

SOUTHWEST REGION

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SUMMARY AND TRENDS

The Southwest region hosts one metal mine, one coal mine, numerous industrial mineral quarries and sand and gravel and crushed aggregate quarries.

Exploration activity indicators for Southwestern British Columbia were positive for 2004. The total exploration expenditures and the number of major exploration projects started during the period are up from the previous year. Exploration spending for 2004 is estimated to be \$3.8 million, up approximately 25% over 2003 (Figure 6.1). However, the Southwest region has not seen the significant increases in activity over the past 5-year period as in the province overall.

At year's end 2004, twelve major exploration projects started in 2004 compared to nine major projects for the region in 2003. There were 20 drilling projects for a total amount of about 22 000 metres, down from the 40 000 estimated for 2003 (Figure 6.2). The amount of drilling at the Myra Falls operation alone accounts for a good portion of the difference in metres drilled. The region's major exploration projects are shown in Figure 6.3 and are listed in Table 6.2.

MINES AND QUARRIES

Major mines and quarries are shown in Figure 6.3 and major mines and quarries are listed in Table 6.1.

Production remained steady at the Myra Falls zinc-copper-gold-silver mine through a change in ownership from Boliden Westmin (Canada) Ltd to Breakwater Resources Ltd in July, and increased 21% at the region's Quinsam Coal mine. The three quarries on Texada Island, locale of significant western North America limestone production, produced more than 5 million tonnes again this year, despite 4 months of shutdown of operations at the Blubber Bay quarry of Ash Grove Cement Corporation. Rounding out major non-aggregate quarries in the region, the Sumas Mtn quarry, nearing its 100th year of operation in 2005, produced clay, shale and sandstone. Extraction also continued at the Benson Lake limestone quarry and the Mount Meager pumice quarry. The Monteith Bay geyserite quarry of Lehigh Northwest Cement Limited, normally on the list of major quarries, was quiet in 2004 with no production recorded. The

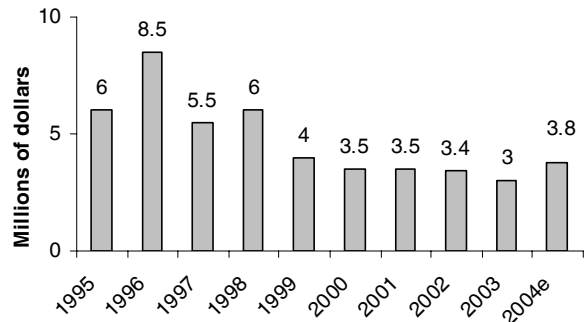


Figure 6.1. Annual exploration spending, in millions of dollars, Southwest British Columbia.

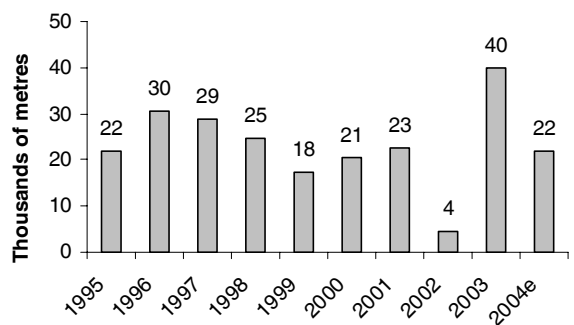


Figure 6.2. Annual exploration and development drilling, in thousands of metres, Southwest British Columbia.

Apple Bay geyserite quarry of Electra Gold Ltd joined the rank of major quarries in 2004 with approximately 100 000 tonnes mined.

Metals

The **Myra Falls** zinc-copper-gold-silver mine, in operation since 1966, is now owned and operated by NVI Mining Ltd, a subsidiary of zinc producer Breakwater Resources Ltd, through acquisition from Boliden Westmin (Canada) Ltd in July 2004. In excess of 24 million tonnes of massive sulphide copper-zinc-gold-silver ore has been mined over the past 28 years from several orebodies within the known 6-kilometre deposit trend. Ore mined to date has averaged 5.0% zinc, 1.8% copper, 2 g/t gold and 52 g/t silver. The Myra Falls operation will continue to employ approximately 400.

