B06 Fireclay

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary			Unnamed/Unknown Informal

LITHOLOGY: Clay

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

Beds of blue compact clay, which may be suitable for brick and tile, occur in the bed of a stream that enters Open Bay on Quadra Island. The area is underlain by Karmutsen Formation volcanic rocks interbedded and overlain by Quatsino Formation limestone, both of the Upper Triassic Vancouver Group.

BIBLIOGRAPHY

EMPR BULL 23; 40
EMPR *IND MIN FILE (Clay and Shale Occurrences in BC (in Ministry Library))
GSC MAP 120A; 1386A
GSC MEM *23, pp. 122,144
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/16

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1159
REPORT: RGEN0100

MINFILE NUMBER: **092K 133**

NATIONAL MINERAL INVENTORY:

NAME(S): **MAURELLE ISLAND**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 14 30 N
LONGITUDE: 125 08 01 W
ELEVATION: 30 Metres

NORTHING: 5567679
EASTING: 347865

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the south side of Maurelle Island, about 2.4 kilometres from Surge Narrows in the bed of a stream (Geological Survey of Canada Memoir 23, page 122).

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary			Unnamed/Unknown Informal

LITHOLOGY: Clay

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Blue compact clays suitable for the manufacture of brick and tile occur on the south side of Maurelle Island. The area is underlain by granodiorite of the Juro-Cretaceous Coast Plutonic Complex.

BIBLIOGRAPHY

EMPR BULL 23; 40
EMPR *IND MIN FILE (Clay and Shale Occurrences in BC (in Ministry Library))
GSC MAP 120A; 1386A
GSC MEM *23, pp. 122,144
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/16

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 133**

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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PAGE: 1160
REPORT: RGEN0100

MINFILE NUMBER: **092K 134**

NATIONAL MINERAL INVENTORY:

NAME(S): **READ ISLAND**

MINING DIVISION: Nanaimo
Vancouver
UTM ZONE: 10 (NAD 83)

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03E
BC MAP:

NORTHING: 5565185
EASTING: 351898

LATITUDE: 50 13 13 N
LONGITUDE: 125 04 34 W
ELEVATION: 5 Metres

LOCATION ACCURACY: Within 5 KM

COMMENTS: Located near the shores of some of the bays on Read Island.

COMMODITIES: Clay

MINERALS

SIGNIFICANT: Clay
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unconsolidated
CLASSIFICATION: Residual Sedimentary Industrial Min.
TYPE: B06 Fireclay E07 Sedimentary kaolin

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Quaternary			Unnamed/Unknown Informal

LITHOLOGY: Clay

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Blue compact clays suitable for the manufacture of brick and tile occur near the shores of some of the bays on Read Island. The Island is underlain by quartz diorite, granodiorite and diorite of the Juro-Cretaceous Coast Plutonic Complex.

BIBLIOGRAPHY

EMPR BULL 23; 40
EMPR *IND MIN FILE (Clay and Shale Occurrences in BC (in Ministry Library))
GSC MAP 120A; 1386A
GSC MEM 23, 146pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
Anderson, D. (1985): Evergreen Islands, Whitecap books Ltd., p. 109

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/16

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 134**

MINFILE NUMBER: **092K 135**

NATIONAL MINERAL INVENTORY:

NAME(S): **THURLOW ISLAND**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 27 18 N
LONGITUDE: 125 22 05 W
ELEVATION: 30 Metres

NORTHING: 5591901
EASTING: 331904

LOCATION ACCURACY: Within 500M

COMMENTS: May be related to massive quartz veins of the White Pine (092K 036)
Details of the occurrence were not reported except that it is
near the Thurlow Post Office (Industrial Minerals File).

COMMODITIES: Silica

MINERALS

SIGNIFICANT: Silica
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Industrial Min.
TYPE: I07 Silica veins

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A fairly pure quartz deposit has been reported near the Thurlow Post Office, Shoal Bay. The area is underlain by quartz diorite of the Late Jurassic to Eocene Coast Plutonic Complex. The nature of the occurrence was not reported.

BIBLIOGRAPHY

EMPR BULL 23; 40
EMPR *IND MIN FILE (Silica Occurrences in BC (in Ministry Library))
GSC MAP 1386A
GSC MEM 23, 146 pp.
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/17

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 136**

NATIONAL MINERAL INVENTORY:

NAME(S): **FREDERICK ARM**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 28 15 N
LONGITUDE: 125 18 04 W
ELEVATION: 10 Metres

NORTHING: 5593512
EASTING: 336711

LOCATION ACCURACY: Within 1 KM

COMMENTS: Located along the west side of Frederick Arm, just inside the entrance (Canada Bureau of Mines Report No. 811).

COMMODITIES: Limestone Dolomite

MINERALS

SIGNIFICANT: Carbonate
ASSOCIATED: Silicate Pyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform Massive
CLASSIFICATION: Sedimentary Industrial Min.
TYPE: R09 Limestone

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Paleozoic-Mesozoic	Unnamed/Unknown Group	Unnamed/Unknown Formation	

LITHOLOGY: Limestone
Dolomite
Granite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1944
SAMPLE TYPE: Chip
COMMODITY Limestone GRADE 48.5200 Per cent
COMMENTS: Across 30 metres of limestone. Grade given for calcium oxide.
REFERENCE: CANMET Report 811, page 175, Sample 24.

CAPSULE GEOLOGY

A 300 metre wide band of limestone and dolomite enclosed in granitic rocks of the Tertiary-Cretaceous Coastal Plutonic Complex extends northwestward from the west shore of Frederick Arm up the side of Treble Mountain for at least 800 metres. The carbonates strike 125 degrees and dip vertically. The band is cut by fine grained diabase dykes.

The carbonate mass is composed of bluish grey, fine grained limestone containing a few beds of white to yellowish white dolomite. In places dolomite and pyrite grains are disseminated in the limestone. The limestone is occasionally contaminated with blebs of silicates. A chip sample across a 30 metre section of limestone contained 48.52 per cent CaO, 2.77 per cent MgO, 5.92 per cent SiO₂, 1.16 per cent Al₂O₃, 0.50 per cent Fe₂O₃, and 0.46 per cent sulphur (Canada Bureau of Mines Report 811, p. 175, Sample 24). A chip sample across a 3.7 metre thick dolomite bed on the west side of the carbonate deposit contained 32.78 per cent CaO, 17.94 per cent MgO, 2.60 per cent SiO₂, 0.55 per cent Al₂O₃, 0.46 per cent Fe₂O₃ and 0.38 per cent sulphur (Canada Bureau of Mines Report 811, p. 175, Sample 24A).

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;

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BIBLIOGRAPHY

73-1A, pp. 42,43
CANMET RPT *811, pp. 163,164,175,176

DATE CODED: 1985/07/24
DATE REVISED: 1989/05/17

CODED BY: GSB
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 137**

NATIONAL MINERAL INVENTORY:

NAME(S): **PEWTER**, BONNIE JEAN, FANNY BAY,
FRANCES BAY

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 20 24 N
LONGITUDE: 125 02 48 W
ELEVATION: 225 Metres

NORTHING: 5578437
EASTING: 354364

LOCATION ACCURACY: Within 500M
COMMENTS: Centre of Pewter claims (Assessment Report 12722).

COMMODITIES: Silver Gold Lead Zinc Copper

MINERALS

SIGNIFICANT: Sphalerite Galena
ASSOCIATED: Pyrite Quartz
ALTERATION: Malachite
COMMENTS: Malachite noted on Geological Survey of Canada Open File 480, map.
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Stockwork
CLASSIFICATION: Unknown
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au
DIMENSION: STRIKE/DIP: 053/90S TREND/PLUNGE:

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Quartz Diorite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1984
SAMPLE TYPE: Channel
COMMODITY GRADE
Silver 12.3000 Grams per tonne
Gold 0.2000 Grams per tonne
COMMENTS: Across 1 metre.
REFERENCE: Assessment Report 12722.

CAPSULE GEOLOGY

The Pewter showing is found on the west side of Frances Bay (formerly Fanny Bay).
The area around Frances Bay is underlain by granodiorite and to a lesser extent quartz diorite of the Jurassic to Cretaceous Coast Plutonic Complex. What has been described as a shear vein system, or fissure vein, crosses the bay with a strike of 053 degrees and vertical dip.
The vein is 2 to 3 metres in width, composed primarily of quartz with epidote and chlorite, and is contained within the granodiorite. On the west side of the bay, four small, partly assimilated inclusions and/or screens of metasediments and metavolcanic rocks are evident. Mapping by the Geological Survey of Canada identified malachite on the east side of the bay (Geological Survey of Canada Open File 480).
Mineralization is found with the quartz in the shear. Small veinlets crisscross the shear and contain disseminations as well as blebs of sphalerite, galena and pyrite. The best assay, for gold and silver only, is 12.3 grams per tonne silver and 0.2 grams per tonne gold over 1.0 metre (Assessment Report 12722).
This occurrence is along strike and across the bay from the Galena showing (092K 031). These two occurrences have identical settings and mineralization and are assumed to lie on the same vein.

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BIBLIOGRAPHY

EMPR ASS RPT *12722
EMPR EXPL 1984-237
GSC MAP 1386A
GSC OF *480

DATE CODED: 1985/07/24
DATE REVISED: 1989/01/25

CODED BY: GSB
REVISED BY: SED

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 138**

NATIONAL MINERAL INVENTORY:

NAME(S): **CAMPBELL RIVER AREA**

MINING DIVISION: Nanaimo

STATUS: Prospect
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 00 59 N
LONGITUDE: 125 20 05 W
ELEVATION: Metres

NORTHING: 5543065
EASTING: 332742

LOCATION ACCURACY: Within 1 KM

COMMENTS: The Campbell River Area occurrence is located to the north and east of the Quinsam coal prospects.

COMMODITIES: Coal

MINERALS

SIGNIFICANT: Coal
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Stratiform
CLASSIFICATION: Sedimentary
TYPE: A04 Bituminous coal
SHAPE: Tabular
MODIFIER: Folded
COMMENTS: The strata strike predominantly northwest to southeast and dip 3 to 10 degrees northeast.

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Cretaceous	Nanaimo	Comox	

LITHOLOGY: Shale
Sandstone
Conglomerate

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Overlap Assemblage
METAMORPHIC TYPE: Regional
PHYSIOGRAPHIC AREA: Georgia Depression
RELATIONSHIP: Post-mineralization
GRADE: HVol Bituminous

CAPSULE GEOLOGY

A number of coal seams of high volatile bituminous rank coal are present in the Upper Cretaceous Comox Formation in the area. Three drillholes (1948) encountered several coal seams interbedded with shale and lesser amounts of sandstone. Three to five seams of varying thickness are present. Total coal thickness ranges from 1.2 metres (5 seams, Hole No. 5) to 5.7 metres (3 main seams, Hole No. 6). The three seams in drillhole 6 occur in a section 13.9 metres thick and the seams contain a number of shale partings (0.06 metres to 0.2 metres thick). The seams occur at a depth of 130 metres to 177 metres.

The structure probably consists of a broad north trending syncline with the coal-bearing strata predominantly striking north-west and dipping 3 degrees to 10 degrees northeast.

BIBLIOGRAPHY

EMPR COAL ASS RPT *42, 92

DATE CODED: 1986/05/15
DATE REVISED: / /

CODED BY: EVFK
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 139**

NATIONAL MINERAL INVENTORY:

NAME(S): **MADISON**, JOY 3

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K03W
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 12 46 N
LONGITUDE: 125 17 09 W
ELEVATION: 60 Metres

NORTHING: 5564789
EASTING: 336913

LOCATION ACCURACY: Within 500M

COMMENTS: The old Madison claim was reported to exist north of the Lucky Jim group and adjoining the Rising Sun claim. The Lucky Jim group consists of three Crown Grant claims: Lucky Jim (L.723), Saxon (L.721) and Rising Sun (L.722).

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Unknown
COMMENTS: Unreported type of copper mineralization.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Upper Triassic
Upper Triassic
Unknown

GROUP

Vancouver
Vancouver

FORMATION

Karmutsen
Quatsino

IGNEOUS/METAMORPHIC/OTHER

Unnamed/Unknown Informal

LITHOLOGY: Andesite
Limestone
Dike

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

CAPSULE GEOLOGY

The area is underlain by Upper Triassic Karmutsen Formation andesitic volcanic rocks of the Vancouver Group. These are interbedded with, and overlain to the northeast by a northwest trending belt of Quatsino Formation limestone (Vancouver Group) known historically as the "lime-belt". The Vancouver Group rocks are in fault and/or intrusive contact to the northeast with intrusive rocks of the Juro-Cretaceous Coast Plutonic Complex.

A "dyke" carrying some copper was reported (Minister of Mines Annual Report 1911).

BIBLIOGRAPHY

EMPR AR *1911-194

EMPR BULL 23; 40
EMPR EXPL 1987-C218
GSC MAP 120A; 1386A
GSC MEM 23, p. 146
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23; 73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1989/05/12
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

CAPSULE GEOLOGY

1928.

Exploration on the marble was begun in 1966 by BBM Exploration. Knight Inlet Resources Limited was formed in 1969 to develop the marble potential of the property.

Seven diamond-drill holes, totalling 145.4 metres, have delineated 62,500 cubic metres of unaltered hornblende diorite. There is good potential for additional reserves of stone east of the worked face in an area covered by thin overburden (Fieldwork, 1987).

Kellard Marble Inc. of Surrey operated the quarry on an experimental basis in 1985. The extensive fracturing found in samples removed from the quarry has limited further development. The company plans to outline less fractured reserves of stone before considering placing the deposit into production (R. Scheer, personal communication, 1991).

BIBLIOGRAPHY

EMPR ASS RPT 23005
EMPR FIELDWORK 1986, pp. 309-342; *1987, pp. 393-395
EMPR INF CIRC 1987-1, p. 75; 1988-6, pp. 17,29; 1989-1, p. 40
EMPR MAP 65 (1989)
EMPR MINING 1986-1987, p. 81; 1988, p. 80
EMPR OF 1988-13; 1991-20; 1992-1; 1992-9
GSC MAP 1386A
GSC OF 480

DATE CODED: 1987/11/12
DATE REVISED: 1999/08/13

CODED BY: GW
REVISED BY: JMR

FIELD CHECK: Y
FIELD CHECK: N

MINFILE NUMBER: **092K 141**

NATIONAL MINERAL INVENTORY:

NAME(S): **NAT 4**, GREAT GOLD, EPITHERMAL

MINING DIVISION: Nanaimo

STATUS: Prospect
 REGIONS: British Columbia
 NTS MAP: 092K03W
 BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 13 00 N
 LONGITUDE: 125 16 20 W
 ELEVATION: 60 Metres

NORTHING: 5565192
 EASTING: 337897

LOCATION ACCURACY: Within 500M

COMMENTS: The occurrence was first worked in the early part of the century as the Great Gold Group (Minister of Mines Annual Report 1908). Located on the northern end of Quadra Island, south of Granite Bay and east of Main Lake (Assessment Report 17797).

COMMODITIES: Gold Silver Copper Tungsten Zinc

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Pyrrhotite Ferberite
 ALTERATION: Diopside Garnet Carbonate Silica Albite
 ALTERATION TYPE: Skarn Silicific'n
 MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Disseminated
 CLASSIFICATION: Skarn
 TYPE: K01 Cu skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Upper Triassic	Vancouver	Quatsino	
Upper Triassic	Vancouver	Karmutsen	
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Limestone
 Andesite
 Granite Dike
 Argillite
 Siltstone
 Basalt Dike
 Andesite Dike
 Felsite Dike
 Diabase Dike
 Skarn

HOSTROCK COMMENTS: Skarn mineralization occurs near the limestone-andesite contact. A granite dike occurs near the skarn mineralization.

GEOLOGICAL SETTING

TECTONIC BELT: Insular
 TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Georgia Depression

INVENTORY

ORE ZONE: SKARN

REPORT ON: N

CATEGORY: Assay/analysis
 SAMPLE TYPE: Rock

YEAR: 1986

COMMODITY	GRADE	
Silver	30.8600	Grams per tonne
Gold	3.0900	Grams per tonne
Copper	2.0000	Per cent
Tungsten	0.1000	Per cent
Zinc	0.2500	Per cent

COMMENTS: The sample width is 9.14 metres.
 REFERENCE: Assessment Report 16142.

CAPSULE GEOLOGY

The Nat 4 occurrence is located on the northern end of Quadra Island, south of Granite Bay and east of Main Lake. The occurrence has been covered by 26 contiguous claims and several Crown grants owned by Lone Jack Resources Ltd.

Mine exploration on Quadra Island dates back to the 1880s. Some trenching and underground work were done in the early part of the century (Minister of Mines Annual Reports 1908 and 1910). A brief

CAPSULE GEOLOGY

property examination was made in 1987 of the Great Gold showing and Epithermal zone by Lone Jack Resources Ltd. An extensive property exploration program was carried out in late 1987 and early 1988.

The northeastern half of Quadra Island is underlain by granitic rocks of the Juro-Cretaceous Coast Plutonic Complex. These are in fault and/or intrusive contact with Karmutsen Formation volcanic rocks and Quatsino Formation sedimentary rocks, both of the Upper Triassic Vancouver Group, along a northwest striking zone from Open Bay to Granite Bay. These units have a generally persistent strike of 150 to 155 degrees and dip subvertical to vertical. Block faulting has resulted in fault scarps which strike 145 and 180 degrees, with downthrown blocks to the southwest. Minor interbedded argillite and siltstone occur with the Quatsino Formation limestone. Younger basalt, andesite, diabase and felsite dikes are reported to cut all other rocks.

At the Great Gold showing, massive chalcopyrite occurs as discontinuous lenses near the contact of coarse crystalline limestone and grey silicified andesite and basalt. A coarse grained granite dike less than a metre in width occurs on the hangingwall side of one such lens and similar intrusions are present elsewhere. A 3.7-metre section (samples 5+10N,1+05E and 5+09N,1+04E) taken across this chalcopyrite lens averaged 5.04 grams per tonne gold (Assessment Report 17797). Twelve metres to the southwest, sample 4+99N,1+13E yielded 1.64 grams per tonne gold across 2.40 metres of chalcopyrite mineralization. The chalcopyrite occurs as discontinuous lenses that appear to be associated with grey silicified andesite. The tungsten-bearing mineral ferberite has been identified in andesite and adjacent quartz-albite-altered pyroxene granite.

Skarn mineralization, recognized by its variable pink to green colour, relative weight and hard surface, is found scattered along a zone of trenching. Petrographic studies of the skarn material shows the assemblage to consist of diopside, garnet and carbonate. Chalcopyrite, up to 10 per cent, and lesser pyrite and pyrrhotite often accompanies skarn mineralization. It has been interpreted that sulphide mineralization postdates skarn formation.

A 9.14-metre sample assayed 3.09 grams per tonne gold, 30.86 grams per tonne silver, 2.0 per cent copper, 0.1 per cent tungsten and 0.25 per cent zinc (Assessment Report 16142).

Five drillholes, totalling 604.95 metres, tested the occurrence in 1987 and 1988. The best intersection contained 1.25 grams per tonne gold, 2.8 grams per tonne silver and 0.22 per cent copper (Assessment Report 17797).

BIBLIOGRAPHY

EMPR AR 1908-148; 1910-159; 1911-205
EMPR ASS RPT *16142, *17797
EMPR BULL 23; 40
EMPR OF 1991-17
GSC MAP 120A; 1386A
GSC MEM 23
GSC OF 463; 480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43
GSC SUM RPT 1913, pp. 53-75

DATE CODED: 1987/10/26
DATE REVISED: 1997/07/31

CODED BY: LLC
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 142**

NATIONAL MINERAL INVENTORY:

NAME(S): **HERRIES PT**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K13E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 48 56 N
LONGITUDE: 125 39 37 W
ELEVATION: 10 Metres

NORTHING: 5632688
EASTING: 312604

LOCATION ACCURACY: Within 500M

COMMENTS: Located on or near the western shore of Knight Inlet about 2 kilometres northwest of Herries Point. Identified from mineral occurrence plot on Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Mesozoic-Cenozoic

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A chalcopyrite showing occurs along or near the western shore of Knight Inlet, just northwest of Herries Point (Geological Survey of Canada Open File 480). The area is underlain by quartz diorite of the Early Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 143**

NATIONAL MINERAL INVENTORY:

NAME(S): **GOAT LAKE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K01E 092K01W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 02 52 N
LONGITUDE: 124 15 05 W
ELEVATION: 30 Metres

NORTHING: 5544693
EASTING: 410407

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the southern shore of Goat Lake, east of Powell Lake.
Identified from a mineral occurrence plot in Geological Survey
of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 90 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Hornblende

LITHOLOGY: Diorite

HOSTROCK COMMENTS: Age date from nearby quartz diorite (Geological Survey of Canada
Open File 480).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A showing of chalcopyrite occurs on or near the southern shore of Goat Lake. The area is underlain by Cretaceous diorite of the Coast Plutonic Complex (Geological Survey of Canada Open File 480). The nature of the showing was not reported.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 144**

NATIONAL MINERAL INVENTORY:

NAME(S): **LEWIS**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K02W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 07 49 N
LONGITUDE: 124 51 44 W
ELEVATION: 5 Metres

NORTHING: 5554776
EASTING: 366905

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the southwest coast of West Redonda Island. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Malachite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous			Coast Plutonic Complex

ISOTOPIC AGE: 111 Ma
DATING METHOD: Potassium/Argon
MATERIAL DATED: Hornblende

LITHOLOGY: Quartz Diorite
Quartz Monzonite

HOSTROCK COMMENTS: Age date from quartz monzonite, several kilometres north of occurrence (Geological Survey of Canada Open File 480).