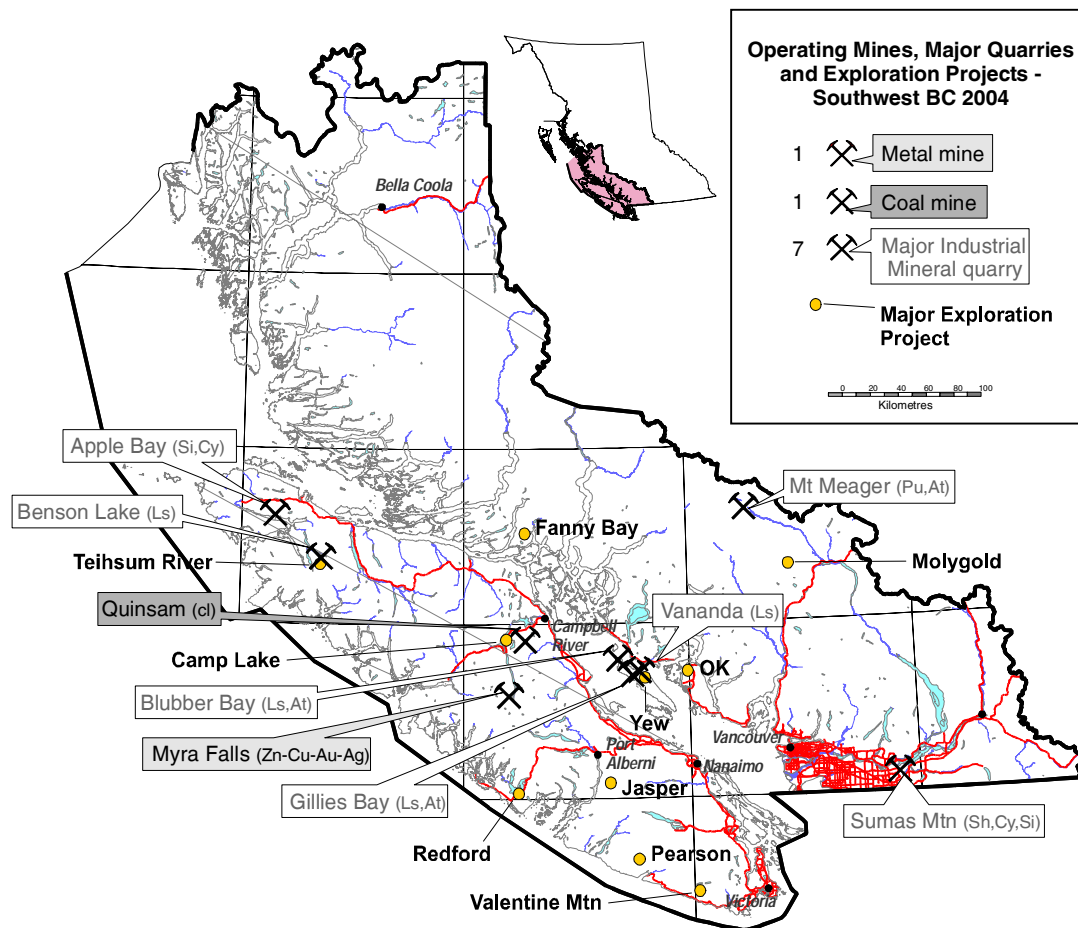


Figure 6.3. Mines, quarries and major exploration projects – Southwest British Columbia 2004.

TABLE 6.2. MAJOR EXPLORATION PROJECTS – SOUTHWEST BRITISH COLUMBIA 2004

Property	Operator	Minfile (NTS)	Commodity	Deposit Type	Program	Electoral Region
Camp Lake	Better Resources Ltd	(92K/04E)	Cu-Au-magnetite	Skarn	G; P; GC; MG; DD (576m)	North Island
Fanny Bay	Castilian Resources Corp	092K 023, 028	Au-Ag	Mesothermal Vein	A; TR; GC; 3D-IP, DD(1198m)	Powell River-Sunshine Coast
Jasper	Inspiration Mining Corp	092F 080, 081	Cu-Pb-Zn-Ag-Au	Massive sulphide	G; P; GC; MG; VLF	Alberni-Qualicum
Molygold	TTM Resources Inc	092JW 007, 017, 018	Mo-Cu / Au-Ag	Porphyry ? / vein	G; P; GC; UTEM; AB-MG/EM	West Van-Garibaldi
Myra Falls mine	NVI Mining Ltd (Breakwater Resources Ltd)	092F 330, 071, 072, 073	Zn-Cu-Pb-Au-Ag	VMS	DD (8500 m)	North Island
OK	Goldrush Resources Ltd	092K 008, 057	Cu-Mo±Ag ±Au	Porphyry	AB-MG/EM	Powell River-Sunshine Coast
Pearson	Emerald Field Resources Ltd	092C 025 and others	Cu-Ni-PGE	Magmatic	DD (300m)	Malahat-Juan de Fuca
Quinsam mine	Quinsam Coal Corp (Hillsborough Resources Ltd)	092F 319	Coal	Sedimentary (thermal coal)	DD (470m)	North Island
Redford	Logan Resources Ltd	092F 001, 004, 454...	Au-Cu-Co	Int-related gold / Skarn	DD (930m)	Alberni-Qualicum
Teihsun River	Red Lake Resource Ltd	092L 350	Au-Cu-Zn	Epi vein / Cu skarn	GC; MG; P; DD (1000m)	North Island
Valentine Mtn	Beau Pre Explorations Ltd	092B 108	Au-Ag	Mesothermal Vein	DD (1200m)	Malahat-Juan de Fuca
Yew	555 Corporate Ventures Inc	092F 516	Au-Cu-Ag	Epi vein / Cu skarn	DD (1800m)	Powell River-Sunshine Coast