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Malachite was observed along the western shore of southernmost West Redonda Island (Geological Survey of Canada Open File 480). The area is underlain by Early Cretaceous quartz diorite of the Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

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REPORT: RGEN0100

MINFILE NUMBER: **092K 145**

NATIONAL MINERAL INVENTORY:

NAME(S): **QUATUM**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 24 16 N
LONGITUDE: 124 49 51 W
ELEVATION: 200 Metres

NORTHING: 5585202
EASTING: 369898

LOCATION ACCURACY: Within 500M

COMMENTS: Located on Quatum River. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Malachite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Mesozoic-Cenozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Malachite was observed along or near the northwest side of Quatum River (Geological Survey of Canada Open File 480). The area is underlain by granodiorite of the Late Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 145**

MINFILE NUMBER: **092K 146**

NATIONAL MINERAL INVENTORY:

NAME(S): **GASTINEAU**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K07W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 25 26 N
LONGITUDE: 124 47 01 W
ELEVATION: 1800 Metres

NORTHING: 5587283
EASTING: 373305

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 2 kilometres east of Quatam River. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Volcanic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Greenstone
Volcanic Breccia
Argillite
Conglomerate
Limestone
Schist
Quartz Monzonite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A chalcopyrite showing occurs in an area underlain by rocks of the Lower Cretaceous Gambier Group. These consist of greenstone, volcanic breccia, argillite, minor conglomerate, limestone and schist. Quartz monzonite of the Juro-Cretaceous Coast Plutonic Complex occurs within a few hundred metres to the south.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 147**

NATIONAL MINERAL INVENTORY:

NAME(S): **INLET**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K08W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 29 06 N
LONGITUDE: 124 21 42 W
ELEVATION: 5 Metres

NORTHING: 5593443
EASTING: 403400

LOCATION ACCURACY: Within 500M

COMMENTS: Located on the southern shore at the head of Bute Inlet. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE	GROUP	FORMATION	IGNEOUS/METAMORPHIC/OTHER
Lower Cretaceous	Gambier	Undefined Formation	

LITHOLOGY: Greenstone
Volcanic Breccia
Argillite
Conglomerate
Limestone
Schist

HOSTROCK COMMENTS: The host rock was not reported.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Chalcopyrite was observed at the end of Toba Inlet along or near the southern shore (Geological Survey of Canada Open File 480). The area is underlain by rocks of the Lower Cretaceous Gambier Group. These consist mainly of greenstone, volcanic breccia, argillite, minor conglomerate, limestone and schist.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/17
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 149**

NATIONAL MINERAL INVENTORY:

NAME(S): **KVD**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K15W 092K10W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 45 03 N
LONGITUDE: 124 57 15 W
ELEVATION: 230 Metres

NORTHING: 5623938
EASTING: 362149

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the west side of Bute Inlet about 4 kilometres south of Mellersh Point. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite Pyrrhotite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Paleozoic-Mesozoic
Mesozoic-Cenozoic

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Diorite
Amphibolite
Schist
Quartzite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Chalcopyrite and pyrrhotite were observed within a kilometre of the western shore of Bute Inlet (Geological Survey of Canada Open File 480). The area is underlain by diorite of the Late Jurassic to Eocene Coast Plutonic Complex.

A northwest trending belt of Paleozoic and/or Triassic metamorphic rocks occurs to the immediate north. These consist primarily of amphibolite, schist and quartzite.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1180
REPORT: RGEN0100

MINFILE NUMBER: **092K 150**

NATIONAL MINERAL INVENTORY:

NAME(S): **COSMOS**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 30 38 N
LONGITUDE: 125 03 51 W
ELEVATION: 5 Metres

NORTHING: 5597434
EASTING: 353646

LOCATION ACCURACY: Within 500M

COMMENTS: Along the northern shore of Bute Inlet. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Mesozoic-Cenozoic

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Chalcopyrite was observed along the northern shore of Bute Inlet (Geological Survey of Canada Open File 480). The area is underlain by quartz diorite of the Late Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 150**

MINFILE NUMBER: **092K 151**

NATIONAL MINERAL INVENTORY:

NAME(S): **PHIL, DM, D.M.,
HY-LO, HY, LO,
FILL 2-19, JEFF**

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5595685
EASTING: 328653

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K06W
BC MAP:
LATITUDE: 50 29 17 N
LONGITUDE: 125 24 56 W
ELEVATION: 457 Metres
LOCATION ACCURACY: Within 500M

COMMENTS: Located about 2 kilometres west of Phillips Arm. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite Pyrite
COMMENTS: Assumed to be molybdenite.

MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Breccia Shear
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Mesozoic-Cenozoic

Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A molybdenite showing occurs in a quarry in an area underlain by diorite of the Late Jurassic to Eocene Coast Plutonic Complex (Geological Survey of Canada Open File 480). The showing is located to the west of the entrance to Phillips Arm.

Exploration and development in the area began before 1940 as various operators explored the limits of the mineralization at the Doratha Morton (092K 023) and Alexandria (92K 028) gold mines. In the early 1980s the Falconbridge gold program and several junior mining companies reopened old workings and conducted further exploration. This work located gold veins in surface trenching and at least two adits during 1985 to 1987. Falconbridge drilled seven holes and found anomalous gold in six of them (Assessment Report 25098). The best assay from a drill section was 9.50 grams per tonne gold over 2.35 metres.

In 1997 Thurlow Resources conducted an exploration program on the area, renamed the DM property, on the HY, LO, and FILL 2-19 claims. The program consisted of soil sampling, rock sampling, and mapping to try to locate a possible extension of the molybdenite, chalcopyrite and pyrite mineralized zone beyond a rock quarry where it was originally found. The survey concentrated on the westerly part of a north-westerly striking shear zone that crosses the claim group. The soil geochemistry outlined a molybdenum anomaly for 150 metres along the base line in a northerly direction from the rock quarry. No encouraging values were found south of the quarry. Three of seven grab rock samples yielded highly anomalous values: Sample RS#4 assayed 0.5032 per cent molybdenum; Sample #6-04-04 (grab sample from the quarry) assayed 0.2817 per cent molybdenum; Sample #6-04-05 from an outcrop below the Falconbridge diamond drill sites assayed 0.556 gram per tonne gold (Assessment Report 25098).

The Fill 2-9 claims lapsed August 11, 1999. Other claims are held in good standing:

Claim Name Lapse Date Held By:
Jeff July 23, 2002 Bernard Fitch, New Westminster
Hy July, 2000 Christopher Dyakowski, Vancouver
Lo Nov. 10, 1999 Christopher Dyakowski, Vancouver
Fill A, April 2000 Bernard Fitch

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

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GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

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CAPSULE GEOLOGY

Fill 11-20		
Claim Name	Lapse Date	Held By:
Jeff	July 23, 2002	Bernard Fitch, New Westminster
Hy	July, 2000	Christopher Dyakowski, Vancouver
Lo	Nov. 10, 1999	Christopher Dyakowski, Vancouver
Fill A,	April 2000	Bernard Fitch

BIBLIOGRAPHY

EMPR ASS RPT 25098
GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: 1999/07/14

CODED BY: GJP
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1183
REPORT: RGEN0100

MINFILE NUMBER: **092K 152**

NATIONAL MINERAL INVENTORY:

NAME(S): **ARM**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11W
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 33 05 N
LONGITUDE: 125 24 10 W
ELEVATION: 480 Metres

NORTHING: 5602696
EASTING: 329787

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 1 kilometre north from the head of Fanny Bay.
Identified from a mineral occurrence plot in Geological Survey
of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Mesozoic-Cenozoic

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

A showing of chalcopyrite is reported on a mineral occurrence plot on Geological Survey of Canada Open File 480. The area is underlain by granodiorite of the Late Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 152**

MINFILE NUMBER: **092K 153**

NATIONAL MINERAL INVENTORY:

NAME(S): **FORWARD**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K05E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 28 35 N
LONGITUDE: 125 44 21 W
ELEVATION: 75 Metres

NORTHING: 5595185
EASTING: 305653

LOCATION ACCURACY: Within 500M

COMMENTS: Located near the southern shore of Forward Harbour, east of Sunderland Channel. Identified from a mineral occurrence plot in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Chalcopyrite
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP
Mesozoic-Cenozoic

FORMATION

IGNEOUS/METAMORPHIC/OTHER
Coast Plutonic Complex

LITHOLOGY: Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Chalcopyrite was observed along or near the southern shore of Forward Harbour (Geological Survey of Canada Open File 480). The area is underlain by diorite of the Late Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 154**

NATIONAL MINERAL INVENTORY:

NAME(S): **HEYDON LAKE**

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K12E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 32 48 N
LONGITUDE: 125 39 28 W
ELEVATION: 40 Metres

NORTHING: 5602788
EASTING: 311706

LOCATION ACCURACY: Within 500M

COMMENTS: Located on or near the north shore of Heydon Lake which drains into the west side of Loughborough Inlet. Identified from a mineral occurrence in Geological Survey of Canada Open File 480.

COMMODITIES: Copper

MINERALS

SIGNIFICANT: Malachite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Unknown
CLASSIFICATION: Unknown

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE

Mesozoic-Cenozoic

GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Diorite
Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

Malachite was observed on or near the northern shore of Heydon Lake (Geological Survey of Canada Open File 480). The area is underlain by diorite and quartz diorite of the Late Jurassic to Eocene Coast Plutonic Complex.

BIBLIOGRAPHY

GSC MAP 1386A
GSC MEM 23, p. 146
GSC OF 463; *480
GSC P 70-1A, pp. 44-49; 71-1A, pp. 31-33; 72-1A, pp. 21-23;
73-1A, pp. 42,43

DATE CODED: 1989/05/18
DATE REVISED: 1989/05/20

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 155**

NATIONAL MINERAL INVENTORY:

NAME(S): **LL**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K02E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 00 53 N
LONGITUDE: 124 40 14 W
ELEVATION: 560 Metres

NORTHING: 5541605
EASTING: 380316

LOCATION ACCURACY: Within 5 KM

COMMENTS: Centre of claims, 18 kilometres north-northwest from the town of Powell River, 2.5 kilometres east of Okeover Inlet (Claim map 92K2E, 1967).

COMMODITIES: Molybdenum Copper

MINERALS

SIGNIFICANT: Molybdenite Chalcopyrite
ASSOCIATED: Quartz
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Stockwork
CLASSIFICATION: Porphyry
TYPE: L04 Porphyry Cu ± Mo ± Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Mesozoic			Coast Plutonic Complex

LITHOLOGY: Granodiorite
 Quartz Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Plutonic Rocks

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

CAPSULE GEOLOGY

The LL occurrence is underlain by Mesozoic granodiorite and quartz diorite of the Coast Plutonic Complex. Molybdenite and chalcopyrite occur in quartz veins and stringers in granodiorite.

BIBLIOGRAPHY

EMPR AR 1966-58; *1967-59

DATE CODED: 1990/04/04
DATE REVISED: 1990/04/04

CODED BY: GO
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 156**

NATIONAL MINERAL INVENTORY:

NAME(S): **GREENSTONE CREEK**

STATUS: Showing
REGIONS: British Columbia, Vancouver Island
NTS MAP: 092K04E
BC MAP:

MINING DIVISION: Nanaimo

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 00 39 N
LONGITUDE: 125 35 40 W
ELEVATION: Metres

NORTHING: 5543061
EASTING: 314117

LOCATION ACCURACY: Within 500M

COMMENTS: Located 1.3 kilometres downstream from the Big G mine (092F 237),
on the water's edge of Greenstone Creek (Geological Survey of
Canada Summary Report 1930, Part A).

COMMODITIES: Zinc Lead Copper

MINERALS

SIGNIFICANT: Sphalerite Galena Pyrite Chalcopyrite
ASSOCIATED: Quartz
ALTERATION: Wollastonite Diopside Garnet Quartz
ALTERATION TYPE: Skarn
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Massive Podiform
CLASSIFICATION: Skarn

HOST ROCK

DOMINANT HOSTROCK: Sedimentary

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Upper Triassic Vancouver Quatsino

LITHOLOGY: Limestone

GEOLOGICAL SETTING

TECTONIC BELT: Insular
TERRANE: Wrangell

PHYSIOGRAPHIC AREA: Vancouver Island Ranges

BIBLIOGRAPHY

DATE CODED: 1990/02/27
DATE REVISED: / /

CODED BY: GJP
REVISED BY:

FIELD CHECK: N
FIELD CHECK:

MINFILE NUMBER: **092K 157**

NATIONAL MINERAL INVENTORY:

NAME(S): **PILLDOLLA**, CAVE, CLIFF AREA

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K08E
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 17 52 N
LONGITUDE: 124 07 16 W

NORTHING: 5572341
EASTING: 420152

ELEVATION: 1524 Metres

LOCATION ACCURACY: Within 500M

COMMENTS: The cave zone, near the headwaters of Pilledolla Creek, is located approximately 125 kilometres northwest of Vancouver. The small community of Egmont is 60 kilometres south and Princess Royal Reach at the head of Jervis Inlet is 10 kilometres southeast (Assessment Report 23233).

COMMODITIES: Gold Silver Copper Lead Zinc

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Galena Pyrrhotite Sphalerite
MINERALIZATION AGE:

DEPOSIT

CHARACTER: Disseminated Shear
CLASSIFICATION: Hydrothermal Epigenetic
TYPE: I05 Polymetallic veins Ag-Pb-Zn±Au

HOST ROCK

DOMINANT HOSTROCK: Plutonic

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous Mesozoic-Cenozoic	Gambier	Undefined Formation	Coast Plutonic Complex

LITHOLOGY: Granodiorite
Quartz Mica Schist
Quartz Chlorite Schist
Biotite Schist
Marble
Limestone
Siliceous Meta Volcanic
Siliceous Meta Sediment/Sedimentary
Quartz Monzonite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
RELATIONSHIP: Plutonic Rocks
GRADE: Greenschist

CAPSULE GEOLOGY

The Pilledolla occurrence is located near the headwaters of Pilledolla Creek. The small community of Egmont is 60 kilometres south and Princess Royal Reach at the head of Jervis Inlet is 10 kilometres southeast.

The Pilledolla property is located in a northwest trending roof pendant comprised of Lower Cretaceous Gambier Group volcanic and sedimentary rocks, within the Jurassic to Cretaceous Coast Plutonic Complex. Quartz mica schist, quartz chlorite schist, biotite schist, marble and limestone occur on the property. Intercalated with the quartz mica schist are bands of undifferentiated siliceous metavolcanic and metasedimentary rocks that are locally hornfelsed with local skarn development. Coast Plutonic Complex rocks are granodiorite to quartz monzonite in composition. Near the pendant contacts, the granodiorite is occasionally strongly silicified and/or argillic altered with up to 10 per cent disseminated pyrite. Small irregular quartz veins occur locally with variable amounts of coarse-grained pyrite.

A prominent west-northwest trending, moderately dipping shear extends for over 1000 metres on the east side of the headwaters of Pilledolla Creek. This shear crosscuts both Gambier Group rocks and Coast Plutonic Complex rocks and lies uphill to the north from a train of numerous subangular to subrounded mineralized boulders. The boulders commonly contain fine to coarse grained pyrite with disseminations and blebs of chalcopyrite. Less commonly galena, pyrrhotite and sphalerite occur.

The shear separates an expansive limestone-marble-siliceous

CAPSULE GEOLOGY

metavolcanic assemblage to the north from strongly gossanous quartz mica schists/siliceous metavolcanics in the Cliff Area. Several hundred metres to the east, the structure passes from Gambier Group rocks into Coast Plutonic Complex rocks at the Cave zone.

Mineralization at the Cave zone consists of fine to coarse grained pyrite within the shear which varies from 1 metre wide at its west end to 3 metres at the east end. Rocks hosting this structure are granodiorite of the Coast Plutonic Complex. Continuous chip sampling over varying widths of the shear along its strike yielded up to 775 parts per billion gold across 65 centimetres. The highest value obtained from the Cave zone was from a piece of float directly below the mineralization in the overhanging cliff. This sample analysed 12.6 grams per tonne gold, 2.15 per cent copper and 107.9 grams per tonne silver (Assessment Report 23233).

In 1994, 15 rock samples were taken from the west end of the Cave zone and extending about 15 metres along the western part of the shear. Grab sample 54164, taken at the west end of the Cave zone, yielded 0.68 gram per tonne gold, 14.3 grams per tonne silver and 0.33 per cent copper (Assessment Report 23897). This sampling has completed 80 metres sampling along the Cave zone shear.

From the base of the cliffs near the bottom of the Cliff Area and Cave zone, 12 samples of mineralized schist yielded values greater than 1 gram per tonne gold; copper values range up to 0.91 per cent. One select grab of mineralization from a single boulder analysed 20.3 grams per tonne gold, 548.4 grams per tonne silver and 10.25 per cent lead (Assessment Report 23233, page 13).

BIBLIOGRAPHY

EMPR ASS RPT *23233, *23897
GSC MAP 65A; 169A; 1386A
GSC OF 463; 480

DATE CODED: 1994/12/04
DATE REVISED: 1997/05/30

CODED BY: GO
REVISED BY: KJM

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 158**

NATIONAL MINERAL INVENTORY:

NAME(S): **APPLE**, GRIZZLY CREEK, GRIZZLY,
DOWN THE HILL, WATERFALL, VALLEY,
GLACIER, SHANNON

STATUS: Prospect
REGIONS: British Columbia
NTS MAP: 092K14W
BC MAP:
LATITUDE: 50 50 40 N
LONGITUDE: 125 16 37 W
ELEVATION: 1402 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: The approximate location of the Grizzly vein (Assessment Report 20421). Claim group lies in the upper reaches of the Apple River, between Knight and Bute inlets.

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)
NORTHING: 5634997
EASTING: 339703

COMMODITIES: Gold Copper Silver Zinc Molybdenum

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite Sphalerite Molybdenite
ASSOCIATED: Quartz
ALTERATION: Clay
ALTERATION TYPE: Argillic
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Vein Disseminated Massive Stockwork
CLASSIFICATION: Epithermal Porphyry
TYPE: H04 Epithermal Au-Ag-Cu: high sulphidation L04 Porphyry Cu ± Mo ± Au
DIMENSION: 150 Metres STRIKE/DIP: TREND/PLUNGE:
COMMENTS: The Grizzly vein trends southeast, dips shallowly southwest and has been traced over 150 metres along strike.

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Plutonic Rocks
METAMORPHIC TYPE: Regional RELATIONSHIP: Post-mineralization GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1997
SAMPLE TYPE: Chip
COMMODITY GRADE
Gold 36.4000 Grams per tonne
Molybdenum 0.0212 Per cent
Copper 0.0319 Per cent
COMMENTS: Sample #J96SH1108, taken of a 10-centimetre width of iron stained vein.
REFERENCE: Assessment Report 25216.

ORE ZONE: VEIN REPORT ON: N
CATEGORY: Assay/analysis YEAR: 1989
SAMPLE TYPE: Grab
COMMODITY GRADE
Silver 0.2800 Grams per tonne
Gold 1.4500 Grams per tonne
COMMENTS: Sample 59036 from the Grizzly vein.
REFERENCE: Assessment Report 20421.

CAPSULE GEOLOGY

The Apple occurrence is located near the headwaters of Apple Creek, 13 kilometres northeast of Stafford Lake and between Knight and Bute inlets. The Apple occurrence consists of the Grizzly vein, Down the Hill vein and other veins in Grizzly Creek, over about 1 kilometre.

CAPSULE GEOLOGY

The Apple occurrence was discovered as a followup exploration program to the 1988 regional geochemical stream sediment sampling program in the Bute Inlet area. The Apple claims were subsequently staked by Placer Dome Inc. in 1989 and explored from 1989 to 1991.

The Apple occurrence is underlain by the Jurassic-Cretaceous Coast Plutonic Complex, which comprises granodiorite, granitoid gneiss, amphibolite and schist. The metamorphic rocks generally occur as small fault-bound pendants. Feldspar porphyry dikes are locally abundant. No previously known mineral occurrences exist within and adjacent to the property.

At the Apple occurrence, mineralization occurs as porphyry and epithermal-style mineralization in and adjacent to quartz veins. The Grizzly vein is described as a massive pyrite and chalcopryite-bearing quartz vein. The vein is up to 50 centimetres wide and generally composed of massive white quartz, although some narrow veins are vuggy. Massive and ribbons of quartz are common in the vein. Chalcopryite is uncommon. Alteration envelopes consist of pyritic clay-altered rock up to 1 metre or more wide. The vein trends southeast and dips shallowly to the southwest. The Grizzly vein has been traced over 150 metres along strike.

Rock samples taken from the Grizzly vein in 1990 were chip samples of mineralized quartz vein and altered wallrocks. The best results were from sample 34952 which yielded 1.35 per cent copper from a quartz vein with pyrite, and sample 59036 which yielded 1.45 grams per tonne gold and 0.28 gram per tonne silver (Assessment Report 20421). In 1990, additional sampling from Grizzly Creek yielded up to 0.34 gram per tonne silver, 8.7 grams per tonne gold, 0.16 per cent lead, 0.62 per cent zinc and 0.15 per cent arsenic (Assessment Report 21774). High gold values were associated with high silver, copper, lead and zinc.

The Down the Hill vein is exposed 500 metres downstream from the Grizzly vein. It is a vuggy pyrite-bearing vein that is late and typically epithermal. It is composed of white to clear vuggy quartz that commonly contains disseminations and ribbons of pyrite. Minor sphalerite is also present. The vein occurs singly or as stockworks and is characterized by multiple stages of injection and brecciation. Sample 59017 yielded 4.5 grams per tonne gold and 0.13 gram per tonne silver (Assessment Report 20421).

Other epithermal-style veins are found in the vicinity of the Grizzly occurrence. These are classified as irregular pyrite and molybdenite-bearing, and vuggy pyrite-molybdenite-chalcopryite-bearing veins. See Waterfall showing (092K 161).

In 1997, Tiberon Mineral Ltd. prospected the Grizzly property as the Shannon claims. An assay of a sample collected over a 10 centimetre width of vein stained with iron, pyrite and malachite yielded 36.4 grams per tonne gold, 0.0212 per cent molybdenum, and 0.0319 per cent copper (Assessment Report 25216). 0.0319 per cent copper.

The Shannon 1 claim is held in good standing until September 23, 2001; and the Shannon 2 claim is held in good standing until September 23, 2000, by 685097 Alberta Incorporated.

BIBLIOGRAPHY

EMPR ASS RPT *20421, 21774, 25216
EMPR RGS 22 (1989)
GSC MAP 1386A
GSC OF 480
Placer Dome File

DATE CODED: 1997/05/30
DATE REVISED: 1999/07/06

CODED BY: KJM
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 159**

NATIONAL MINERAL INVENTORY:

NAME(S): **BOAT, NORA, LOST CREEK,
BEAUT**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K15W
BC MAP:

MINING DIVISION: Vancouver
UTM ZONE: 10 (NAD 83)

LATITUDE: 50 57 35 N
LONGITUDE: 124 49 38 W
ELEVATION: 600 Metres

NORTHING: 5646935
EASTING: 371678

LOCATION ACCURACY: Within 500M

COMMENTS: The approximate location of rock samples 905724 and 905725 taken along a creek flowing into Bute Inlet (Assessment Report 21236).

COMMODITIES: Copper Silver

MINERALS

SIGNIFICANT: Chalcopyrite Pyrite
ASSOCIATED: Quartz Calcite
ALTERATION: Malachite
ALTERATION TYPE: Oxidation
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated Stratabound
CLASSIFICATION: Igneous-contact Replacement
TYPE: 106 Cu±Ag quartz veins K SKARN
G MARINE VOLCANIC ASSOCIATION

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

STRATIGRAPHIC AGE

Paleozoic
Jurassic-Cretaceous

GROUP

Unnamed/Unknown Group

FORMATION

Unnamed/Unknown Formation

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Marble
Schist
Gneiss

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Wrangell
METAMORPHIC TYPE: Contact

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP: Syn-mineralization GRADE:

INVENTORY

ORE ZONE: SAMPLE

REPORT ON: N

CATEGORY: Assay/analysis

YEAR: 1990

SAMPLE TYPE: Grab

COMMODITY

GRADE

Silver

12.3000

Grams per tonne

Copper

0.8700

Per cent

COMMENTS: Sample 057302.

REFERENCE: Assessment Report 21236.

CAPSULE GEOLOGY

The Boat showing is described as being located on the east side of Bute Inlet, 6.4 kilometres east-southeast of Purcell Point, at approximately 1219 metres elevation.

The earliest record of mineral exploration in the Upper Bute Inlet area was in 1967 by Rio Tinto Canadian Exploration Ltd. who explored a porphyry-style copper occurrence northeast of the confluence of Bishop Creek with Southgate River. Swiss Aluminium Mining Co. of Canada Ltd. explored the same area in 1971. Low-grade copper mineralization related to a felsic granitoid plug was outlined in the area but the claims were allowed to lapse. Hecla Operating Company explored a stratiform polymetallic target on the east side of Bute Inlet in 1973. In 1989, Slumach Jackson Mines Ltd. staked a claim group north of Southgate River on what Mustang Resources Inc. reported was staked on a high grade gold mine in the 1700s and 1800s. In 1991 and 1992, Galleon Mining Limited conducted sampling, geological mapping, geophysical surveys and trenching.

The area is regionally underlain by the Jurassic to Cretaceous Coast Plutonic Complex, composed of foliated and non-foliated

CAPSULE GEOLOGY

granodiorite, granite and quartz diorite intrusions. These intrusions are flanked by older Paleozoic and/or Triassic age sedimentary and volcanic strata, largely as roof pendants composed of amphibolite, gneiss, schist, quartzite, limestone and andesite. The regional structural trend is northwest.

The oldest rocks in the area is a complex of Paleozoic or older garnetiferous amphibolite, schlieren gneiss, biotite hornblende schist, medium-grained diorite and rare hornblendite, which are preserved in northwest trending belts in the Coast Plutonic Complex. Foliations usually parallel contacts. Metavolcanic and metasedimentary rocks consist of porphyritic andesite, micaceous quartzite, biotite schist, phyllite, siltstone, argillite and minor impure limestone of the Cretaceous Gambier Group. These rocks are contained within diorite and granodiorite of the Coast Plutonic Complex.

At the Boat showing, copper and iron oxide staining closely follow a subvertical stratigraphic horizon in a zone of marble, schist and gneiss exposed near a vertical gully. Sample 057302 yielded 0.87 per cent copper and 12.3 grams per tonne silver from quartz and calcite with 2 to 5 per cent pyrite and chalcopyrite with extensive malachite staining (Assessment Report 21236). This zone may represent either partly remobilized, skarnified, stratabound base metal accumulations or skarn-type mineralization in Gambier Group rocks.

BIBLIOGRAPHY

- EMPR ASS RPT *21236, 22178
EMPR GEM 1973-254
EMPR PF (Aurum Geological Consultants Inc. (1991): Summary Report on the Bute Inlet Property in Galleon Mining Limited Prospectus, July 26, 1991)
GSC MAP 1386A
GSC OF 480; 2039
GCNL #111(June 9), 1992

DATE CODED: 1997/05/30
DATE REVISED: / /

CODED BY: KJM
REVISED BY:

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 160**

NATIONAL MINERAL INVENTORY:

NAME(S): **GARD**, GUARD 17

MINING DIVISION: Vancouver

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K11E
BC MAP:

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 34 27 N
LONGITUDE: 125 06 20 W
ELEVATION: 1000 Metres

NORTHING: 5604589
EASTING: 350912

LOCATION ACCURACY: Within 500M

COMMENTS: The location of grab rock sample 8GRD-R90-P41 on the Gard 2 claim.

COMMODITIES: Zinc Lead Copper Silver Gold

MINERALS

SIGNIFICANT: Unknown
MINERALIZATION AGE: Unknown

DEPOSIT

CHARACTER: Disseminated
CLASSIFICATION: Volcanogenic
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn

HOST ROCK

DOMINANT HOSTROCK: Metasedimentary

<u>STRATIGRAPHIC AGE</u>	<u>GROUP</u>	<u>FORMATION</u>	<u>IGNEOUS/METAMORPHIC/OTHER</u>
Lower Cretaceous	Gambier	Undefined Formation	Coast Plutonic Complex
Jurassic-Cretaceous			

LITHOLOGY: Greenstone
Rhyolite
Tuff
Chloritic Schist
Phyllite
Shale
Conglomerate
Quartz Feldspar Porphyry
Granodiorite
Quartz Diorite

HOSTROCK COMMENTS: Correlation with Gambier Group is uncertain.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
TERRANE: Gambier
METAMORPHIC TYPE: Regional RELATIONSHIP: GRADE: Greenschist

INVENTORY

ORE ZONE:	SAMPLE	REPORT ON:	N
CATEGORY:	Assay/analysis	YEAR:	1991
SAMPLE TYPE:	Grab		
COMMODITY		GRADE	
Silver		20.8000	Grams per tonne
Gold		1.6400	Grams per tonne
Copper		0.1000	Per cent
Lead		2.5100	Per cent
Zinc		3.3900	Per cent

COMMENTS: Grab sample 8GRD-R90-P41.
REFERENCE: Assessment Report 21585.

CAPSULE GEOLOGY

The Gard showing is located at 1000 metres elevation, along Moh Creek 5 kilometres east of Mount Gardiner on the northwest shores of Bute Inlet. There is no record of previous mineral exploration in the Moh Creek area. In 1991 and 1992, J. Page of Southgate Resource Group Inc. contracted Westex Exploration Ltd. to conduct an exploration program on the Gard claims.

The Moh Creek area of Bute Inlet is located in the Coast Plutonic Complex which forms all the mainland area in the Bute Inlet map sheet (092K). Intrusions of the Coast Plutonic Complex range from quartz diorite to granodiorite. Sinuous bands of pre-existing volcanic and sedimentary rocks form pendants, which are remnants of calcalkaline volcanic centres. In the Bute Inlet area, the pendants form a series of low grade metamorphic, northwest striking sinuous

CAPSULE GEOLOGY

bands which help define the regional fabric. These pendants have been correlated with the Lower Cretaceous Gambier Group. Recent work, however, has defined a general trend from Middle Cretaceous in the southwest to Middle Paleozoic in the northeast of the Bute Inlet area. Zircon age dates in the Fawn Point area indicate a Late Jurassic to Early Cretaceous age of pendants.

The Gard showing is underlain by a pendant of metavolcanic and metasedimentary rocks, extending from Bute Inlet in the southeast to Mount Gardiner in the northwest. Metavolcanic rocks exposed on the east side of Moh Creek valley include greenstone and rhyolite that are overlain by green tuff, lithic tuff and a thick sequence of thinly laminated, fine grained metasediments. Chlorite schist, phyllite, shale and conglomerate comprise metasediments. The metasedimentary rocks generally strike between 120 and 165 and dip 80-90 degrees northeast.

Metavolcanics and metasediments have been intruded by post-pendant quartz feldspar porphyry and fine grained, plagioclase bearing diabase.

In 1991, several grab rock samples taken from the Gard 2 and 11 claims yielded anomalous base and precious metal values. In most cases, however, these samples were taken from small, localized mineralization associated with intrusive contacts. Sample 8GRD-R90-P41 yielded 3.39 per cent zinc, 2.51 per cent lead, 0.10 per cent copper, 20.8 grams per tonne silver and 1.64 grams per tonne gold (Assessment Report 21585). Sample 8GRD-R90-P48 yielded 1.19 per cent zinc, 0.22 per cent lead, 0.03 per cent copper and 7.6 grams per tonne silver (Assessment Report 21585). Sample 8GRD-R90-P53 yielded 0.05 per cent zinc, 1.11 per cent lead, 0.02 per cent copper, 15.0 grams per tonne silver and 3.25 grams per tonne gold (Assessment Report 21585).

BIBLIOGRAPHY

EMPR ASS RPT 20307, *21585, *22545
GSC MAP 1386A
GSC OF 480

DATE CODED: 1997/05/30
DATE REVISED: 1999/07/16

CODED BY: KJM
REVISED BY: JMR

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 161**

NATIONAL MINERAL INVENTORY:

NAME(S): **WATERFALL**, VALLEY, GLACIER,
 APPLE

STATUS: Showing
 REGIONS: British Columbia
 NTS MAP: 092K14W
 BC MAP:
 LATITUDE: 50 49 16 N
 LONGITUDE: 125 19 04 W
 ELEVATION: 1524 Metres
 LOCATION ACCURACY: Within 500M
 COMMENTS: The Waterfall zone (Assessment Report 21774).

MINING DIVISION: Vancouver
 UTM ZONE: 10 (NAD 83)
 NORTHING: 5632492
 EASTING: 336747

COMMODITIES: Copper Molybdenum Zinc Lead Gold
 Silver

MINERALS

SIGNIFICANT: Pyrite Chalcopyrite Molybdenite Sphalerite Galena
 ASSOCIATED: Quartz
 ALTERATION: Sericite Clay
 ALTERATION TYPE: Sericitic Argillic
 MINERALIZATION AGE:

DEPOSIT

CHARACTER: Vein Disseminated Stockwork
 CLASSIFICATION: Porphyry Epithermal
 TYPE: L04 Porphyry Cu ± Mo ± Au H04 Epithermal Au-Ag-Cu: high sulphidation
 DIMENSION: Metres STRIKE/DIP: TREND/PLUNGE: /

HOST ROCK

DOMINANT HOSTROCK: Plutonic

STRATIGRAPHIC AGE GROUP FORMATION IGNEOUS/METAMORPHIC/OTHER
 Jurassic-Cretaceous Coast Plutonic Complex

LITHOLOGY: Diorite
 Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)
 TERRANE: Plutonic Rocks
 METAMORPHIC TYPE: Regional RELATIONSHIP: Post-mineralization GRADE: Greenschist

CAPSULE GEOLOGY

The Waterfall occurrence is located about 13 kilometres northeast of Stafford Lake and between Knight and Bute inlets. The Waterfall showing includes the Glacier and Valley zones. The Valley zone is about 500 metres north-northeast of the Waterfall zone; the Glacier zone is 2400 metres north-northeast of the Waterfall zone and 2000 metres west of the Apple occurrence (092K 158).

The showings are underlain by the Jurassic-Cretaceous Coast Plutonic Complex, which comprises granodiorite, granitoid gneiss, amphibolite and schist. The metamorphic rocks generally occur as small fault-bound pendants. Feldspar porphyry dikes are locally abundant.

At the Glacier and Valley zones, porphyry-style mineralization occurs in and adjacent to quartz veins. Pyrite, chalcopyrite and molybdenite occur as narrow veins that are composed of white, vuggy quartz which characteristically contain coarse blebs of pyrite with lesser chalcopyrite. Minor fine-grained molybdenite is present along the margins of veins. Narrow envelopes of sericite and clay alteration locally surround the veins. Fine grained disseminated pyrite is present locally in the altered wallrock adjacent to the veins. The veins trend north-northeasterly and east-southeasterly, and generally have steep to moderate dips. Grab rock samples from the Glacier zone yielded up to 3.65 grams per tonne gold, 0.11 per cent copper and 0.26 per cent zinc. At the Valley zone, grab rock samples yielded up to 2.9 grams per tonne silver, 0.10 per cent copper and 0.07 per cent molybdenum (Assessment Report 21774).

At the Waterfall zone, grab rock samples yielded up to 1.04 grams per tonne gold, 0.28 per cent copper, 0.34 per cent lead and 1.12 per cent zinc (Assessment Report 21774). Pyrite and chalcopyrite +/- galena +/- sphalerite +/- molybdenite bearing, vuggy quartz veins occur singly or as stockworks in diorite to granodiorite. Pyrite and chalcopyrite with lesser galena and sphalerite occur as blebs and masses in the veins, whereas

RUN DATE: 26-Jun-2003
RUN TIME: 09:30:14

MINFILE MASTER REPORT
GEOLOGICAL SURVEY BRANCH
ENERGY AND MINERALS DIVISION

PAGE: 1197
REPORT: RGEN0100

CAPSULE GEOLOGY

molybdenite occurs as disseminations within the hostrock along the margins of the veins. Narrow envelopes of clay-altered hostrock occur adjacent to the veins.

BIBLIOGRAPHY

EMPR ASS RPT 20421, *21774
EMPR RGS 22 (1989)
GSC MAP 1386A
GSC OF 480
Placer Dome File

DATE CODED: 1997/11/07
DATE REVISED: 1997/11/07

CODED BY: GO
REVISED BY: GO

FIELD CHECK: N
FIELD CHECK: N

MINFILE NUMBER: **092K 162**

NATIONAL MINERAL INVENTORY:

NAME(S): **LORAX**

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092K01W
BC MAP:

MINING DIVISION: Vancouver

UTM ZONE: 10 (NAD 83)

LATITUDE: 50 10 42 N
LONGITUDE: 124 18 07 W
ELEVATION: 1675 Metres

NORTHING: 5559280
EASTING: 407043

LOCATION ACCURACY: Within 500M

COMMENTS: Located about 41 kilometres northeast of the town of Powell River, just southeast of the north end of Powell Lake (Assessment Report 26072).

COMMODITIES: Zinc Lead Copper Gold Silver

MINERALS

SIGNIFICANT: Pyrite Sphalerite Galena Chalcopyrite
MINERALIZATION AGE:

DEPOSIT

CHARACTER: Massive Layered
CLASSIFICATION: Volcanogenic Syngenetic
TYPE: G06 Noranda/Kuroko massive sulphide Cu-Pb-Zn G07 Subaqueous hot spring Ag-Au
DIMENSION: Metres STRIKE/DIP: TREND/PLUNGE: /

HOST ROCK

DOMINANT HOSTROCK: Volcanic

STRATIGRAPHIC AGE

Lower Cretaceous
Upper Triassic
Cretaceous

GROUP

Gambier
Vancouver

FORMATION

Undefined Formation
Karmutsen

IGNEOUS/METAMORPHIC/OTHER

Coast Plutonic Complex

LITHOLOGY: Felsic Baritic Tuff
Mafic Tuff
Quartzite
Felsic Tuff
Carbonaceous Mudstone
Clastic Sediment/Sedimentary
Granodiorite
Diorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Gambier
METAMORPHIC TYPE: Regional

Plutonic Rocks
RELATIONSHIP:

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

GRADE: Greenschist

INVENTORY

ORE ZONE: SAMPLE REPORT ON: N
CATEGORY: Assay/analysis YEAR: 2001
SAMPLE TYPE: Chip
COMMODITY GRADE
Silver 17.8000 Grams per tonne
Copper 0.3000 Per cent
Lead 0.3000 Per cent
Zinc 3.1000 Per cent

COMMENTS: A weighted average of 11 chip samples over 3.6 metres. A weighted average over 2.9 metres yielded 0.67 grams per tonne gold.
REFERENCE: Assessment Report 26072.

CAPSULE GEOLOGY

The Lorax is a volcanogenic massive sulphide occurrence that is found within a block or pendant of metasedimentary and metavolcanic rocks engulfed in intrusive rock of the Cretaceous Coast Plutonic Complex. The complex consists of diorites and granodiorites. The pendant forms a northwest trending belt of metamorphic rocks comprised of Upper Triassic Karmutsen Group and Lower Cretaceous Gambier Group.

Prospecting in 1998 by Arnd Burgert while working on a Prospectors Assistance Program grant from the Ministry of Energy and Mines resulted in the discovery of a 0.2 metre thick sulphide lens, traceable over 8 metres. Burgert received a another grant in 1999 and his follow-up work led to the discovery of a series of en-echelon

CAPSULE GEOLOGY

massive sulphide lenses about 175 metres to the south of (and down section from) the first discovery. The longest lens is 10 metres long and up to 1 metre thick. A 2001 prospecting grant to Burgert has allowed him to further define this mineral deposit.

The sulphides are fine to coarse grained, bedded, and weathered black, orange or red. The 1998 showing is hosted by impure quartzite. The 1999 showing occurs at the contact between a 200 metre thick section of mafic flows (footwall) and a unit dominated by mafic tuff and clastic sediments (hangingwall). A coarse grained marble lens occurring among the sulphide lenses is thought to be consistent with a carbonate exhalite. The 1999 showing is capped by a 0.2 metre thick felsic baritic tuff which in turn is overlain by mafic tuffs, felsic tuff and a 20 metre thick section of black, sulphidic, carbonaceous mudstone. The 1999 sulphide lens is zoned and contains pyrite and sphalerite with lesser chalcopyrite and galena, while the 1998 lens is devoid of galena, and exhibits no zoning.

The following analyses were reported in 1999 Assessment Report 26072 and in a forthcoming 2001 Assessment Report by Burgert. At the 1999 showing, peak values from among outcrop chip samples of at least 0.3 metres in length include 2.59 grams per tonne gold, 12.2 per cent zinc, 211 grams per tonne silver, 1.0 per cent (9950 ppm) copper, and 1.90 per cent lead. A weighted average of 11 chip samples aggregating 3.6 metres gave the following values: 3.1 per cent zinc; 17.8 grams per tonne silver; 0.3 per cent copper; 0.3 per cent lead. Chip samples aggregating 2.9 metres yielded a weighted average analysis of 0.67 gram per tonne gold.

Material in many chip samples is strongly weathered rock that has been leached in situ and the metals grades in the underlying fresh sulphides may be higher. Geochemical soil anomalies have been defined on a soil grid established around the showings.