A = access; trail, road construction on claims; AB-EM = airborne electromagnetics; AB-MG = airborne magnetics; BU (X tonnes) = bulk sample (weight in tonnes); DD (Xm) = diamond drilling totaling X metres; EN = environmental baseline studies/monitoring, remediation work; G = geology, mapping, etc; GC = geochemical sampling (rock, soil, silt, etc); GP = geophysics (general); IP = Induced Polarization; 3D-IP; MG = magnetics; MS = metallurgical studies; P = prospecting; TR = trenching, UG (X m) = X metres of underground development; UT = UTEM

TABLE 6.1. MAJOR MINES AND QUARRIES – SOUTHWEST BRITISH COLUMBIA 2004

Mine / Quarry Operator	Location / community	Commodities	Production in 2004	Employment -person years	Reserves as of January 1, 2004
Myra Falls NVI Mining Ltd (Breakwater Resources Ltd)	Campbell River	Zn-Cu-Au-Ag	56 000 t Zn, 11 400 t Cu, 790 kg Au, 22 400 kg Ag	400	7.747 M t at 6.3% Zn, 1.2% Cu, 1.2 g/t Au, 40 g/t Ag (p/p)
Quinsam Quinsam Coal Corp (Hillsborough Resources Ltd)	Campbell River	Thermal coal	410 000 t clean coal	40	23.6 M t proven and probable
Apple Bay Electra Gold Ltd	Northern Van Island	Geyserite	~ 100 000 t		5 million t
Benson Lake Imasco Minerals Inc	Northwest Van Island	Limestone	32-36 000 t	3	100+ years
Blubber Bay Ash Grove Cement Corp	Texada Island	Limestone, dolomitic lst, lst aggregate	981 150 t		
Gillies Bay Texada Quarrying Ltd (Lafarge Canada Inc)	Texada Island	Limestone, lst aggregate	4.03 million t	72	100+ years
Vananda Imperial Limestone Company Ltd	Texada Island	Limestone	236 000 t	8.5	50 years
Monteith Bay Lehigh Northwest Cement Ltd	Northwest Van Island	Geyserite	0 t in 2004 51 000 t in 2003		
Mount Meager Great Pacific Pumice Ltd	Pemberton	Pumice	14 000 cubic metres	4	100+ years
Sumas Mtn Clayburn Industries Ltd	Abbotsford	Clay, shale and sandstone	~ 500 000 t	10-20	

Approximately 1 million tonnes of ore from the H-W, 43 and Battle-Gap zones are currently processed in the mill each year producing a copper concentrate, zinc-silver concentrate and a gold concentrate. A small amount of high-grade ore is also being recovered from the Lynx pit, the mine's original production area, before this surface site is sterilized with on-going tailings impoundment and reclamation work. NVI Mining Ltd is in the process of optimizing the mining plan and is considering the addition of a lead circuit to gain production value from lead, increase recovery of silver and also reduce penalties incurred from the presence of lead in the zinc and copper concentrates currently shipped to smelters.

Reported by the company in a July 2004 news release, proven and probable mineral reserves as of December 31, 2003 were 7.747 million tonnes grading 6.3% zinc, 1.2% copper, 1.2 g/t gold and 40 g/t silver, sufficient for 7 more years of production. Measured and indicated resources reported should account for an additional 5 years of production. Measured and indicated resources at the end of 2003 were 10.388 million tonnes at 7.8% zinc, 1.4% copper, 1.7 g/t gold and 56 g/t silver (including the proven and probable reserves noted above) and inferred resources were 2.284 million tonnes at 4.9% zinc, 1.1% copper, 1.4 g/t gold and 57 g/t silver.