BIBLIOGRAPHY

EM EXPL 2001-23-31
EMPR ASS RPT 26072
EMPR BULL *39
GSC MAP 1386A
GSC OF 480

DATE CODED: 2001/12/14
DATE REVISED: 2001/12/17

CODED BY: GJP
REVISED BY: GJP

FIELD CHECK: N
FIELD CHECK: N

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNE002	NAME: MONEY SPINNER	STATUS: Prospect
Production Year	Tonnes Mined	Tonnes Milled
1938		
1897	1	
		Commodity
		Silver
		Gold
		Gold
		Grams Recovered
		1,524
		6,750
		62
		Kilograms Recovered

SUMMARY TOTALS: 092GNE002

NAME: **MONEY SPINNER**

		<u>Metric</u>	<u>Imperial</u>
	Mined:	1 tonnes	1 tons
	Milled:	tonnes	tons
Recovery:	Silver:	1,524 grams	49 ounces
	Gold:	6,812 grams	219 ounces
Comments:	1938:	Clean-up of stamp mill.	
	1897:	Ore mined less than 1 tonne (90 kilograms).	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>092GNW003</u>	NAME:	<u>BRITANNIA</u>	STATUS:	Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1988		362	Silver	752	
			Gold	14,624	
			Copper		345
1977			Silver	7,465	
			Copper		56,555
1976			Copper		90,124
1975			Silver	4,043	
			Gold	43	
			Copper		72,740
1974	361,509	362,114	Silver	2,692,618	
			Gold	20,186	
			Copper		4,686,784
1973	496,403	497,861	Silver	3,200,903	
			Copper		6,783,030
1972	692,679	694,462	Silver	3,025,047	
			Gold	1,555	
			Copper		8,931,184
1971	633,267	654,044	Silver	2,907,664	
			Copper		7,807,930
1970	287,977	289,628	Silver	672,198	
			Gold	17,044	
			Cadmium		583
			Copper		2,497,044
			Zinc		124,060
1969	548,670	549,092	Silver	1,652,254	
			Gold	46,966	
			Cadmium		1,542
			Copper		6,334,067
			Zinc		306,158
1968	549,109	548,550	Silver	1,589,674	
			Gold	114,708	
			Cadmium		6,956
			Copper		5,957,639
			Lead		59,460
			Zinc		1,380,550
1967	570,023	569,589	Silver	1,422,433	
			Gold	97,290	
			Cadmium		2,051
			Copper		5,748,291
			Lead		7,860
			Zinc		367,657
1966	458,831	456,933	Silver	1,093,084	
			Gold	115,610	
			Cadmium		4,960
			Copper		4,155,166
			Lead		46,442
			Zinc		1,011,097
1965	207,245	205,027	Silver	596,991	
			Gold	38,817	
			Cadmium		1,296
			Copper		2,299,243
			Lead		5,220
			Zinc		313,106
1964	402,120	403,475	Silver	1,407,380	
			Gold	275,386	
			Cadmium		9,518
			Copper		5,435,476
			Lead		51,808
			Zinc		1,921,704
1963	447,875	447,875	Silver	1,637,573	
			Gold	304,125	
			Cadmium		19,173
			Copper		6,017,771
			Lead		175,209
			Zinc		3,837,078
1962	454,860	454,860	Silver	1,790,817	
			Gold	346,861	
			Cadmium		13,950
			Copper		5,867,399
			Lead		75,230
			Zinc		3,491,305
1961	418,755	418,755	Silver	1,723,013	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>092GNW003</u>	NAME:	<u>BRITANNIA</u>	STATUS:	Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1961	418,755	418,755	Gold	99,872	
			Copper		6,185,700
			Lead		53,700
			Zinc		2,926,949
1960	371,718	371,718	Silver	2,425,754	
			Gold	267,175	
			Cadmium		21,426
			Copper		8,256,866
			Lead		190,325
			Zinc		5,540,872
1959	273,012	273,012	Silver	898,503	
			Gold	98,721	
			Cadmium		7,281
			Copper		3,096,541
			Lead		29,274
			Zinc		1,528,565
1958	60,657	60,657	Silver	600,350	
			Gold	80,401	
			Cadmium		8,434
			Copper		2,034,387
			Lead		77,875
			Zinc		1,585,953
1957	770,388	770,388	Silver	3,051,298	
			Gold	339,085	
			Cadmium		38,682
			Copper		7,622,680
			Lead		909,753
			Zinc		8,948,214
1956	757,004	757,004	Silver	2,797,342	
			Gold	285,059	
			Cadmium		33,268
			Copper		7,045,316
			Lead		558,094
			Zinc		8,335,914
1955	797,104	797,104	Silver	2,795,289	
			Gold	341,169	
			Cadmium		34,876
			Copper		7,540,656
			Lead		614,700
			Zinc		8,791,396
1954	831,357	831,357	Silver	3,078,886	
			Gold	359,831	
			Copper		8,188,086
			Lead		498,441
			Zinc		9,275,196
1953	761,477	761,477	Silver	3,158,727	
			Gold	472,299	
			Cadmium		1,226
			Copper		7,784,638
			Lead		532,257
			Zinc		7,459,997
1952	752,644	752,644	Silver	3,017,520	
			Gold	331,838	
			Cadmium		59,329
			Copper		6,466,355
			Lead		1,018,926
			Zinc		12,968,545
1951	722,629	722,629	Silver	5,848,484	
			Gold	454,695	
			Cadmium		72,481
			Copper		7,233,866
			Lead		1,787,238
			Zinc		15,141,259
1950	778,994	778,994	Silver	2,967,444	
			Gold	417,464	
			Cadmium		49,117
			Copper		6,739,598
			Lead		571,146
			Zinc		9,977,714
1949	798,845	798,845	Silver	2,579,061	
			Gold	309,972	
			Cadmium		31,980
			Copper		8,136,658
			Lead		432,467

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>092GNW003</u>	NAME:	<u>BRITANNIA</u>	STATUS:	Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1949	798,845	798,845	Zinc		6,039,677
1948	725,292	725,292	Silver	1,937,064	
			Gold	366,953	
			Cadmium		16,162
			Copper		7,238,185
			Lead		224,560
			Zinc		2,999,150
1947	721,184	721,185	Silver	2,189,682	
			Gold	317,282	
			Cadmium		10,511
			Copper		7,753,931
			Lead		328,605
			Zinc		1,935,516
1946	395,938	395,938	Silver	887,400	
			Gold	149,294	
			Copper		3,245,186
			Lead		120,786
1945	513,917	513,917	Silver	1,427,037	
			Gold	243,599	
			Copper		5,372,696
			Lead		52,231
1944	550,402	550,402	Silver	1,943,782	
			Gold	257,751	
			Copper		6,245,458
			Lead		47,769
1943	770,329	770,329	Silver	2,411,136	
			Gold	339,707	
			Copper		7,627,006
			Lead		66,292
1942	871,702	871,702	Silver	1,970,064	
			Gold	343,657	
			Copper		8,246,745
			Lead		73,609
1941	1,615,648	1,615,648	Silver	4,749,397	
			Gold	639,882	
			Copper		13,226,716
			Lead		252,100
1940	1,927,865	1,927,865	Silver	6,535,984	
			Gold	684,764	
			Copper		17,918,114
			Lead		197,490
1939	1,916,675	1,916,675	Silver	6,646,836	
			Gold	691,669	
			Copper		17,211,228
			Lead		135,456
1938	2,002,139	2,002,139	Silver	5,301,009	
			Gold	387,201	
			Copper		15,435,290
			Lead		244,879
1937	1,919,661	1,919,661	Silver	4,843,981	
			Gold	373,796	
			Copper		14,997,923
			Lead		408,524
1936	1,190,070	1,190,070	Silver	2,929,685	
			Gold	405,365	
			Copper		9,001,748
			Lead		428,400
			Zinc		329,940
1935	741,393	741,393	Silver	2,219,417	
			Gold	430,030	
			Copper		6,682,601
			Lead		673,391
			Zinc		1,635,843
1934	713,417	689,182	Silver	1,801,268	
			Gold	437,868	
			Copper		4,436,066
			Lead		978,557
			Zinc		2,864,994
1933	598,231	564,917	Silver	1,401,004	
			Gold	398,709	
			Copper		3,624,679
			Lead		881,876

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNW003		NAME: BRITANNIA		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1933	598,231	564,917	Zinc		4,252,259	
1932	734,144	734,144	Silver	1,943,004		
			Gold	275,821		
			Copper		5,321,825	
			Lead		602,776	
1931	1,834,609	1,785,778	Silver	4,451,150		
			Gold	165,312		
			Copper		12,934,846	
			Lead		138,215	
1930	2,009,948	1,952,838	Silver	6,568,021		
			Gold	391,898		
			Copper		20,497,036	
			Lead		279,763	
1929	1,799,636	1,742,093	Silver	6,529,764		
			Gold	444,462		
			Copper		19,482,237	
			Lead		877,782	
1928	1,507,121	1,464,126	Silver	6,293,537		
			Gold	475,161		
			Copper		19,104,241	
			Lead		854,519	
1927	1,224,317	1,224,322	Silver	5,413,913		
			Gold	321,481		
			Copper		15,834,453	
1926	1,077,396	1,049,126	Silver	4,849,207		
			Gold	310,874		
			Copper		14,394,265	
1925	936,750	901,839	Silver	4,289,695		
			Gold	256,009		
			Copper		12,698,792	
1924	735,140	784,167	Silver	3,909,243		
			Gold	145,686		
			Copper		11,974,113	
1923	619,160	619,160	Silver	3,389,107		
			Gold	151,596		
			Copper		10,051,052	
1921	42,987		Silver	247,051		
			Gold	20,093		
			Copper		640,186	
1920	644,506	639,063	Silver	2,820,171		
			Gold	187,022		
			Copper		7,348,732	
1919	558,188	553,335	Silver	2,950,742		
			Gold	135,298		
			Copper		7,543,133	
1918	662,833	662,241	Silver	2,904,554		
			Gold	94,864		
			Copper		8,014,684	
1917	600,901	600,553	Silver	2,703,628		
			Gold	30,481		
			Copper		7,158,027	
1916	400,359	366,558	Silver	2,858,521		
			Gold	24,634		
			Copper		7,238,262	
1915	200,336	193,365	Silver	1,564,668		
			Gold	12,379		
			Copper		4,108,639	
1914	217,970	206,038	Silver	2,131,022		
			Gold	6,625		
			Copper		5,371,064	
1913	212,526	195,153	Silver	2,248,747		
			Gold	2,768		
			Copper		5,972,420	
1912	175,117	153,268	Silver	2,452,689		
			Copper		6,502,089	
1911	107,871	96,981	Silver	1,434,470		
			Gold	342		
			Copper		3,939,223	
1910	23,938	23,938	Silver	276,101		
			Gold	7,838		

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNW003		NAME: BRITANNIA		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1910	23,938	23,938	Copper		789,165	
1909	15,627	15,627	Silver	38,070		
			Gold	9,424		
			Copper		97,241	
1908	15,988	9,480	Silver	105,097		
			Gold	10,668		
			Copper		276,892	
1907	52,049	24,249	Silver	385,584		
			Gold	51,102		
			Copper		853,289	
1906	80,629	48,527	Silver	141,052		
			Gold	87,679		
			Copper		1,193,631	
1905	15,496	11,793	Silver	109,762		
			Gold	12,721		
			Copper		284,851	

SUMMARY TOTALS: 092GNW003

NAME: **BRITANNIA**

	<u>Metric</u>	<u>Imperial</u>
Mined:	47,884,557 tonnes	52,783,688 tons
Milled:	47,402,533 tonnes	52,252,348 tons
Recovery:		
Silver:	180,845,883 grams	5,814,322 ounces
Gold:	15,350,561 grams	493,531 ounces
Cadmium:	444,802 kilograms	980,620 pounds
Copper:	516,960,095 kilograms	1,139,701,599 pounds
Lead:	15,563,005 kilograms	34,310,543 pounds
Zinc:	125,290,668 kilograms	276,218,563 pounds

Comments: 1988: Custom ore from tailings.
 1977: Copper precipitate clean-up, 1975-1977.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNW009		NAME: MCNAB CREEK SLATE		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1963	5,641	5,641	Slate		5,641,000
1962	4,875	4,875	Slate		4,875,000
1956	445		Slate		445,428
1955	1,570		Slate		1,570,337

SUMMARY TOTALS: 092GNW009

NAME: **MCNAB CREEK SLATE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	12,531 tonnes	13,813 tons
Milled:	10,516 tonnes	11,592 tons
Recovery: Slate:	12,531,765 kilograms	27,627,805 pounds

Comments:

- 1963: Minister of Mines Annual Report 1963, p. 139.
- 1962: Minister of Mines Annual Report 1962, p. 148.
- 1956: Minister of Mines Annual Report 1956, p. 150.
- 1955: Minister of Mines Annual Report 1955, p. 92.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNW011		NAME: CAMBRIAN CHIEFTAN		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1963	449		Silver	9,704	
			Copper		6,287
1961	353		Silver	35,146	
			Gold	62	
			Copper		24,387
1952	137		Silver	17,418	
			Copper		10,578
1949	482		Silver	63,201	
			Gold	467	
			Copper		33,694

SUMMARY TOTALS: 092GNW011

NAME: **CAMBRIAN CHIEFTAN**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1,421 tonnes	1,566 tons
Milled:		
Recovery:		
Silver:	125,469 grams	4,034 ounces
Gold:	529 grams	17 ounces
Copper:	74,946 kilograms	165,228 pounds

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GNW013		NAME: ASHLU		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1984	36	36	Silver	2,957		
			Gold	3,174		
			Copper		255	
1939	1,077	1,077	Silver	25,225		
			Gold	22,798		
			Copper		3,041	
1938	4,547	4,547	Silver	94,646		
			Gold	72,097		
			Copper		14,163	
1937	5,494	5,494	Silver	72,314		
			Gold	68,333		
			Copper		9,563	
1936	2,517	2,517	Silver	36,733		
			Gold	36,204		
			Copper		4,895	
1935	7	7	Silver	2,146		
			Gold	1,058		
			Copper		294	
1934	5	5	Silver	964		
			Gold	778		
			Copper		109	
1932	5	5	Silver	715		
			Gold	684		
			Copper		58	

SUMMARY TOTALS: 092GNW013

NAME: **ASHLU**

	<u>Metric</u>	<u>Imperial</u>
Mined:	13,688 tonnes	15,088 tons
Milled:	13,688 tonnes	15,088 tons
Recovery:		
Silver:	235,700 grams	7,578 ounces
Gold:	205,126 grams	6,595 ounces
Copper:	32,378 kilograms	71,381 pounds

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MINFILE NUMBER: **092GNW036** NAME: **MAGGIE** STATUS: Developed Prospect

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1984	52	52	Silver	4,275	
			Gold	1,778	
			Lead		157
			Zinc		2,835

SUMMARY TOTALS: 092GNW036

NAME: **MAGGIE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	52 tonnes	57 tons
Milled:	52 tonnes	57 tons
Recovery:		
Silver:	4,275 grams	137 ounces
Gold:	1,778 grams	57 ounces
Lead:	157 kilograms	346 pounds
Zinc:	2,835 kilograms	6,250 pounds

Comments: 1984: Crude ore.

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MINFILE NUMBER:	092GNW038	NAME:	WATTS POINT	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1974	480,710	480,710	Aggregate		480,710,000

SUMMARY TOTALS: 092GNW038

	NAME:	WATTS POINT	
	<u>Metric</u>	<u>Imperial</u>	
	Mined:	480,710 tonnes	529,892 tons
	Milled:	480,710 tonnes	529,892 tons
Recovery:	Aggregate:	480,710,000 kilograms	1,059,783,842 pounds
Comments:	1974:	Geology, Exploration, and Mining in British Columbia 1974	

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MINFILE NUMBER: 092GNW052	NAME: MINERAL HILL	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1990	4,219		Limestone Wollastonite		774,000 3,444,580

SUMMARY TOTALS: 092GNW052

	NAME: MINERAL HILL	
	<u>Metric</u>	<u>Imperial</u>
Mined:	4,219 tonnes	4,651 tons
Milled:		tons
Recovery:		
Limestone:	774,000 kilograms	1,706,377 pounds
Wollastonite:	3,444,580 kilograms	7,593,997 pounds

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092GNW067	NAME: SQUAMISH	STATUS: Producer
Production Year	Tonnes Mined	Tonnes Milled
1990	350	
		Commodity
		Dimension Stone
		Grams Recovered
		350,000
		Kilograms Recovered

SUMMARY TOTALS: 092GNW067

	NAME: SQUAMISH	
	<u>Metric</u>	<u>Imperial</u>
	350 tonnes	386 tons
	Milled: tonnes	tons
Recovery:		
	Dimension Stone: 350,000 kilograms	771,618 pounds
Comments:		
	1990: J. Grinnell, personal communication, 1990.	

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092GNW099	NAME: GARIBALDI OBSIDIAN	STATUS: Showing
Production Year	Tonnes Mined	Tonnes Milled
1990	350	Dimension Stone
		Grams Recovered
		350,000
		Kilograms Recovered

SUMMARY TOTALS: 092GNW099

	NAME: GARIBALDI OBSIDIAN	
	<u>Metric</u>	<u>Imperial</u>
	350 tonnes	386 tons
Mined:		
Milled:		
Recovery:	Dimension Stone: 350,000 kilograms	771,618 pounds
Comments:	1990: J. Grinnell, personal communication, 1990.	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: **092GSE001** NAME: **GILLEY QUARRY** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1972	311,827		Dimension Stone		311,827
1969	934,584		Dimension Stone		934,584
1968	367,682		Dimension Stone		367,682
1967	86,430		Dimension Stone		86,430
1966	78,925		Dimension Stone		78,925
1965	99,379		Dimension Stone		99,379
1963	21,570		Dimension Stone		21,570
1962	40,825		Dimension Stone		40,825
1961	54,430		Dimension Stone		54,430
1960	40,825		Dimension Stone		40,825

SUMMARY TOTALS: 092GSE001

NAME: **GILLEY QUARRY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,036,477 tonnes	2,244,832 tons
Milled:		
Recovery: Dimension Stone:	2,036,477 kilograms	4,489,662 pounds

Comments: 1972: All production records for all years are not available.

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MINFILE NUMBER: 092GSE004	NAME: SUMAS FIRECLAY	STATUS: Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1998	25,000	25,000	Clay		25,000,000
1988	30,000		Clay		30,000,000

SUMMARY TOTALS: 092GSE004

NAME: **SUMAS FIRECLAY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	55,000 tonnes	60,627 tons
Milled:	25,000 tonnes	27,558 tons
Clay:	55,000,000 kilograms	121,254,210 pounds

Recovery:

Comments:

1998: Approximate yearly production.
1988: Mining in B.C. 1988, p. 82.

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MINFILE NUMBER:	092GSE007	NAME:	PITT RIVER QUARRY	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1964	29,484	29,484	Granite		29,483,502
1963	21,570	21,570	Granite		21,570,130

SUMMARY TOTALS: 092GSE007

NAME: **PITT RIVER QUARRY**

		<u>Metric</u>		<u>Imperial</u>	
	Mined:	51,054 tonnes		56,277 tons	
	Milled:	51,054 tonnes		56,277 tons	
Recovery:	Granite:	51,053,632 kilograms		112,553,960 pounds	

Comments:

1964: Minister of Mines Annual Report 1964, page 182.
1963: Minister of Mines Annual Report 1963, page 139.

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MINFILE NUMBER: 092GSE009	NAME: VIKING (L.3177)	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1916	179		Silver	7,216	
			Copper		5,151
1897	3		Gold	249	

SUMMARY TOTALS: 092GSE009

NAME: **VIKING (L.3177)**

	Mined:	182 tonnes	Imperial	201 tons
	Milled:	tonnes		tons
Recovery:	Silver:	7,216 grams		232 ounces
	Gold:	249 grams		8 ounces
	Copper:	5,151 kilograms		11,356 pounds

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MINFILE NUMBER: 092GSE024	NAME: SUMAS	STATUS: Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1986	5,500		Shale		5,500,000
SUMMARY TOTALS: 092GSE024		NAME: SUMAS			
		<u>Metric</u>	<u>Imperial</u>		
	Mined:	5,500 tonnes	6,063 tons		
Recovery:	Milled:				
	Shale:	5,500,000 kilograms	12,125,421 pounds		

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MINFILE NUMBER:	092GSE041	NAME:	ORO	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1939	1		Silver	93	
			Gold	62	
			Copper		2
			Lead		7

SUMMARY TOTALS: 092GSE041

NAME: **ORO**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1 tonnes	1 tons
Milled:	tonnes	tons
Silver:	93 grams	3 ounces
Gold:	62 grams	2 ounces
Copper:	2 kilograms	4 pounds
Lead:	7 kilograms	15 pounds

Recovery:

Comments:

1939: Bulk sample (612 kilograms) submitted by F.C. Macey.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GSW002	NAME: SEHEL T QUARRY	STATUS: Past Producer
Production Year	Tonnes Mined	Tonnes Milled
		Commodity
		Grams Recovered
		Kilograms Recovered
1966	270	Dimension Stone
1963	18	Dimension Stone
		270,000
		18,000

SUMMARY TOTALS: 092GSW002

NAME: **SEHEL T QUARRY**

		<u>Metric</u>		<u>Imperial</u>
Mined:	288	tonnes	317	tons
Milled:		tonnes		tons
Recovery:	Dimension Stone:	288,000	kilograms	634,931
				pounds

Comments: 1966: Minister of Mines Annual Report 1966, p. 262.
 1963: Minister of Mines Annual Report 1963, p. 139.

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MINFILE PRODUCTION REPORT
GEOLOGICAL SURVEY BRANCH
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REPORT: RGEN0200

MINFILE NUMBER: 092GSW004	NAME: BOWENA	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1907	54		Silver Copper	5,754	2,268

SUMMARY TOTALS: 092GSW004

	NAME: BOWENA		
	<u>Metric</u>	<u>Imperial</u>	
	54 tonnes	60 tons	
	Milled:	tons	
Recovery:	Silver:	5,754 grams	185 ounces
	Copper:	2,268 kilograms	5,000 pounds

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MINFILE PRODUCTION REPORT
GEOLOGICAL SURVEY BRANCH
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REPORT: RGEN0200

MINFILE NUMBER: **092GSW012** NAME: **BLUE FLAME** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1957	2		Coal		1,814
1956	307		Coal		307,000
1955	416		Coal		416,000
1954	257		Coal		257,000
1953	256		Coal		255,800
1952	354		Coal		354,000

SUMMARY TOTALS: 092GSW012

NAME: **BLUE FLAME**

<u>Metric</u>	<u>Imperial</u>
1,592 tonnes	1,755 tons
Milled:	tons

Recovery:

Mined:

Coal:

1,591,614 kilograms

3,508,907 pounds

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: 092GSW025		NAME: ALEXANDRIA		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1901	69,515		Coal		69,514,720
1900	113,947		Coal		113,947,440
1897	3,429		Coal		3,429,000

SUMMARY TOTALS: 092GSW025

NAME: **ALEXANDRIA**

	<u>Mined:</u>	<u>Milled:</u>	<u>Coal:</u>	<u>Metric</u>	<u>Imperial</u>
Recovery:				186,891 tonnes	206,012 tons
Comments:				186,891,160 kilograms	412,024,363 pounds

1901: Alexandria.
 1900: Alexandria. Production not reported for 1898 and 1899.
 1897: Alexandria.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: **092GSW026** NAME: **BEBAN'S** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1946	21		Coal		21,340
1945	2,081		Coal		2,080,770
1944	410		Coal		409,450
1943	1,855		Coal		1,855,220
1942	2,501		Coal		2,501,400
1941	11,067		Coal		11,067,288
1940	33,343		Coal		33,343,088
1939	17,743		Coal		17,743,424
1938	8,326		Coal		8,326,120
1937	11,088		Coal		11,087,608
1936	2,436		Coal		2,435,352

SUMMARY TOTALS: 092GSW026

NAME: **BEBAN'S**

	<u>Metric</u>	<u>Imperial</u>
Mined:	90,871 tonnes	100,168 tons
Milled:		
Recovery:		
Coal:	90,871,060 kilograms	200,336,338 pounds

Comments:

- 1946: Lake Road closed in January.
- 1945: Lake Road.
- 1944: Lake Road.
- 1943: Lake Road.
- 1942: Lake Road.
- 1941: Beban (9882 tonnes) closed July 2, 1941; Lake Road (202 tonnes).
- 1940: Beban.
- 1939: Beban.
- 1938: Beban.
- 1937: Beban.
- 1936: Beban.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: **092GSW027** NAME: **OLD NO. 1 SLOPE** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1965	380		Coal		380,000
1964	639		Coal		639,000
1963	478		Coal		478,000
1962	771		Coal		771,000
1961	774		Coal		774,000
1960	43		Coal		43,000
1959	690		Coal		690,000
1958	640		Coal		639,500
1957	1,208		Coal		1,208,000
1956	1,417		Coal		1,417,000
1955	1,417		Coal		1,417,000
1954	1,291		Coal		1,291,000
1953	794		Coal		794,000
1952	1,025		Coal		1,025,000
1951	1,512		Coal		1,512,000
1950	2,031		Coal		2,031,200
1949	2,335		Coal		2,335,000
1948	2,516		Coal		2,515,600
1947	3,385		Coal		3,385,312
1946	3,263		Coal		3,263,392
1945	2,047		Coal		2,047,240
1944	2,757		Coal		2,757,424
1943	3,936		Coal		3,936,000
1942	4,448		Coal		4,448,050
1941	6,149		Coal		6,148,832
1940	5,182		Coal		5,181,600
1939	2,618		Coal		2,618,232
1938	4,564		Coal		4,563,872
1937	3,718		Coal		3,717,544
1936	1,724		Coal		1,724,152
1935	1,055		Coal		1,054,608
1934	623		Coal		622,808
1933	44		Coal		43,688

SUMMARY TOTALS: 092GSW027

NAME: **OLD NO. 1 SLOPE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	65,474 tonnes	72,173 tons
Milled:		tons
Recovery:	Coal: 65,473,054 kilograms	144,343,335 pounds

Comments:
 1961: Operated as Midan mine from 1961 to 1965.
 1954: Production is from open pit strip mining.
 1953: Production is from open pit strip mining.
 1933: Operated as Chambers mine from 1933 to 1960.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GSW028		NAME: EXTENSION COLLIERY		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1967	133		Coal		133,356
1966	217		Coal		217,724
1965	216		Coal		215,910
1964	185		Coal		185,066
1963	465		Coal		464,479
1962	696		Coal		695,811
1961	574		Coal		574,248
1960	327		Coal		326,587
1959	414		Coal		413,677
1958	1,183		Coal		1,182,969
1957	661		Coal		661,338
1956	496		Coal		496,230
1955	431		Coal		430,913
1954	221		Coal		221,353
1951	285		Coal		284,856
1950	430		Coal		430,006
1949	527		Coal		527,075
1948	552		Coal		551,569
1947	1,984		Coal		1,984,248
1946	2,017		Coal		2,016,760
1945	2,222		Coal		2,222,000
1944	2,843		Coal		2,842,768
1943	2,021		Coal		2,020,824
1942	3,376		Coal		3,376,168
1941	1,495		Coal		1,494,536
1940	690		Coal		689,864
1938	9		Coal		9,144
1931	35,254		Coal		35,254,200
1930	136,330		Coal		136,330,000
1929	105,878		Coal		105,878,370
1928	164,752		Coal		164,751,510
1927	211,162		Coal		211,162,400
1926	178,624		Coal		178,624,000
1925	215,705		Coal		215,704,920
1924	240,592		Coal		240,591,840
1923	215,684		Coal		215,683,590
1922	227,537		Coal		227,537,260
1921	208,482		Coal		208,482,180
1920	199,548		Coal		199,547,480
1919	229,325		Coal		229,325,420
1918	228,272		Coal		228,271,830
1917	294,021		Coal		294,021,250
1916	261,063		Coal		261,063,230
1915	169,643		Coal		169,642,530
1914	131,283		Coal		131,283,450
1913	58,781		Coal		58,780,680
1912	270,018		Coal		270,018,250
1911	336,881		Coal		336,881,210
1910	386,636		Coal		386,564,710
			Fireclay		66,040
1907	441,026		Coal		440,530,480
			Fireclay		495,808
1906	403,163		Coal		401,005,040
			Fireclay		2,157,984
1901	412,482		Coal		412,481,770
1897	6,096		Coal		6,096,000

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: **092GSW028**

NAME: **EXTENSION COLLIERY**

STATUS: Past Producer

SUMMARY TOTALS: 092GSW028

NAME: **EXTENSION COLLIERY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	5,792,908 tonnes	6,385,588 tons
Milled:	tonnes	tons
Recovery:		
Coal:	5,790,183,079 kilograms	12,765,165,000 pounds
Fireclay:	2,719,832 kilograms	5,996,201 pounds

Comments:

- 1967: Undun No. 4.
- 1966: Undun No. 4.
- 1965: Undun No. 4.
- 1964: Undun No. 4.
- 1963: Undun No. 3.
- 1962: Undun No. 3.
- 1961: Undun No. 3.
- 1960: Undun No. 2 (106 tonnes) & from Sept., Undun No. 3 (220.4 tonnes).
- 1959: Undun No.1(223.2 t.); from Sept. Undun No.2(184.2),Extension (6.4)
- 1958: Undun (419 tonnes) and Extension (764 tonnes).
- 1957: Undun (488 tonnes) and Extension (173 tonnes).
- 1955: Undun.
- 1954: Undun began August.
- 1951: Deer Home No. 2, closed in 1952.
- 1950: Deer Home No. 2.
- 1949: Deer Home No. 2.
- 1948: Deer Home No. 2.
- 1947: Deer Home No. 2.
- 1946: Deer Home No. 2.
- 1945: Deer Home No. 2.
- 1944: Deer Home No. 2.
- 1943: Deer Home No. 1 and No. 2.
- 1942: Deer Home.
- 1941: Deer Holme.
- 1940: Neville.
- 1938: Berkley Creek.
- 1931: No. 1 and No. 2 closed April 10, 1931.
- 1930: No. 1 and No. 2.
- 1929: No. 1 and No. 2.
- 1928: No. 1 and No. 2.
- 1927: No. 1, No. 2 and No. 8 (092GSW042).
- 1926: No. 1, No. 2, No. 3, No. 6 and No. 8 (092GSW042).
- 1925: No. 1, No. 2, No. 3 and No. 6.
- 1924: No. 1, No. 2, No. 3 and No. 6.
- 1923: No. 1, No. 2, No. 3 and No. 6.
- 1922: No. 1, No. 2 and No. 3.
- 1921: No. 1, No. 2 and No. 3.
- 1920: No. 1, No. 2 and No. 3.
- 1919: No. 1, No. 2 and No. 3.
- 1918: No. 1, No. 2 and No. 3.
- 1917: No. 1, No. 2, No. 3 and No. 4.
- 1916: No. 1, No. 2 and No. 3.
- 1915: No. 1, No. 2 and No. 3.
- 1914: No. 1, No. 2, No. 3 and No. 4.
- 1913: No. 1, No. 2 and No. 3.
- 1912: No. 1, No. 2, No. 3 and No. 4.
- 1911: No. 1, No. 2, No. 3 and No. 4.
- 1910: No. 1, No. 2, No. 3 and No. 4.
- 1907: No. 1, No. 2 and No. 3.
- 1906: No. 1, No. 2 and No. 3. Production not reported 1902 to 1905.
- 1901: No. 1, No. 2, No. 3 and Tunnel.
- 1897: No. 1. Production not reported 1898 to 1899.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092GSW029		NAME: DOUGLAS SEAM MINES		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1912	759		Coal		758,952
1911	1,439		Coal		1,438,656
1882	52,252		Coal		52,252,118
1880	78,979		Coal		78,978,506
1878	83,449		Coal		83,449,160
1877	96,327		Coal		96,326,706
1876	74,980		Coal		74,979,530
1875	60,557		Coal		60,556,648
1874	52,556		Coal		52,556,460
1868	44,710		Coal		44,710,000
1867	31,740		Coal		31,740,000
1866	184,400		Coal		184,400,000

SUMMARY TOTALS: 092GSW029

NAME: **DOUGLAS SEAM MINES**

	<u>Metric</u>	<u>Imperial</u>
Mined:	762,148 tonnes	840,124 tons
Milled:	tonnes	tons
Recovery:	Coal: 762,146,736 kilograms	1,680,245,461 pounds

Comments:

- 1912: Douglas Mine.
- 1911: Douglas mine began operations on March 1, 1911.
- 1882: Chase River, Douglas and Southfield. See No. 1 (092GSE041) also.
- 1880: Chase River, Douglas and Fitzwilliam (092GSW045). No 1879 or 1881.
- 1878: Douglas, Chase River and Fitzwilliam (092GSW045).
- 1877: Douglas, New Douglas and Fitzwilliam (092GSW045).
- 1876: Douglas, New Douglas and Fitzwilliam (092GSW045).
- 1875: Douglas, New Douglas, Chase River; Fitzwilliam & Newcastle.
- 1874: Douglas; Fitzwilliam and Newcastle (092GSW045).
- 1867: Vancouver Coal Company.
- 1866: Hudson's Bay Company pits at Nanaimo and Southfield.

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MINFILE NUMBER: **092GSW030** NAME: **EAST WELLINGTON** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1940	724		Coal		724,408
1939	853		Coal		853,440
1938	726		Coal		726,440
1937	243		Coal		242,824
1936	50		Coal		49,784
1935	57		Coal		56,896
1934	246		Coal		245,872
1933	185		Coal		184,912
1932	1,358		Coal		1,358,400
1931	91		Coal		91,440
1930	428		Coal		427,736
1928	5,443		Coal		5,442,712
1927	48,213		Coal		48,213,264
1926	44,170		Coal		44,169,584
1925	55,228		Coal		55,227,728
1924	54,586		Coal		54,585,616
1923	29,145		Coal		29,145,000
1919	37,587		Coal		37,586,920
1918	14,293		Coal		14,293,088
1917	62,571		Coal		62,571,376
1916	79,698		Coal		79,698,088
1915	48,744		Coal		48,743,616
1914	108,873		Coal		108,872,520
1913	109,324		Coal		109,323,630
1912	89,665		Coal		89,665,048
1911	74,085		Coal		74,084,688
1910	29,913		Coal		29,913,072
1909	9,485		Coal		9,485,376
1908	1,729		Coal		1,729,232
1907	158		Coal		158,496
1893	27,912		Coal		27,911,552
1892	34,188		Coal		34,188,400
1891	42,333		Coal		42,332,656
1890	45,316		Coal		45,315,632
1889	52,194		Coal		52,193,952
1888	30,573		Coal		30,573,472
1887	35,998		Coal		35,997,900
1886	28,477		Coal		28,477,464
1885	7,360		Coal		7,359,904
1884	5,763		Coal		5,763,260
1883	6,370		Coal		6,370,320

SUMMARY TOTALS: 092GSW030

NAME: **EAST WELLINGTON**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1,224,355 tonnes	1,349,620 tons
Milled:		
Recovery:	Coal: 1,224,355,718 kilograms	2,699,241,552 pounds

Comments:

- 1940: Lewis, closed in October 1940.
- 1939: Lewis.
- 1938: Lewis.
- 1937: Jingle Pot (58 tonnes) and Lewis (185 tonnes).
- 1936: Jingle Pot.
- 1935: Jingle Pot.
- 1934: Jingle Pot.
- 1933: Jingle Pot.
- 1932: Little Jingle Pot.
- 1931: Little Jingle Pot.
- 1930: Little Jingle Pot.
- 1928: Little Jingle Pot.
- 1927: East Wellington.

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MINFILE NUMBER: **092GSW030**

NAME: **EAST WELLINGTON**

STATUS: Past Producer

Comments:

1926: East Wellington.
1925: East Wellington.
1924: East Wellington.
1923: East Wellington opened in September 1922.
1919: New East Wellington.
1918: New East Wellington.
1917: New East Wellington.
1916: New East Wellington.
1915: New East Wellington.
1914: New East Wellington.
1913: New East Wellington.
1912: New East Wellington.
1911: New East Wellington.
1910: New East Wellington.
1909: New East Wellington.
1908: New East Wellington.
1907: New East Wellington.
1893: East Wellington.
1892: East Wellington.
1891: East Wellington.
1890: East Wellington.
1889: East Wellington.
1888: East Wellington.
1887: East Wellington.
1886: East Wellington.
1885: East Wellington.
1884: East Wellington.
1883: East Wellington.

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MINFILE NUMBER: 092GSW032		NAME: MORDEN		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1930	3,049		Coal		3,049,000	
1921	29		Coal		29,464	
1920	96,295		Coal		96,295,464	
1919	66,896		Coal		66,896,488	
1918	83,951		Coal		83,951,064	

SUMMARY TOTALS: 092GSW032

NAME: **MORDEN**

	<u>Metric</u>	<u>Imperial</u>
Mined:	250,220 tonnes	275,820 tons
Milled:		
Coal:	250,221,480 kilograms	551,643,780 pounds

Recovery:

Comments:

1930: Morden.
 1921: Morden.
 1918: Morden. Production for 1913 & 1917 with Fiddick (092GSW034).

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MINFILE NUMBER:	<u>092GSW033</u>	NAME:	<u>HAREWOOD COLLIERY</u>	STATUS:	Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1951	530		Coal		529,800
1950	1,084		Coal		1,084,000
1949	1,139		Coal		1,138,500
1948	910		Coal		909,900
1947	575		Coal		575,056
1946	746		Coal		745,744
1945	270		Coal		270,256
1944	682		Coal		681,736
1943	656		Coal		656,336
1942	836		Coal		836,168
1941	694		Coal		693,928
1923	2,461		Coal		2,460,752
1922	44,496		Coal		44,495,720
1921	44,442		Coal		44,441,872
1920	159,797		Coal		159,797,490
1919	236,721		Coal		236,720,880
1918	232,229		Coal		232,229,150
1917	48,260		Coal		48,260,000
1877	9,144		Coal		9,144,000
1876	12,048		Coal		12,047,728

SUMMARY TOTALS: 092GSW033

NAME: **HAREWOOD COLLIERY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	797,720 tonnes	879,336 tons
Milled:		
Coal:	797,719,016 kilograms	1,758,668,892 pounds

Recovery:

Comments:

- 1951: Furnace Portal (326 tonnes) and Biggs (204 tonnes).
- 1950: Furnace Portal.
- 1949: Furnace Portal.
- 1948: Furnace Portal.
- 1947: Furnace Portal.
- 1946: Furnace Portal.
- 1945: Furnace Portal (168 tonnes) and Lewis No. 3 (102 tonnes).
- 1944: Lewis No. 3.
- 1943: Lewis No. 2 and No. 3.
- 1942: Lewis No. 2.
- 1941: Lewis No. 2.
- 1923: Harewood closed in January 1923.
- 1922: Harewood.
- 1921: Harewood.
- 1920: Harewood.
- 1919: Harewood.
- 1918: Harewood.
- 1917: Harewood reopened July 14, 1917. No data prior to 1917.
- 1877: Harewood.
- 1876: Harewood.

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MINFILE NUMBER: **092GSW034** NAME: **FIDDICK COLLIERY** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1959	14		Coal		13,608
1958	16		Coal		16,329
1957	6		Coal		6,350
1956	82		Coal		81,647
1941	230		Coal		229,616
1940	385		Coal		385,064
1939	386		Coal		386,080
1938	14		Coal		14,224
1937	502		Coal		501,904
1936	3,100		Coal		3,100,000
1935	5,148		Coal		5,148,072
1934	3,235		Coal		3,234,944
1933	4,823		Coal		4,823,000
1932	1,472		Coal		1,472,184
1931	1,728		Coal		1,728,216
1930	1,976		Coal		1,976,120
1929	3,824		Coal		3,824,224
1928	1,907		Coal		1,907,032
1927	280		Coal		280,416
1917	152,947		Coal		152,946,600
1916	155,562		Coal		155,561,790
1915	131,502		Coal		131,501,890
1914	132,735		Coal		132,735,320
1913	78,670		Coal		78,669,900
1912	149,451		Coal		149,450,550
1911	208,329		Coal		208,328,760
1910	174,723		Coal		174,722,530
1909	68,118		Coal		68,117,720
1908	19,459		Coal		19,459,448
1907	584		Coal		584,200
1878	356		Coal		355,600

SUMMARY TOTALS: 092GSW034

NAME: **FIDDICK COLLIERY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1,301,564 tonnes	1,434,729 tons
Milled:		
Recovery:	Coal: 1,301,563,338 kilograms	2,869,455,169 pounds

Comments:

- 1959: Big Flame.
- 1958: Big Flame.
- 1957: Big Flame.
- 1956: Big Flame.
- 1941: Big Flame.
- 1940: Big Flame.
- 1939: Fiddick (110 tonnes) and Sunshine (Clifford) (276 tonnes).
- 1938: Fiddick.
- 1937: Richardson (Ida Clara Colliery).
- 1936: Fiddick (690 tonnes) and Richardson (2410 tonnes).
- 1935: Fiddick (3215 tonnes) and Richardson (1933 tonnes).
- 1934: Fiddick (1868 tonnes) and Richardson (1367 tonnes).
- 1933: Fiddick (1251 tonnes) and Richardson (3572 tonnes).
- 1932: Fiddick (987 tonnes) and Richardson (486 tonnes).
- 1931: Fiddick (1609 tonnes) and Richardson (119 tonnes).
- 1930: Fiddick (1584 tonnes) and Richardson (392 tonnes).
- 1929: Fiddick (3046 tonnes) and Richardson (778 tonnes).
- 1928: Fiddick (1834 tonnes) and Richardson (73 tonnes).
- 1927: Fiddick mine.
- 1917: Fiddick and Morden (092GSW032).
- 1916: Fiddick.
- 1915: Fiddick.
- 1914: Fiddick.
- 1913: Fiddick and Morden (092GSW032).
- 1912: Fiddick and Richardson slopes.
- 1911: Fiddick and Richardson slopes.
- 1910: Fiddick and Richardson slopes.