In 2004, approximately 8500 metres of core drilling was completed adjacent to the H-W and 43 zones now in production and a drill program targeting the Marshall East

area was being considered by the company late in the year. Drifting toward the Marshall East zone to provide drilling stations was completed in 2003. The company has a significant number of exploration targets identified, some of which are located adjacent to active mining zones and others located apart from current mining areas.

Coal

Hillsborough Resources Ltd through its wholly owned subsidiary Quinsam Coal Corporation, increased production at its **Quinsam** underground thermal coal mine located west of Campbell River. The mine expects to produce 410 000 tonnes of clean coal in 2004 up 21% from the 340 000 tonnes extracted in 2003. The mine employs a work force of about 40 people.

In 2004, the company drilled 470 metres at the mine property in the search for more coal that resulted in an addition to its resource base. Quinsam Coal Corporation also explored outside the mine site for coal this year in the Kootenay region of BC at the Bingay Creek property (see Kootenay region report).

Industrial Minerals

Limestone / Dolomitic Limestone

Triassic Quatsino Formation limestone is a significant resource on **Texada Island**, where three quarries, Gillies Bay, Blubber Bay and Vananda, generate approximately 5 million tonnes of product annually. Texada Quarrying Ltd (Lafarge Canada Inc) operates the **Gillies Bay** limestone quarry, Ash Grove Cement Corporation operates the **Blubber Bay** limestone/dolomitic limestone quarry and Imperial Limestone Company Ltd operates the **Vananda** limestone quarry.

At the **Blubber Bay** quarry, Ash Grove Cement Corporation was faced with cessation of production in September due to loss of contracts for approximately one-half of its production. From January to September 2004, Ash Grove Cement Corp shipped a total of **981 150 tonnes** from the Blubber Bay quarry: 18 150 tonnes of dolomitic limestone for agricultural use (a new product for 2004), 66 000 tonnes of chemical-grade limestone, 316 000 tonnes of cement limestone, 106 000 tonnes of limestone for agricultural use, 66 000 tonnes of limestone for industrial remediation use, and 409 000 tonnes of crushed limestone aggregate. Mining operations will resume at the Blubber Bay quarry in 2005 at a reduced level. The company expects to extract approximately 400 000 tonnes of crushed limestone aggregate and increase the level of dolomitic limestone production to continue to supply its new agricultural product and also expand its marketing into the glass-making industry.

The **Gillies Bay** quarry of Texada Quarrying Ltd (Lafarge Canada Inc) is the largest of the three Texada Island quarries. Late in 2004 it added 7 employees bringing the total employed to 72. A total of **4.03 million tonnes** of rock is forecast to be produced in 2004 consisting of 3 086 520 tonnes of cement limestone,



Figure 6.4. **Blubber Bay** limestone, crushed aggregate quarry, photo courtesy of Ash Grove Cement Corporation.

590 070 tonnes of chemical-grade limestone, and 354 042 tonnes of riprap and crushed aggregate.

At its **Vananda** quarry, Imperial Limestone Company Ltd estimates that **236 000 tonnes** of chemical-grade limestone will be extracted and marketed for use in the Seattle building market. A similar level of production is anticipated in 2005.

Aggregate

The large local demand for aggregate generated by the southwest population base and opportunities in the western North America market support a number of sand and gravel and crushed stone quarries. Two of the three Texada Island limestone producers have in the past few years expanded into the crushed stone market as well.

Construction Aggregates Ltd's (Lehigh Northwest Cement Limited) **Sechelt** operation has a renewed mine plan to produce 7.5 million tonnes of sand and gravel per year, making it the largest operation of its kind in Canada. Its reserve of 250 million tonnes would last until year 2035 at current mining rates.

A significant operation in the Lower Mainland is the **Cox** crushed stone quarry of Mainland Sand & Gravel Ltd located along the south side of the Fraser River at the base of Sumas Mountain. About 95% of the average annual production of 1.4 million tonnes is shipped by barge to company depots down river or directly to large local customers. The remaining aggregate is trucked from the site. With construction booming this year, the company estimates that 1.7 million tonnes will be produced in 2004. Mainland Sand & Gravel have resources on an adjacent property estimated at 160 million tonnes.