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MINFILE NUMBER: **092GSW034**

NAME: **FIDDICK COLLIERY**

STATUS: Past Producer

Comments:

1909: Fiddick and Richardson slopes.
1908: Fiddick and Richardson slopes.
1907: Fiddick and Richardson slopes.
1878: South Wellington.

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MINFILE NUMBER: 092GSW036		NAME: EXTENSION PROSPECT		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1947	1,618		Coal		1,618,488
1946	3,116		Coal		3,116,072
1945	3,570		Coal		3,570,224
1944	3,847		Coal		3,846,576
1943	3,196		Coal		3,196,336
1942	4,843		Coal		4,843,272
1941	3,298		Coal		3,297,936

SUMMARY TOTALS: 092GSW036

NAME: **EXTENSION PROSPECT**

	<u>Metric</u>	<u>Imperial</u>
Mined:	23,488 tonnes	25,891 tons
Milled:		tons
Recovery:	Coal: 23,488,904 kilograms	51,784,155 pounds

Comments: 1947: Prospect mine closed on July 18, 1947.

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092GSW037		NAME: RESERVE		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1939	149,709		Coal		148,708,870
1938	116,773		Coal		116,772,940
1937	152,879		Coal		152,878,530
1936	156,984		Coal		156,984,200
1930	37,942		Coal		37,941,504
1929	150,723		Coal		150,722,580
1928	151,729		Coal		151,729,440
1927	183,480		Coal		183,480,450
1926	179,401		Coal		179,401,210
1925	163,696		Coal		163,695,880
1924	144,609		Coal		144,609,310
1923	215,861		Coal		215,861,390
1922	229,470		Coal		229,470,710
1921	167,707		Coal		167,707,050
1920	137,738		Coal		137,738,100
1919	80,214		Coal		80,214,216
1918	108,372		Coal		108,371,640
1917	149,526		Coal		149,525,730
1916	88,194		Coal		88,193,880
1915	29,173		Coal		29,173,424
1914	482		Coal		481,584

SUMMARY TOTALS: 092GSW037

NAME: **RESERVE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,794,662 tonnes	3,080,588 tons
Milled:		
Recovery:	Coal: 2,793,662,638 kilograms	6,158,970,112 pounds

Comments:

- 1939: Closed December 1939.
- 1936: Production in 1935 included with No. 1 (092GSW041).
- 1914: Operations began July 1910.

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MINFILE NUMBER: 092GSW038		NAME: SOUTH WELLINGTON NO. 5		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1935	52,474		Coal		52,474,368
1934	138,690		Coal		138,690,000
1933	160,900		Coal		160,900,000
1932	114,404		Coal		114,403,630
1931	149,749		Coal		149,749,250
1930	77,190		Coal		77,189,584
1929	37,405		Coal		37,405,056
1928	64,289		Coal		64,289,432
1927	74,942		Coal		74,942,192
1926	48,193		Coal		48,192,944
1925	51,889		Coal		51,889,152
1924	21,529		Coal		21,529,040
1923	82,736		Coal		82,735,928
1922	88,746		Coal		88,745,568
1921	92,045		Coal		92,044,520
1920	91,754		Coal		91,753,944
1919	86,876		Coal		86,876,128
1918	29,248		Coal		29,247,600

SUMMARY TOTALS: 092GSW038

NAME: **SOUTH WELLINGTON NO. 5**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1,463,059 tonnes	1,612,746 tons
Milled:	tonnes	tons
Coal:	1,463,058,336 kilograms	3,225,490,595 pounds

Comments:

- 1935: No. 5 and Alexandra (092GSW025), closed May 1935.
- 1934: No. 5 and Alexandra (092GSW025).
- 1933: No. 5 and Alexandra (092GSW025).
- 1932: No. 5 and Alexandra (092GSW025).
- 1931: No. 5 and Alexandra (092GSW025).
- 1930: No. 5; Alexandra (092GSW025) reactivated.
- 1929: No. 5.
- 1928: No. 5.
- 1927: No. 5.
- 1926: No. 5.
- 1925: No. 5.
- 1924: No. 5 closed March to November 1924.
- 1923: No. 5.
- 1921: No. 5.
- 1920: No. 5.
- 1919: No. 5.
- 1918: No. 5 operations began in September 1917.

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092GSW039		NAME: SOUTH WELLINGTON NO. 10		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1952	4,650		Coal		3,388,340
1951	141,314		Coal		104,826,130
1950	194,916		Coal		145,654,900
1949	222,506		Coal		175,685,440
1948	156,291		Coal		126,445,250
1947	217,879		Coal		217,879,160
1946	226,919		Coal		226,918,520
1945	223,506		Coal		223,505,770
1944	263,457		Coal		263,456,920
1943	265,233		Coal		265,232,890
1942	258,427		Coal		258,426,710
1941	233,817		Coal		233,817,160
1940	186,093		Coal		186,092,590
1939	83,916		Coal		83,916,520
1938	19,776		Coal		19,776,440

SUMMARY TOTALS: 092GSW039

NAME: **SOUTH WELLINGTON NO. 10**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,698,700 tonnes	2,974,808 tons
Milled:		
Recovery:	Coal: 2,535,022,740 kilograms	5,588,766,903 pounds
Comments:	1952: Closed January 19, 1952.	

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MINFILE NUMBER: **092GSW040** NAME: **WAKESIAH** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1930	4,271		Coal		4,271,264
1929	61,192		Coal		61,191,650
1928	77,197		Coal		77,196,696
1927	47,873		Coal		47,872,904
1926	40,840		Coal		40,840,152
1925	95,289		Coal		95,288,608
1924	113,878		Coal		113,878,360
1923	105,663		Coal		105,663,000
1922	80,787		Coal		80,787,240
1921	68,140		Coal		68,140,072
1920	64,356		Coal		64,356,488
1919	7,539		Coal		7,538,720

SUMMARY TOTALS: 092GSW040

NAME: **WAKESIAH**

	<u>Metric</u>	<u>Imperial</u>
Mined:	767,025 tonnes	845,500 tons
Milled:		
Recovery:	Coal: 767,025,154 kilograms	1,691,000,529 pounds

Comments:
 1930: Closed January 1930.
 1919: Wakesiah operations began June 17, 1918.

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MINFILE NUMBER: **092GSW041** NAME: **NO. 1 MINE** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1938	148,515		Coal		148,514,810
1937	229,317		Coal		229,317,290
1936	307,364		Coal		307,364,380
1935	363,173		Coal		363,173,260
1934	238,141		Coal		238,141,250
1933	265,861		Coal		265,860,780
1932	357,953		Coal		357,953,050
1931	319,652		Coal		319,651,880
1930	333,568		Coal		333,568,040
1929	312,679		Coal		312,679,080
1928	321,512		Coal		321,512,180
1927	352,840		Coal		352,839,520
1926	328,710		Coal		328,709,520
1925	319,180		Coal		319,180,460
1924	304,320		Coal		304,320,440
1923	336,918		Coal		336,917,790
1922	347,710		Coal		347,709,740
1921	294,802		Coal		294,801,540
1920	274,767		Coal		274,767,040
1919	324,309		Coal		324,309,230
1918	403,031		Coal		403,030,940
1917	471,176		Coal		471,176,090
1916	475,290		Coal		475,289,880
1915	393,201		Coal		393,201,140
1914	315,051		Coal		315,051,440
1913	174,905		Coal		174,905,410
1912	441,474		Coal		441,474,350
1911	418,500		Coal		418,500,000
1910	370,524		Coal		370,524,020
1909	345,813		Coal		345,812,870
1908	277,997		Coal		277,996,900
1907	341,378		Coal		341,378,030
1901	593,675		Coal		593,675,210
1900	588,621		Coal		588,620,610
1899	624,609		Coal		624,609,360
1898	528,598		Coal		528,598,380
1897	324,453		Coal		324,453,190
1896	325,705		Coal		325,704,860
1895	343,610		Coal		343,609,570
1894	400,939		Coal		400,938,840
1893	476,821		Coal		476,820,760
1892	440,321		Coal		440,320,530
1891	535,896		Coal		535,896,310
1890	395,737		Coal		395,737,080
1889	237,613		Coal		237,612,830
1888	262,958		Coal		262,958,470
1887	140,932		Coal		140,932,000
1886	114,565		Coal		114,565,170
1885	140,566		Coal		140,566,240
1884	136,000		Coal		136,000,000
1883	36,236		Coal		36,235,792

SUMMARY TOTALS: 092GSW041

NAME: **NO. 1 MINE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	17,157,486 tonnes	18,912,891 tons
Milled:		
Recovery:		
Coal:	17,157,487,552 kilograms	37,825,774,522 pounds

MINFILE NUMBER: **092GSW041**

NAME: **NO. 1 MINE**

STATUS: Past Producer

Comments:

Comments:

1938: No. 1, closed October 5, 1938.
1937: No. 1.
1936: No. 1.
1935: No. 1 and Reserve (092GSW037).
1934: No. 1.
1933: No. 1.
1932: No. 1.
1931: No. 1.
1930: No. 1.
1929: No. 1.
1928: No. 1.
1927: No. 1.
1926: No. 1.
1925: No. 1 (North side and South side).
1924: No. 1 and Protection.
1923: No. 1 and Protection.
1922: No. 1 and Protection.
1921: No. 1 (North side, South side).
1920: No. 1.
1919: No. 1 and Protection Island.
1918: No. 1 and Protection Island.
1917: No. 1 and Protection Island.
1916: No. 1 and Protection Island.
1915: No. 1 and Protection Island.
1914: No. 1 and Protection Island.
1913: No. 1 and Protection Island.
1912: No. 1 and Protection Island.
1911: No. 1 and Protection Island.
1910: No. 1 and Protection Island.
1909: No. 1.
1908: No. 1.
1907: Production not reported 1901 to 1906 on No. 1 and Protection Isl.
1901: No. 1, Protection Island; Harewood (092GSW033) & Southfield No. 5.
1900: No. 1, Protection Island; Southfield No. 5 (092GSW029); & Harewood
1899: No. 1, Protection Island; Southfield No. 5 (092GSW029).
1898: No. 1, Protection Island; Southfield No. 5 (092GSW029).
1897: No. 1, Protection Island; Southfield No. 5 (092GSW029).
1896: No. 1, Protection Island; Southfield No. 5 (092GSW029).
1895: No. 1, Protection Island; Southfield No. 5 (092GSW029).
1894: No. 1, Protection Island; Southfield No. 5 & Northfield(092GSW048)
1893: No. 1, Protection Island; Southfield No. 5 (092GSW029),Northfield.
1892: No. 1, Protection Island; Southfield No. 5 & Northfield.
1891: No. 1, Protection Island; Southfield No. 5 and Northfield.
1890: No. 1; Southfield (092GSW029); Northfield (092GSW048).
1889: No. 1; No. 3; Southfield (092GSW029); Northfield (092GSW048).
1888: No. 1; No. 3; Southfield (092GSW029).
1887: No. 1; No. 3.
1886: No. 1.
1885: No. 1; New Douglas and Southfield (092GSW029).
1884: No. 1; New Douglas and Southfield (092GSW029).
1883: No. 1 (shaft began May 1881); Chase River & Southfield (092GSW029)

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: 092GSW042		NAME: EXTENSION NO. 8		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1966	146		Coal		146,000
1965	312		Coal		312,000
1964	285		Coal		285,000
1963	437		Coal		437,260
1962	543		Coal		543,000
1961	618		Coal		618,000
1960	754		Coal		754,000
1959	727		Coal		727,000
1958	617		Coal		616,900
1957	771		Coal		771,000
1956	895		Coal		895,400
1955	768		Coal		768,000
1954	681		Coal		681,000
1953	608		Coal		608,000
1952	765		Coal		765,000
1951	738		Coal		738,000
1950	610		Coal		609,600
1949	672		Coal		672,000
1948	607		Coal		606,900
1947	814		Coal		813,816
1946	996		Coal		995,680
1945	455		Coal		455,168
1928	35,206		Coal		35,206,432

SUMMARY TOTALS: 092GSW042

NAME: **EXTENSION NO. 8**

	<u>Metric</u>	<u>Imperial</u>
Mined:	49,025 tonnes	54,041 tons
Milled:	tonnes	tons
Recovery:	Coal: 49,025,156 kilograms	108,081,937 pounds

Comments:

1966: Lewis No. 2 (old No. 8) ceased operations at the end of 1966.
 1965: Lewis No. 2 (old No. 8).
 1964: Lewis No. 2 (old No. 8).
 1963: Lewis (old No. 8).
 1962: Lewis (old No. 8).
 1961: Lewis (old No. 8).
 1960: Lewis (old No. 8).
 1959: Lewis (old No. 8).
 1958: Lewis (old No. 8).
 1957: Lewis (old No. 8).
 1956: Lewis (old No. 8).
 1955: No. 8 Timberlands.
 1954: No. 8 Timberlands.
 1953: No. 8 Timberlands.
 1952: No. 8 Timberlands.
 1951: No. 8 Timberlands.
 1950: No. 8 Timberlands.
 1949: No. 8 Timberlands.
 1948: No. 8 Timberlands.
 1947: No. 8 Timberlands.
 1946: No. 8 Timberlands.
 1945: No. 8 Timberlands.
 1928: Extension No.8 closed Oct.; for prod. 1926-7 Extension(092GSW028).

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: **092GSW043** NAME: **WHITE RAPIDS** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1955	50		Coal		49,895
1954	122		Coal		122,470
1953	122		Coal		121,563
1950	30,008		Coal		27,579,330
1949	56,076		Coal		52,410,800
1948	42,315		Coal		40,188,300
1947	50,310		Coal		46,878,240
1946	54,648		Coal		51,029,600
1945	36,000		Coal		33,156,140
1944	2,581		Coal		2,358,140

SUMMARY TOTALS: 092GSW043

NAME: **WHITE RAPIDS**

	<u>Metric</u>	<u>Imperial</u>
Mined:	272,232 tonnes	300,084 tons
Milled:		
Coal:	253,894,478 kilograms	559,741,352 pounds

Recovery:

Comments:

1955: Berkley Creek.
 1954: Berkley Creek.
 1953: Riverside closed in April.
 1950: White Rapids closed in July 1950.

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MINFILE NUMBER: 092GSW044	NAME: ROUND ISLAND COAL	STATUS: Prospect			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1928	140		Coal		140,208

SUMMARY TOTALS: 092GSW044

	NAME: ROUND ISLAND COAL	
	<u>Metric</u>	<u>Imperial</u>
	140 tonnes	154 tons
	Milled: tonnes	tons
Recovery:	Coal: 140,208 kilograms	309,106 pounds

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: **092GSW046** NAME: **GRANBY** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1953	404		Coal		403,697
1952	1,636		Coal		1,635,655
1951	1,702		Coal		1,701,879
1950	1,670		Coal		1,670,128
1949	36		Coal		36,287
1948	1,202		Coal		1,202,020
1947	1,033		Coal		1,033,272
1946	710		Coal		710,184
1945	1,500		Coal		1,500,000
1944	1,317		Coal		1,316,736
1943	1,959		Coal		1,958,848
1942	2,451		Coal		2,450,592
1941	1,362		Coal		1,362,456
1940	1,258		Coal		1,257,808
1939	1,737		Coal		1,737,360
1938	1,636		Coal		1,635,760
1937	689		Coal		688,848
1932	62,740		Coal		62,740,032
1931	115,819		Coal		115,818,920
1930	151,054		Coal		151,053,800
1929	173,499		Coal		173,499,270
1928	189,788		Coal		189,787,780
1927	193,703		Coal		193,703,440
1926	169,963		Coal		169,962,570
1925	199,216		Coal		199,216,260
1924	215,870		Coal		215,869,520
1923	232,191		Coal		232,190,540
1922	281,350		Coal		281,349,700
1921	273,265		Coal		273,265,390
1920	204,814		Coal		204,814,420
1919	74,051		Coal		74,051,160
1918	17,229		Coal		17,229,328

SUMMARY TOTALS: 092GSW046

NAME: **GRANBY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,576,854 tonnes	2,840,495 tons
Milled:		
Recovery:	Coal: 2,576,853,660 kilograms	5,680,988,270 pounds

Comments:

- 1953: No. 7 closed May 1953.
- 1952: No. 7.
- 1951: No. 7.
- 1950: No. 7.
- 1949: No. 7.
- 1948: No. 5.
- 1947: No. 5.
- 1946: No. 5.
- 1945: No. 5.
- 1944: No. 5.
- 1943: No. 5.
- 1942: No. 5.
- 1941: No. 5.
- 1940: No. 5.
- 1939: No. 3 and No. 4.
- 1938: Cassidy Mine.
- 1937: Cassidy Mine.
- 1932: Closed September 1932.
- 1931: Granby No. 1 and No. 2.
- 1930: Granby No. 1 and No. 2.
- 1929: Granby No. 1 and No. 2.
- 1928: Granby No. 1.
- 1927: Granby No. 1.
- 1926: Granby No. 1.
- 1925: Granby No. 1.

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MINFILE NUMBER: **092GSW046**

NAME: **GRANBY**

STATUS: Past Producer

Comments:

1924: Granby No. 1.
1923: Granby No. 1.
1922: Granby No. 1.
1921: Granby No. 1.
1920: Granby No. 1.
1919: Granby No. 1.
1918: Granby No. 1 began operations in 1917.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: **092GSW048** NAME: **WELLINGTON** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1968	84		Coal		84,368
1967	206		Coal		205,931
1966	185		Coal		185,066
1965	236		Coal		235,868
1964	204		Coal		204,117
1963	255		Coal		254,917
1962	602		Coal		602,371
1961	745		Coal		744,798
1960	1,272		Coal		1,271,873
1959	1,283		Coal		1,282,760
1958	1,117		Coal		1,116,745
1957	1,672		Coal		1,671,942
1956	1,662		Coal		1,661,963
1955	1,830		Coal		1,829,792
1954	2,194		Coal		2,193,573
1953	2,583		Coal		2,582,756
1952	3,105		Coal		3,105,294
1951	3,132		Coal		3,131,602
1950	2,950		Coal		2,950,166
1949	3,353		Coal		3,352,956
1948	2,804		Coal		2,804,109
1947	4,005		Coal		4,005,072
1946	4,385		Coal		4,385,056
1945	4,564		Coal		4,563,872
1944	75,614		Coal		75,614,784
1943	141,574		Coal		141,573,480
1942	137,284		Coal		137,283,940
1941	111,680		Coal		111,680,000
1940	149,987		Coal		149,987,000
1939	135,719		Coal		135,719,310
1938	119,805		Coal		119,804,680
1937	132,551		Coal		132,551,410
1936	2,937		Coal		2,937,256
1935	147		Coal		147,320
1934	1,700		Coal		1,699,800
1933	1,936		Coal		1,935,480
1932	1,401		Coal		1,401,064
1931	1,561		Coal		1,560,576
1930	1,126		Coal		1,125,728
1929	4,843		Coal		4,843,272
1928	13,046		Coal		13,046,460
1927	6,288		Coal		6,288,024
1926	16,868		Coal		16,867,632
1925	16,914		Coal		16,914,368
1924	16,139		Coal		16,139,160
1923	11,249		Coal		11,249,152
1922	9,294		Coal		9,294,368
1921	4,288		Coal		4,287,520
1913	48,914		Coal		48,914,304
1912	143,792		Coal		143,792,440
1911	164,442		Coal		164,441,630
1910	150,552		Coal		150,551,890
1909	154,757		Coal		154,757,120
1908	129,906		Coal		129,905,760
1907	173,876		Coal		173,876,200
1900	102,405		Coal		102,404,670

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER:	<u>092GSW048</u>	NAME:	<u>WELLINGTON</u>	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1897	303,114		Coal		302,702,200
			Fireclay		412,200
1896	346,438		Coal		346,147,890
			Fireclay		290,600
1895	342,871		Coal		342,296,490
			Fireclay		675,000
1894	383,136		Coal		382,988,150
			Fireclay		147,574
1893	343,384		Coal		342,731,490
			Fireclay		652,932
1892	295,640		Coal		295,016,880
			Fireclay		623,000
1891	350,705		Coal		350,704,910
1890	177,288		Coal		177,287,930
1889	277,758		Coal		277,757,830
1888	201,566		Coal		201,566,270
1887	243,044		Coal		243,044,470
1886	188,819		Coal		188,819,530
1885	223,520		Coal		223,520,000
1884	258,611		Coal		258,610,860
1883	174,106		Coal		174,106,070
1882	234,402		Coal		234,401,910
1880	192,899		Coal		192,899,430
1878	89,775		Coal		89,775,334
1877	49,523		Coal		49,523,400
1876	53,782		Coal		53,782,000
1875	51,351		Coal		51,350,926
1874	30,295		Coal		30,295,088
1873	150,834		Coal		150,834,340

SUMMARY TOTALS: 092GSW048

NAME: **WELLINGTON**

	Metric	Imperial
Mined:	7,189,884 tonnes	7,925,490 tons
Milled:		
Recovery:		
Coal:	7,187,186,163 kilograms	15,845,028,733 pounds
Fireclay:	2,801,306 kilograms	6,175,821 pounds

Comments:

- 1968: Loudon No. 6, closed in July 1968.
- 1967: Loudon No. 6.
- 1966: Loudon No. 6.
- 1965: Loudon No. 6.
- 1964: Loudon No. 6.
- 1963: Loudon No. 6 (64 tonnes), Carruthers & Wakelem No. 3 (191 tonnes).
- 1962: Loudon No. 6 (275), Carruthers & Wakelem (204), Stronach No. 2(123).
- 1961: Loudon No.6(320), Carruthers & Wakelem No.3(202), Stronach No.2(222)
- 1960: Loudon No.6(555), Carruthers & Wakelem No.3(421), Stronach No.2(296)
- 1959: Loudon No. 6 (572), Stronach (370), Carruthers (279) & White (62).
- 1958: Loudon No. 6 (286), Stronach (424), Carruthers (388), White (19).
- 1957: Loudon No. 6 (908), Stronach (279), Carruthers (430) & White (54).
- 1956: Loudon No. 6 (667 tonnes), Stronach (560) and Carruthers (435).
- 1955: Loudon No. 6 (503), Stronach (843) and Carruthers (484 tonnes).
- 1954: Loudon No. 5 & 6 (292), Stronach (1334), Carruthers (509), Wende(59).
- 1953: Loudon No. 5 & 6(292), Stronach (1287), Carruthers (506), Wende(60).
- 1952: Loudon No. 5 (956), Stronach (1439), Carruthers (526), Wende (184).
- 1951: Loudon No. 5 (953 tonnes), Stronach (1638) and Carruthers (541).
- 1950: Loudon No. 5 (897 tonnes), Stronach (1488) and Carruthers (565).
- 1949: Loudon No. 5 (1001 tonnes), Stronach (1714) and Carruthers (639).
- 1948: Loudon No. 5 (813 tonnes), Stronach (1428) and Carruthers (563).
- 1947: Loudon No. 5 (1329 tonnes), Stronach (1910) and Carruthers (766).
- 1946: Loudon No. 5(1410), Stronach(1778), Carruthers(814), Pacific(383).
- 1945: Loudon No. 5(1635), Stronach (1699), Carruthers (742), Pacific (488).
- 1944: Wellington(72504), LoudonNo.3(851), Stronach(1096), Carruthers(564).
- 1943: Wellington(139564), Loudon(523), Stronach(608), No.9(404), Paci.(475).
- 1942: Wellington(136101), Loudon(420), Biggs(72), Stronach(161), No.9 (91).
- 1941: Wellington (30841), Northfield (80000), Loudon (671), Biggs (168).
- 1940: Northfield (149053 tonnes), Loudon (303 tonnes), Biggs (631).
- 1939: Northfield (134986 tonnes), Loudon (30 tonnes), Biggs (703 tonnes)
- 1938: Northfield (119431 tonnes), Loudon (142 tonnes), and Biggs (232).

MINFILE NUMBER: **092GSW048**

NAME: **WELLINGTON**

STATUS: Past Producer

Comments:

1937: Northfield (132063 tonnes), Loudon (406 tonnes) and Biggs (82).
1936: Northfield (2606 tonnes), Loudon (51 tonnes), Biggs (280 tonnes).
1935: Biggs.
1934: Biggs (1522 tonnes) and Stronach (Adit) (178 tonnes).
1933: Biggs (1884 tonnes) and Old Adit (52 tonnes).
1932: Biggs. No. 9 closed February 16, 1932.
1931: Biggs.
1930: Biggs.
1929: No. 9 (4396 tonnes) and Biggs (447 tonnes).
1928: No. 9.
1927: No. 9 (5733 tonnes) and King & Foster (555 tonnes);closed 01/1927.
1926: King & Foster No. 2 and No. 5.
1925: King & Foster No. 2, No. 5, No. 6 and No. 7.
1924: King & Foster No. 2, No. 5 and No. 6.
1923: King & Foster No. 2, No. 4 and No. 5.
1922: King & Foster Old Adit and No. 1.
1921: King & Foster Old Adit and No. 1.
1913: Northfield.
1912: Northfield.
1911: Northfield.
1910: Northfield.
1909: Northfield.
1908: Northfield (119,985 tonnes) and Gilfillan (9921 tonnes).
1907: Northfield No. 4 (170,982 tonnes) and Gilfillan (2894 tonnes).
1900: No. 5 closed. Production not reported for 1898, 1899, 1904-1906.
1897: No. 1, No. 3, No. 4, No. 5, No. 6; West Wellington (329 tonnes).
1896: No. 1, No. 3, No. 4, No. 5 and No. 6; West Wellington(813 tonnes).
1895: No. 1, No. 3, No. 4, No. 5 and No. 6.
1894: No. 1, No. 3, No. 4, No. 5 and No. 6.
1893: No. 4, No. 5 and No. 6.
1892: No. 1, No. 4, No. 5 and No. 6.
1891: No. 1, No. 4, No. 5 and No. 6.
1890: No. 3, No. 4, No. 5 and No. 6.
1889: No. 3, No. 4, No. 5 and No. 6.
1888: Wellington, No. 3, No. 4 and No. 5.
1887: Wellington, No. 3, No. 4 and No. 5.
1886: Wellington, No. 3, No. 4 and No. 5.
1885: Wellington.
1884: Wellington.
1883: Wellington.
1882: Wellington; production for 1881 unavailable.
1880: Wellington; production for 1879 unavailable.
1878: Wellington.
1877: Wellington.
1876: Wellington, unofficial.
1875: Wellington.
1874: Departure Bay.
1873: Production from 1871 to 1873.

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MINFILE NUMBER:	092GSW050	NAME:	BRIGHT	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1953	68,952		Coal		47,678,900
1952	73,965		Coal		55,591,400
1951	36,325		Coal		24,184,600
1950	1,794		Coal		1,192,040

SUMMARY TOTALS: 092GSW050

NAME: **BRIGHT**

		<u>Metric</u>		<u>Imperial</u>	
	Mined:	181,036 tonnes		199,558 tons	
Recovery:	Milled:				
	Coal:	128,646,940 kilograms		283,617,874 pounds	
Comments:	1953:	Closed November 27, 1953.			

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: <u>092JNE001</u>		NAME: <u>BRALORNE</u>		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1980		6	Silver	124		
			Gold	404		
			Lead			7
			Zinc			7
1978		149	Silver	4,976		
			Gold	14,992		
			Lead			150
			Zinc			150
1971	32,914	32,914	Silver	109,047		
			Gold	622,713		
1970	69,193	69,687	Silver	211,905		
			Gold	1,222,348		
1969	85,634	85,634	Silver	257,377		
			Gold	1,458,606		
1968	91,317	91,317	Silver	290,875		
			Gold	1,627,433		
1967	94,080	88,298	Silver	269,103		
			Gold	1,515,058		
1966	105,888	95,991	Silver	257,191		
			Gold	1,344,334		
1965	104,989	104,989	Silver	331,745		
			Gold	1,697,882		
1964	138,903	138,871	Silver	436,126		
			Gold	2,296,894		
1963	138,437	138,437	Silver	523,650		
			Gold	2,706,459		
1962	136,075	136,075	Silver	623,397		
			Gold	3,082,960		
1961	139,742	139,742	Silver	702,244		
			Gold	3,281,678		
1960	139,236	139,236	Silver	743,611		
			Gold	3,549,350		
1959	127,887	127,887	Silver	671,141		
			Gold	3,211,914		
1958	132,773	132,773	Silver	656,864		
			Gold	3,094,406		
1957	128,087	128,087	Silver	589,526		
			Gold	2,770,997		
1956	119,441	119,441	Silver	438,366		
			Gold	1,979,706		
1955	151,346	151,346	Silver	440,947		
			Gold	2,038,024		
1954	164,648	164,648	Silver	452,953		
			Gold	2,028,569		
1953	166,166	166,166	Silver	507,414		
			Gold	2,182,435		
1952	158,761	158,761	Silver	559,605		
			Gold	2,314,530		
1951	152,582	152,582	Silver	668,715		
			Gold	2,475,581		
1950	167,895	167,896	Silver	638,700		
			Gold	2,402,334		
1949	163,228	162,381	Silver	674,375		
			Gold	2,563,012		
1948	136,295	134,370	Silver	682,586		
			Gold	2,347,001		
1947	124,137	120,698	Silver	514,164		
			Gold	1,894,546		
1946	63,073	58,544	Silver	270,596		
			Gold	977,630		
1945	95,510	95,510	Silver	493,449		
			Gold	1,784,192		
1944	99,564	99,564	Silver	528,502		
			Gold	2,188,096		
1943	107,466	107,466	Silver	608,344		
			Gold	2,295,930		

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: **092JNE001** NAME: **BRALORNE** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1942	155,214	155,214	Silver	680,782	
			Gold	2,824,681	
1941	174,151	174,152	Silver	997,069	
			Gold	3,143,362	
1940	173,645	173,645	Silver	983,259	
			Gold	3,150,174	
1939	167,758	167,758	Silver	1,114,638	
			Gold	3,261,523	
1938	163,770	163,770	Silver	1,096,287	
			Gold	3,230,544	
1937	154,843	154,843	Silver	827,900	
			Gold	2,584,037	
1936	151,739	151,739	Silver	653,070	
			Gold	1,985,273	
1935	131,644	131,644	Silver	485,238	
			Gold	1,462,556	
1934	89,506	89,506	Silver	506,388	
			Gold	1,429,836	
1933	49,244	49,244	Silver	290,782	
			Gold	801,804	
1932	29,626	29,626	Silver	173,866	
			Gold	679,134	
1920	181	181	Gold	3,732	
1919	363	363	Silver	778	
			Gold	3,826	
1918	345	345	Silver	1,555	
			Gold	6,843	
1917	1,361	1,361	Gold	34,991	
1916	544	544	Gold	23,327	
1911	76	76	Gold	2,208	
1909	172	172	Gold	5,536	
1907	280	280	Gold	5,599	
1906	195	195	Gold	5,287	
1905	121	121	Gold	3,888	
1903	138	138	Silver	373	
			Gold	5,878	
1902	82	82	Gold	1,556	
1901	2	2	Gold	1,057	
1900	1,152	245	Gold	16,578	

SUMMARY TOTALS: 092JNE001

NAME: **BRALORNE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	4,981,419 tonnes	5,491,074 tons
Milled:	4,954,712 tonnes	5,461,635 tons
Recovery:		
Silver:	21,969,603 grams	706,338 ounces
Gold:	87,643,244 grams	2,817,792 ounces
Lead:	157 kilograms	346 pounds
Zinc:	157 kilograms	346 pounds

Comments:

1980: Clean-up.
 1978: Clean-up.

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: 092JNE002		NAME: IDA MAY (L.457)		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1919	91		Gold	1,648	
1918	54		Silver	311	
			Gold	933	

SUMMARY TOTALS: 092JNE002

NAME: **IDA MAY (L.457)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	145 tonnes	160 tons
Milled:		tons
Recovery:		
	311 grams	10 ounces
	2,581 grams	83 ounces

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER:	<u>092JNE004</u>	NAME:	<u>PIONEER (L.456)</u>	STATUS:	Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1983	907	18	Silver	379	
			Gold	1,462	
1981		3	Silver	2,332	
			Gold	12,434	
			Lead		59
			Zinc		139
1962		1	Gold	24,074	
1961		55,317	Gold	71,602	
1960	45,888	45,507	Silver	167,863	
			Gold	838,879	
1959	72,963	72,259	Silver	216,321	
			Gold	1,045,994	
1958	95,655	95,655	Silver	335,881	
			Gold	1,550,578	
1957	92,609	92,609	Silver	371,805	
			Gold	1,747,926	
1956	80,319	80,319	Silver	329,350	
			Gold	1,635,271	
1955	80,796	80,796	Silver	338,401	
			Gold	1,677,074	
1954	77,565	77,565	Silver	300,486	
			Gold	1,445,854	
1953	81,027	81,027	Silver	228,234	
			Gold	1,185,771	
1952	78,050	78,050	Silver	310,906	
			Gold	1,462,650	
1951	70,506	70,506	Silver	255,542	
			Gold	1,188,197	
1950	67,356	66,724	Silver	235,263	
			Gold	1,099,491	
1949	65,676	60,768	Silver	206,742	
			Gold	1,004,938	
1948	50,640	47,365	Silver	156,977	
			Gold	735,368	
1947	40,547	37,470	Silver	110,851	
			Gold	601,283	
1946	12,434	11,045	Silver	31,352	
			Gold	183,383	
1945	9,463	8,200	Silver	29,268	
			Gold	153,773	
1944	17,818	15,300	Silver	47,588	
			Gold	283,411	
1943	27,438	23,981	Silver	62,890	
			Gold	350,251	
1942	81,389	72,233	Silver	202,605	
			Gold	1,261,631	
1941	83,874	99,165	Silver	296,847	
			Gold	1,668,520	
1940	80,686	70,384	Silver	227,705	
			Gold	1,335,034	
1939	94,109	79,840	Silver	237,036	
			Gold	1,355,158	
1938	129,523	111,859	Silver	324,062	
			Gold	1,812,403	
1937	134,150	118,717	Silver	363,874	
			Gold	1,907,734	
1936	140,505	140,474	Silver	399,518	
			Gold	2,158,766	
1935	123,178	123,056	Silver	507,508	
			Gold	2,727,733	
1934	117,993	118,113	Silver	489,064	
			Gold	2,722,632	
1933	90,692	90,862	Silver	484,398	
			Gold	2,566,588	
1932	45,359	45,359	Silver	195,638	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092JNE004		NAME: PIONEER (L.456)		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1932	45,359	45,359	Gold	1,203,842		
1931	29,365	29,365	Gold	875,643		
1930	26,127	26,127	Gold	430,497		
1929	19,051	19,051	Silver	20,839		
			Gold	288,854		
1928	13,027	13,027	Silver	43,544		
			Gold	240,426		
1927	9,036	9,036	Silver	24,385		
			Gold	140,212		
1926	9,525	9,525	Silver	26,438		
			Gold	142,452		
1925	6,439	6,439	Gold	109,825		
1922	1,441	1,441	Gold	11,601		
1921	454	454	Gold	11,633		
1919	3,647	3,647	Silver	10,575		
			Gold	72,470		
1918	2,947	2,947	Silver	10,948		
			Gold	69,142		
1917	2,903	2,903	Silver	8,584		
			Gold	61,180		
1916	1,361	1,361	Gold	50,542		
1910	7	7	Gold	778		
1908	14	14	Gold	871		

SUMMARY TOTALS: 092JNE004

NAME: **PIONEER (L.456)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,314,459 tonnes	2,551,254 tons
Milled:	2,295,891 tonnes	2,530,787 tons
Recovery:		
Silver:	7,611,999 grams	244,731 ounces
Gold:	41,525,831 grams	1,335,085 ounces
Lead:	59 kilograms	130 pounds
Zinc:	139 kilograms	306 pounds

Comments:

1981: Clean-up.
 1962: Tailings or slag (tonnage not reported).
 1961: Mill residues.

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: **092JNE007** NAME: **CORONATION (L.539)** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1927	4,166	4,166	Silver	9,766	
			Gold	45,752	
1916	272	272	Gold	7,776	
1915	27	27	Silver	156	
			Gold	467	
1914	109	109	Silver	12,130	
			Gold	7,185	
1913	762	762	Silver	9,175	
			Gold	42,549	
1910	122	122	Gold	3,204	
1909	218	218	Gold	4,510	
1902	36	36	Gold	1,182	
1901	1,089	1,089	Gold	13,996	
1900	2,942	2,942	Gold	52,284	
1899	1,412	1,412	Gold	40,434	

SUMMARY TOTALS: 092JNE007

NAME: **CORONATION (L.539)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	11,155 tonnes	12,296 tons
Milled:	11,155 tonnes	12,296 tons
Recovery:		
Silver:	31,227 grams	1,004 ounces
Gold:	219,339 grams	7,052 ounces

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MINFILE NUMBER:	<u>092JNE022</u>	NAME:	<u>GLORIA KITTY (L.3171)</u>	STATUS:	Developed Prospect
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1938	4,343	4,343	Silver Gold	311 467	

SUMMARY TOTALS: 092JNE022

		NAME:	<u>GLORIA KITTY (L.3171)</u>
		<u>Metric</u>	<u>Imperial</u>
	Mined:	4,343 tonnes	4,787 tons
	Milled:	4,343 tonnes	4,787 tons
Recovery:	Silver:	311 grams	10 ounces
	Gold:	467 grams	15 ounces

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MINFILE NUMBER: 092JNE029	NAME: CONGRESS	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1937	943	943	Silver	1,306	
			Gold	2,582	
			Copper		38

SUMMARY TOTALS: 092JNE029

NAME: **CONGRESS**

		<u>Metric</u>	<u>Imperial</u>
Mined:	943 tonnes	1,039 tons	
Milled:	943 tonnes	1,039 tons	
Recovery:			
Silver:	1,306 grams	42 ounces	
Gold:	2,582 grams	83 ounces	
Copper:	38 kilograms	84 pounds	

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MINFILE NUMBER: 092JNE030		NAME: WAYSIDE		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1937	15	15	Silver	187		
			Gold	778		
1936	34,473	34,051	Silver	20,310		
			Gold	136,542		
1935	2,443	2,443	Silver	5,039		
			Gold	25,691		
1934	2,160	465	Silver	404		
			Gold	2,613		
1915	18	18	Silver	124		
			Gold	498		

SUMMARY TOTALS: 092JNE030

NAME: **WAYSIDE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	39,109 tonnes	43,110 tons
Milled:	36,992 tonnes	40,777 tons
Recovery:		
Silver:	26,064 grams	838 ounces
Gold:	166,122 grams	5,341 ounces

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092JNE045		NAME: LUCKY STRIKE (L.6828)		STATUS: Prospect	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1981	4		Silver	2,116	
			Gold	217	
			Lead		336
			Zinc		31

SUMMARY TOTALS: 092JNE045

NAME: **LUCKY STRIKE (L.6828)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	4 tonnes	4 tons
Milled:	tonnes	tons
Recovery:		
Silver:	2,116 grams	68 ounces
Gold:	217 grams	7 ounces
Lead:	336 kilograms	741 pounds
Zinc:	31 kilograms	68 pounds

Comments: 1981: Prod. from the "White and Bell" property, west(?) of Lucky Strike.

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: **092JNE062** NAME: **EAGLE MERCURY** STATUS: Past Producer
Production **Tonnes** **Tonnes** **Commodity** **Grams** **Kilograms**
Year **Mined** **Milled** **Recovered** **Recovered**
1968 113 Mercury 172

SUMMARY TOTALS: 092JNE062

NAME: **EAGLE MERCURY**

	<u>Metric</u>	<u>Imperial</u>
Mined:	113 tonnes	125 tons
Milled:	tonnes	tons
Recovery:		
Mercury:	172 kilograms	379 pounds
Comments:		
1968:	EMPR AR 1968, p.A53	

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MINFILE NUMBER: 092JNE063	NAME: BIRKENHEAD	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1973	100		Jade/Nephrite		100

SUMMARY TOTALS: 092JNE063

	NAME: BIRKENHEAD		
	<u>Metric</u>	<u>Imperial</u>	
	100 tonnes	110 tons	
	Milled: tonnes	tons	
Recovery:	Jade/Nephrite:	100 kilograms	220 pounds

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092JNE066		NAME: GRAY ROCK		STATUS: Past Producer	
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1951	7		Antimony		3,765
SUMMARY TOTALS: 092JNE066		NAME: GRAY ROCK			
		<u>Metric</u>		<u>Imperial</u>	
	Mined:	7 tonnes		8 tons	
	Milled:	tonnes		tons	
Recovery:	Antimony:	3,765 kilograms		8,300 pounds	
Comments:	1951:	National Mineral Inventory 092J15 Sb1			

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: 092JNE075		NAME: MINTO MINE (L.5601)		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1940	3,191	3,030	Silver	28,179		
			Gold	18,070		
			Copper			313
			Lead			1,836
1937	29,534	29,534	Silver	421,197		
			Gold	135,360		
			Copper			3,191
			Lead			17,510
1936	26,664	26,554	Silver	666,257		
			Gold	250,535		
			Copper			3,918
			Lead			23,682
1935	18,650	18,650	Silver	411,026		
			Gold	131,410		
			Copper			2,155
			Lead			13,180
1934	2,611	1,305	Silver	46,655		
			Gold	10,731		
			Copper			96
			Lead			227

SUMMARY TOTALS: 092JNE075

NAME: **MINTO MINE (L.5601)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	80,650 tonnes	88,901 tons
Milled:	79,073 tonnes	87,163 tons
Recovery:		
Silver:	1,573,314 grams	50,583 ounces
Gold:	546,106 grams	17,558 ounces
Copper:	9,673 kilograms	21,325 pounds
Lead:	56,435 kilograms	124,418 pounds

Comments:

1940: Lessees
 1937: Bullion-conc. Tacoma
 1936: Bullion-conc. Tacoma
 1935: Bullion-conc. Tacoma
 1934: Bullion-conc. Tacoma

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: **092JNE079** NAME: **BRETT** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1962	841		Gold	218	
1910	272	272	Gold	218	
1908		1,089	Gold	1	
1904	36	36	Gold	124	
1903	3,175	3,175	Gold	2,333	
1902	2,495	2,495	Gold	2,208	
1901	1,814	1,379	Gold	11,290	
1900	544	544	Gold	5,008	

SUMMARY TOTALS: 092JNE079

NAME: **BRETT**

	<u>Metric</u>	<u>Imperial</u>
Mined:	9,177 tonnes	10,116 tons
Milled:	8,990 tonnes	9,910 tons
Recovery: Gold:	21,400 grams	688 ounces

Comments:

1908: See Minister of Mines Annual Report 1908, page 140

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MINFILE NUMBER: 092JNE083	NAME: MOHA	STATUS: Prospect			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1935	12		Silver Gold	31 93	

SUMMARY TOTALS: 092JNE083

	NAME: MOHA	
	<u>Metric</u>	<u>Imperial</u>
	Mined: 12 tonnes	13 tons
	Milled: tonnes	tons
Recovery:	Silver: 31 grams	1 ounces
	Gold: 93 grams	3 ounces

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
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MINFILE NUMBER: 092JNE094		NAME: GOLDEN CACHE		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1901	862	862	Gold	8,273		
1898	816	816	Gold	7,029		
1897	1,111	1,111	Gold	7,309		

SUMMARY TOTALS: 092JNE094

NAME: **GOLDEN CACHE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,789 tonnes	3,074 tons
Milled:	2,789 tonnes	3,074 tons
Gold:	22,611 grams	727 ounces

Recovery:

Comments:

1901: Operated by Toronto Lillooet Gold.
 1897: Operated by A. Grant.