There are several additional large quarries that have permits pending or are in the project review stage. Eagle Rock Materials Ltd (Polaris Minerals Corp) have received a Project Approval Certificate for the **Eagle Rock** aggregate operation near Port Alberni designed to produce 3 to 6 million tonnes per year and employ as many as 80. Qualark Resources Inc and the Yale First Nation have proposed the **Hillsbar** project, located across the Fraser River from the Village of Yale, as an 8 million tonne-per-year aggregate operation with a placer gold recovery plant. Orca Sand & Gravel Ltd (Polaris Minerals Corp) has proposed the 4 to 6 million tonne per year **Orca** sand and gravel operation near Port McNeil. Orca Sand & Gravel and its partner the Namgis First Nation are seeking a project arrangement with the Kwakiutl First Nation.

Silica-alumina and Silica Rock

Silica-alumina and silica rock is used in cement-making. Lehigh Northwest Cement Limited did not produce any geyserite as a silica-alumina product from its quarry at **Monteith Bay** on western Vancouver Island in 2004; 51 000 tonnes were produced from Monteith Bay in 2003. At the **Apple Bay** quarry located west of Port Hardy on Vancouver Island, Electra Gold Ltd joined the

rank of producers and mined and sold approximately 100 000 tonnes of geyserrite in 2004 as silica-alumina product to Ash Grove Cement Corporation as part of a 5-year contract. The company also quarried and shipped a 7200 tonne bulk-sample of silica product to Lehigh Northwest Cement Limited. Silica-alumina and silica product is also produced at the Sumas Mountain shale, clay and sandstone quarry described below.

Shale, Clay and Sandstone

Production of shale, clay and sandstone continued at the **Sumas Mountain** quarry located about 8 km east of Abbotsford. Clay is utilized in the manufacture of brick and other clay products at the Clayburn Industries Ltd plant located near old downtown Abbotsford and also by Sumas Clay Products Ltd in the production of flue pipe and facing bricks. Raw material from this quarry is also now used in the manufacture of cement. Shale is used as a source of silica-alumina and sandstone as silica by local manufacturers of cement, making the mineral resource of this quarry well utilized. Approximately 500 000 tonnes of clay, shale and sandstone are now annually mined from this quarry site located on the east slope of McKee Peak.

Ironwood Clay Company Inc mines cosmetic/medical clay seasonally from its **De Cosmos Lagoon** on Hunter Island located west of Bella Coola. In 2004, the company did not extract any clay, instead relying on its inventory of 850 tonnes produced in 2003.

Carrie Cove Cosmetics Inc also markets clay for cosmetic/medical application, primarily to the international health spa industry. The company uses a mined inventory of approximately 1200 tonnes from its **Carrie Cove** site in the Comox Valley.

Dimension Stone / Construction Rock

The profile of dimension stone quarrying has changed over the last several years reflecting current market preferences in the construction sector. There has been a decrease in production in the Southwest region of lighter-coloured granites and increase in the amount of basalt quarried and marketed primarily for landscape wall construction rock.

Local stone processing plants have been cutting more imported stone this year to meet demand for currently popular dark and orange-brown coloured products. Margranite Industries Ltd of Surrey relied on its inventory of BC stone and did not quarry at its **East Anderson River, Beaverdell** and **Skagit Valley** quarries in 2004.

Huckleberry Stone Supply Ltd of Burnaby produced basalt, primarily for application in landscape wall construction, from five small quarries in the Whistler and Squamish areas. Total production from its **Spumoni, Cabin, Freeman, Rubble** and **Huckleberry** quarries (MINFILE 092GNW100 and others) amounted to approximately 11 500 tonnes in 2004.

Mountain High Properties Ltd held the historic **Jervis Inlet** slate quarry (MINFILE 092JW 029), and the **Spike** basalt and **Gunsight** phyllite quarries in the Whistler area until a change in ownership sometime in 2004. Total 2004 production from these quarries was unknown at the time of writing.

Matrix Marble and Stone Corporation processes imported and domestic materials at its plant near Duncan, and extracts marble from three quarries on Vancouver Island for marketing to the high-end building industry. In 2004, the company quarried 194 tonnes of 'Black Carmanah' marble from its **Gordon River** site (MINFILE 092C 086) and will quarry between 260 to 350 tonnes total of 'Island White' and 'Tlupan' Blue' marbles from its **Hisnet Inlet** (MINFILE 092E 020) and **Tahsis Inlet** (MINFILE 092E 070) quarries respectively.

Hardy Island Granite Quarries Ltd extracted 2600 tonnes of medium to coarse-grained light grey granodiorite from the **Hardy Island** quarry (MINFILE 092F 425) this year and about 600 tonnes of fine-grained andesite from the **Haddington Island** quarry (MINFILE 092L 146). Both of these sites are known as the source of dimension stone utilized in the construction of historic buildings in the province.