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MINFILE NUMBER: 092JNE108		NAME: JEWEL		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1940	25		Silver	311		
			Gold	1,773		
			Copper			150
1938	26		Silver	93		
			Gold	1,959		
			Copper			49

SUMMARY TOTALS: 092JNE108

NAME: **JEWEL**

	<u>Metric</u>	<u>Imperial</u>
Mined:	51 tonnes	56 tons
Milled:		tons
Recovery: Silver:	404 grams	13 ounces
Gold:	3,732 grams	120 ounces
Copper:	199 kilograms	439 pounds

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MINFILE NUMBER:	092JNE122	NAME:	MEAD LAKE	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1932	23		Limestone		22,680
SUMMARY TOTALS: 092JNE122		NAME:	MEAD LAKE		
	Mined:	<u>Metric</u>		<u>Imperial</u>	
	Milled:	23 tonnes		25 tons	
Recovery:	Limestone:	22,680 kilograms		50,001 pounds	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092JNE144		NAME: CAYOOSH CREEK		STATUS: Past Producer	
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1990	300		Granite		300,000
SUMMARY TOTALS: 092JNE144		NAME: CAYOOSH CREEK			
		<u>Metric</u>		<u>Imperial</u>	
	Mined:	300 tonnes		331 tons	
	Milled:	tonnes		tons	
Recovery:	Granite:	300,000 kilograms		661,387 pounds	
Comments:	1990:	300 to 400 tonnes produced.			

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092JSE015	NAME: IRON KING	STATUS: Past Producer
Production Year	Tonnes Mined	Tonnes Milled
1944	5,580	
		Commodity
		Iron
		Grams Recovered
		2,500,000
		Kilograms Recovered

SUMMARY TOTALS: 092JSE015

	NAME: IRON KING	
	<u>Metric</u>	<u>Imperial</u>
Mined:	5,580 tonnes	6,151 tons
Milled:	tonnes	tons
Recovery:	Iron: 2,500,000 kilograms	5,511,555 pounds
Comments:	1944: Grade varied between 40 and 50 per cent iron (Cummings, 1944).	

MINFILE PRODUCTION REPORT
 GEOLOGICAL SURVEY BRANCH
 ENERGY AND MINERALS DIVISION

MINFILE NUMBER: 092JW 001		NAME: BRANDYWINE		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1978	2,000	2,000	Silver	548,000		
			Gold	342,000		
			Copper		10,000	
			Lead		150,000	
			Zinc		150,000	
1977	8,067	8,067	Silver	157,468		
			Gold	1,381		
			Copper		1,290	
			Lead		6,764	
			Zinc		9,857	
1970	318	318	Silver	11,601		
			Gold	156		
			Copper		1,653	
			Lead		8,065	

SUMMARY TOTALS: 092JW 001

NAME: **BRANDYWINE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	10,385 tonnes	11,448 tons
Milled:	10,385 tonnes	11,448 tons
Recovery:		
Silver:	717,069 grams	23,054 ounces
Gold:	343,537 grams	11,045 ounces
Copper:	12,943 kilograms	28,534 pounds
Lead:	164,829 kilograms	363,386 pounds
Zinc:	159,857 kilograms	352,424 pounds

Comments:

1978: Production data from Silver Tusk Mines Ltd., pers. comm. 1991

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MINFILE NUMBER: 092JW 003	NAME: SILVER TUNNEL	STATUS: Developed Prospect			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1978	10,000		Silver Gold	514,000 3,430	

SUMMARY TOTALS: 092JW 003

	NAME: SILVER TUNNEL	
	<u>Metric</u>	<u>Imperial</u>
Mined:	10,000 tonnes	11,023 tons
Milled:	tonnes	tons
Recovery:	Silver: 514,000 grams	16,525 ounces
	Gold: 3,430 grams	110 ounces
Comments:	1978: Lead and zinc was also mined at a combined grade of 5-6 per cent.	

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MINFILE NUMBER: 092JW 012		NAME: NORTHAIR		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1982	27,187	27,187	Silver	1,062,806		
			Gold	242,931		
			Copper			42,569
			Lead			424,627
			Zinc			708,143
1981	62,452	62,452	Silver	1,498,670		
			Gold	480,555		
			Copper			67,302
			Lead			620,196
			Zinc			1,118,991
1980	71,124	71,124	Silver	1,894,138		
			Gold	564,131		
			Copper			97,203
			Lead			871,219
			Zinc			1,246,617
1979	87,655	88,309	Silver	1,926,052		
			Gold	954,534		
			Copper			94,186
			Lead			724,866
			Zinc			1,106,137
1978	89,486	93,397	Silver	5,708,023		
			Gold	1,069,386		
			Copper			100,930
			Lead			1,140,032
			Zinc			1,464,364
1977	84,366	84,366	Silver	10,341,094		
			Gold	1,234,043		
			Cadmium			1,354
			Lead			1,217,824
			Zinc			1,265,112
1976	54,565	47,553	Silver	3,864,112		
			Gold	620,131		
			Cadmium			1,782
			Lead			340,681
			Zinc			411,021
1975	526	526	Silver	12,379		
			Gold	12,690		
			Copper			1,485
			Lead			1,185
			Zinc			5,504
1974	128	128	Silver	1,337		
			Gold	2,830		
			Zinc			1,654

SUMMARY TOTALS: 092JW 012

NAME: **NORTHAIR**

	<u>Metric</u>	<u>Imperial</u>
Mined:	477,489 tonnes	526,342 tons
Milled:	475,042 tonnes	523,644 tons
Recovery:		
Silver:	26,308,611 grams	845,840 ounces
Gold:	5,181,231 grams	166,580 ounces
Cadmium:	3,136 kilograms	6,914 pounds
Copper:	403,675 kilograms	889,951 pounds
Lead:	5,340,630 kilograms	11,774,070 pounds
Zinc:	7,327,543 kilograms	16,154,463 pounds

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MINFILE NUMBER:	092JW 029	NAME:	JERVIS INLET SLATE	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1958	417		Slate		417,000
1957	181		Slate		181,000

SUMMARY TOTALS: 092JW 029

		NAME:	JERVIS INLET SLATE
		<u>Metric</u>	<u>Imperial</u>
	Mined:	598 tonnes	659 tons
	Milled:	tonnes	tons
Recovery:	Slate:	598,000 kilograms	1,318,364 pounds

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092K 002		NAME: WEST REDONDA ISLAND			STATUS: Past Producer
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1924	3,703		Limestone		3,703,128
1923	3,303		Limestone		3,302,877
1922	6,827		Limestone		6,826,565
1921	2,627		Limestone		2,627,207
1920	7,666		Limestone		7,665,711

SUMMARY TOTALS: 092K 002

NAME: **WEST REDONDA ISLAND**

	<u>Metric</u>	<u>Imperial</u>
Mined:	24,126 tonnes	26,594 tons
Milled:		
Recovery: Limestone:	24,125,488 kilograms	53,187,582 pounds

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MINFILE NUMBER: 092K 010		NAME: GEILER (L.1369)		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1941	4		Silver	62	
			Gold	93	
			Copper		14
1940	104		Silver	435	
			Gold	1,804	
			Copper		215

SUMMARY TOTALS: 092K 010

NAME: **GEILER (L.1369)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	108 tonnes	119 tons
Milled:		tons
Recovery:		
Silver:	497 grams	16 ounces
Gold:	1,897 grams	61 ounces
Copper:	229 kilograms	505 pounds

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092K 012		NAME: COPPER CLIFF		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1963	324		Copper		5,279
1907	437		Silver	4,510	7,482
1906	221		Copper		
			Silver	3,017	6,547
			Copper		

SUMMARY TOTALS: 092K 012

NAME: **COPPER CLIFF**

	<u>Metric</u>	<u>Imperial</u>
Mined:	982 tonnes	1,082 tons
Milled:	tonnes	tons
Recovery: Silver:	7,527 grams	242 ounces
Copper:	19,308 kilograms	42,567 pounds

Comments: 1963: Recovery based on 1.63 per cent copper (Assessment Report 19282).

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: **092K 013** NAME: **SANTANA** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1916	158		Silver	14,370	
			Gold	93	
			Copper		4,779

SUMMARY TOTALS: 092K 013

	<u>Metric</u>	<u>Imperial</u>
Mined:	158 tonnes	174 tons
Milled:	tonnes	tons
Recovery:	Silver: 14,370 grams	462 ounces
	Gold: 93 grams	3 ounces
	Copper: 4,779 kilograms	10,536 pounds

Comments: 1916: Operated by Santa Ana Mining Co. Ltd.

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MINFILE NUMBER: 092K 015		NAME: LUCKY JIM (L.723)		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1927	9		Silver	187	
			Gold	93	
			Copper		297
1916	164		Silver	3,359	
			Gold	1,835	
			Copper		5,697
1909	305		Silver	3,577	
			Gold	5,443	
			Copper		5,280

SUMMARY TOTALS: 092K 015

NAME: **LUCKY JIM (L.723)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	478 tonnes	527 tons
Milled:	tonnes	tons
Recovery:		
Silver:	7,123 grams	229 ounces
Gold:	7,371 grams	237 ounces
Copper:	11,274 kilograms	24,855 pounds

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MINFILE NUMBER: 092K 016	NAME: CHALCO	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1956	5		Silver Copper	249	1,011

SUMMARY TOTALS: 092K 016

	NAME: CHALCO	
	<u>Metric</u>	<u>Imperial</u>
	5 tonnes	6 tons
	Milled: tonnes	tons
Recovery:	Silver: 249 grams	8 ounces
	Copper: 1,011 kilograms	2,229 pounds

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MINFILE NUMBER: 092K 018		NAME: HOPE		STATUS: Past Producer		
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>	
1941	2		Silver	124		
			Gold	124		
			Copper		8	
1940	54		Silver	435		
			Gold	311		
			Copper		24	
1938	118		Silver	933		
			Gold	591		
1936	181		Silver	529		
			Gold	404		
1935	24		Silver	1,680		
			Gold	1,151		
			Copper		103	
1932	2		Silver	249		
			Gold	249		
1929	2		Silver	187		
			Gold	124		

SUMMARY TOTALS: 092K 018

NAME: **HOPE**

	<u>Metric</u>	<u>Imperial</u>
Mined:	383 tonnes	422 tons
Milled:	tonnes	tons
Recovery:	Silver: 4,137 grams	133 ounces
	Gold: 2,954 grams	95 ounces
	Copper: 135 kilograms	298 pounds

Comments:

1941: Ore mined estimated.
 1940: Ore mined estimated.
 1938: Ore mined estimated.
 1936: Ore mined estimated.
 1935: Ore mined estimated.

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MINFILE NUMBER: 092K 023		NAME: DORATHA MORTON (L.253)		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1934	16		Silver	3,204	
			Gold	964	
			Copper		4
1925	62		Silver	2,893	
			Gold	373	
			Copper		1,090
1899	8,806		Silver	317,935	
			Gold	137,911	
1898	435		Silver	9,891	
			Gold	4,665	

SUMMARY TOTALS: 092K 023

NAME: **DORATHA MORTON (L.253)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	9,319 tonnes	10,272 tons
Milled:	tonnes	tons
Recovery:		
Silver:	333,923 grams	10,736 ounces
Gold:	143,913 grams	4,627 ounces
Copper:	1,094 kilograms	2,412 pounds

Comments: 1934: Operated by Hercules Consolidated Mining, Smelting & Power Co. Ltd
 1925: Ore mined includes testing ore from Monte Christo (092K 022).

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MINFILE NUMBER:	092K 024	NAME:	ENID - JULIE	STATUS:	Past Producer
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1933	2		Silver Gold	218 62	

SUMMARY TOTALS: 092K 024

NAME: **ENID - JULIE**

		<u>Metric</u>		<u>Imperial</u>	
	Mined:	2 tonnes		2 tons	
	Milled:			tons	
Recovery:	Silver:	218 grams		7 ounces	
	Gold:	62 grams		2 ounces	
Comments:	1933:	Operated by Enid-Julie Mines Ltd.			

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MINFILE NUMBER: **092K 028** NAME: **ALEXANDRIA** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1940	1,648		Silver	38,879	
			Gold	21,181	
			Copper		1,710
1939	46		Silver	1,711	
			Gold	1,058	
			Copper		51

SUMMARY TOTALS: 092K 028

NAME: **ALEXANDRIA**

	<u>Metric</u>	<u>Imperial</u>
Mined:	1,694 tonnes	1,867 tons
Milled:		
Recovery:	Silver: 40,590 grams	1,305 ounces
	Gold: 22,239 grams	715 ounces
	Copper: 1,761 kilograms	3,882 pounds

Comments: 1939: Operated by lessee, F.H. Fox.

MINFILE PRODUCTION REPORT
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MINFILE NUMBER: 092K 035		NAME: DOUGLAS PINE (L.271)		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1940	287		Silver	8,087	
			Gold	4,261	
			Copper		1,219
1939	22		Silver	2,146	
			Gold	2,146	
			Copper		336
1938	1		Silver	156	
			Gold	249	
			Copper		14

SUMMARY TOTALS: 092K 035

NAME: **DOUGLAS PINE (L.271)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	310 tonnes	342 tons
Milled:	tonnes	tons
Recovery:		
Silver:	10,389 grams	334 ounces
Gold:	6,656 grams	214 ounces
Copper:	1,569 kilograms	3,459 pounds

Comments:

1940: Ore mined estimated.
 1939: Ore mined in tonnes is conc.

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MINFILE NUMBER: 092K 037	NAME: SONORA-NODALE	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1940	11		Silver	1,182	
			Gold	746	
			Copper		28
1939	2		Silver	249	
			Gold	156	

SUMMARY TOTALS: 092K 037

NAME: **SONORA-NODALE**

	<u>Mined:</u>	13 tonnes	<u>Imperial</u>	14 tons
	<u>Milled:</u>	tonnes		tons
Recovery:	Silver:	1,431 grams		46 ounces
	Gold:	902 grams		29 ounces
	Copper:	28 kilograms		62 pounds

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MINFILE NUMBER: 092K 038	NAME: HAYDEN BAY GOLD (L.803)	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1934	53		Silver	778	
			Gold	156	
			Copper		94

SUMMARY TOTALS: 092K 038

NAME: **HAYDEN BAY GOLD (L.803)**

	<u>Metric</u>		<u>Imperial</u>
Mined:	53 tonnes		58 tons
Milled:	tonnes		tons
Recovery:			
Silver:	778 grams		25 ounces
Gold:	156 grams		5 ounces
Copper:	94 kilograms		207 pounds

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MINFILE NUMBER: 092K 043	NAME: IRON MIKE	STATUS: Past Producer			
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered
1969			Iron		29,937,105
1966	168,736	135,773	Iron		82,863,185

SUMMARY TOTALS: 092K 043

NAME: **IRON MIKE**

		<u>Metric</u>	<u>Imperial</u>
Mined:	168,736	tonnes	186,000 tons
Milled:	135,773	tonnes	149,664 tons
Recovery:	Iron:	112,800,290 kilograms	248,682,001 pounds

Comments:

1969: Stockpiled iron concentrates shipped, Annual Report 1969.
1966: Annual Report 1966.

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MINFILE NUMBER: **092K 047** NAME: **HUMMING BIRD (L.4815A)** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1929	7		Silver	124	
			Copper		398
1928	4		Silver	62	
			Copper		190

SUMMARY TOTALS: 092K 047

NAME: **HUMMING BIRD (L.4815A)**

	<u>Metric</u>	<u>Imperial</u>
Mined:	11 tonnes	12 tons
Milled:	tonnes	tons
Recovery: Silver:	186 grams	6 ounces
Copper:	588 kilograms	1,296 pounds

Comments: 1929: Pre 1928, 140 tonnes of ore mined & shipped-Annual Report 1928.

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MINFILE NUMBER: 092K 048		NAME: LOUGHBOROUGH GOLD		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1939	23		Silver	1,773	
			Gold	435	
			Copper		20
1936	55		Silver	5,785	
			Gold	1,431	
			Copper		64
1935	44		Silver	6,656	
			Gold	1,680	

SUMMARY TOTALS: 092K 048

NAME: **LOUGHBOROUGH GOLD**

	<u>Metric</u>	<u>Imperial</u>
Mined:	122 tonnes	134 tons
Milled:	tonnes	tons
Recovery:		
Silver:	14,214 grams	457 ounces
Gold:	3,546 grams	114 ounces
Copper:	84 kilograms	185 pounds
Comments:		
1935:	Operated by Loughbough Mines Ltd.	

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MINFILE NUMBER: 092K 060		NAME: QUADRA COPPER		STATUS: Past Producer	
<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1968	1,846		Silver	36,391	
			Gold	156	
			Copper		68,542
1967	511		Silver	9,455	
			Gold	156	
			Copper		16,533
1966	1,586		Silver	20,683	
			Gold	342	
			Copper		53,717
1965	502		Silver	8,118	
			Gold	62	
			Copper		18,312
1962	40		Silver	1,151	
			Copper		2,128
1961	79		Silver	2,706	
			Copper		6,093
1956	11		Silver	995	
			Copper		2,182
1953	161		Silver	7,682	
			Copper		15,222

SUMMARY TOTALS: 092K 060

NAME: **QUADRA COPPER**

	<u>Metric</u>	<u>Imperial</u>
Mined:	4,736 tonnes	5,221 tons
Milled:	tonnes	tons
Recovery:		
Silver:	87,181 grams	2,803 ounces
Gold:	716 grams	23 ounces
Copper:	182,729 kilograms	402,848 pounds

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MINFILE NUMBER: **092K 071** NAME: **POMEROY 3,4** STATUS: Past Producer

<u>Production Year</u>	<u>Tonnes Mined</u>	<u>Tonnes Milled</u>	<u>Commodity</u>	<u>Grams Recovered</u>	<u>Kilograms Recovered</u>
1919	242		Silver	3,639	
			Copper		7,364
1918	500		Copper		20,662
1917	1,819		Silver	21,585	
			Copper		44,302
1915	247		Copper		5,244

SUMMARY TOTALS: 092K 071

NAME: **POMEROY 3,4**

	<u>Metric</u>	<u>Imperial</u>
Mined:	2,808 tonnes	3,095 tons
Milled:	tonnes	tons
Recovery: Silver:	25,224 grams	811 ounces
Copper:	77,572 kilograms	171,017 pounds

Comments: 1915: Operated by Valdes Island Copper Company, Ltd.

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MINFILE NUMBER: 092K 072	NAME: POMEROY 1	STATUS: Past Producer
Production Year	Tonnes Mined	Tonnes Milled
1968	5,443	
		Commodity
		Copper
		Grams Recovered
		559
		Kilograms Recovered

SUMMARY TOTALS: 092K 072

	NAME: POMEROY 1	
	<u>Metric</u>	<u>Imperial</u>
Mined:	5,443 tonnes	6,000 tons
Milled:	tonnes	tons
Recovery:		
	Copper: 559 kilograms	1,232 pounds
Comments:		
	1968: Leaching operation by Quadra Mining Co. Ltd.	

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MINFILE NUMBER:	092K 073	NAME:	BEAVER 1	STATUS:	Developed Prospect	
Production Year	Tonnes Mined	Tonnes Milled	Commodity	Grams Recovered	Kilograms Recovered	
1964	337		Silver Copper	2,550	5,038	

SUMMARY TOTALS: 092K 073

NAME: **BEAVER 1**

Metric

Imperial

Mined:

337 tonnes

371 tons

Milled:

tonnes

tons

Recovery:

Silver:

2,550 grams

82 ounces

Copper:

5,038 kilograms

11,107 pounds

Comments:

1964: Geology, Exploration and Mining 1964, page 152.