Pumice, Tephra and Lava Rock

Great Pacific Pumice Ltd produced approximately 14 000 cubic metres of pumice from its **Mount Meager** site north of Pemberton.

EXPLORATION TRENDS

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At year's end 2004, twelve major exploration projects started in 2004 compared to nine major projects for the region in 2003. There were 20 drilling projects for a total amount of about 22 000 metres, down from the 40 000 estimated for 2003 (Figure 6.2). The amount of drilling at the Myra Falls operation alone accounts for a good portion of the difference in metres drilled. The region's major exploration projects are shown in Figure 6.3 and are listed in Table 6.2.

EXPLORATION PROJECTS

North Island

Part of the **Merry Widow** camp located 40 km southwest of Port McNeil on Vancouver Island was optioned by Vancouver based junior Grande Portage Resources Ltd Exploration work planned for 2004 had not started as of early December. The Merry Widow (MINFILE 092L 044), classed as an iron skarn, and associated deposits produced almost 1.7 billion kilograms of iron in the 1950s and 1960s. The nearby Old Sport (MINFILE 092L 035) mine, classed as a precious metal-bearing copper skarn, produced 506 million kilograms of iron, 41 million kilograms of copper and 3.84 million grams of gold and 11.7 million grams of silver.

Immediately south of the Merry Widow and Old Sport occurrences is the **Teihsum River** gold-copper-zinc (MINFILE 092L 350) occurrence being explored by Red Lake Resources Inc Mineralization is reported to be similar to the base and precious metal-bearing sulphide mineralization of the Merry Widow camp and to the gold vein deposits of the Zeballos camp. Starting late in the year, the company tested a number of known precious and base metal-bearing sulphide showings with geophysical surveys, sampling and 1000 metres of core drilling in 10 holes.

Campbell River

Better Resources Ltd optioned the **Camp Lake** property from Minland Resources located 25 km west of Campbell River. There are numerous showings of copper-gold-magnetite in volcanic rocks. Triassic Karmutsen Formation and Bonanza Formation volcanic rocks and intrusive rocks occur on the claims. These showings are one of the new discoveries in BC this year. Better Resources conducted geological mapping, minor hand-trenching, rock and soil sampling and a ground-based magnetics survey and 576 metres of drilling in 7 holes.

Minland Resources is also active further north on Vancouver Island between Sayward and Campbell River on a number of different showings and properties, including the Memekay and Thunder Mtn. The **Memekay** is a previously undocumented showing of copper-zinc-bearing massive sulphides in metasedimentary rocks discovered by prospecting. The showing was recently mapped and sampled with grab sample values reported up to 34077 ppm copper, 61885 ppm zinc, 85.6 ppm silver and 28741 ppm copper, 88956 ppm zinc, and 50.5 ppm silver. Additional massive sulphide mineralization in float is also reported to have been recently found.

Also in the Campbell River area another private company vended to Compliance Energy Corporation, the known Hamilton Lake coal deposit (MINFILE 092F 313)



*Figure 6.5. Better Resources Ltd optioned and completed work on the **Camp Lake** property to test new showings of copper, gold and magnetite in volcanic rocks.*

with a 1986 reported indicated reserve of over 11 million tonnes of coal. Compliance Energy refers to this as its **Bear** metallurgical coal project. The company will complete a trenching and sampling program in late 2004 to test low strip ratio areas of the known coal deposit to define a 70 000 tonne open-pit bulk sample area. Bulk sampling and drilling are planned for 2005.

At the **Myra Falls** zinc-copper-gold-silver mine approximately 8500 metres of core drilling was completed adjacent to the H-W and 43 zones now in production and a drill program targeting the Marshall East area was being considered by the company late in the year. Drifting toward the Marshall East zone to provide drilling stations was completed in 2003. The company has a significant number of exploration targets identified, some of which are located adjacent to active mining zones and others located apart from current mining areas.

In 2004, Quinsam Coal Corporation drilled 470 metres at its Quinsam mine property in the search for more coal that resulted in an addition to its resource base. The company also explored outside the mine site for coal this year in the Kootenay region of BC at the Bingay Creek property (see Kootenay region report).

Ucluelet / Port Alberni

Logan Resources Ltd completed a major program at its **Redford** property located 20 km northeast of Ucluelet. The property includes twenty documented MINFILE occurrences and the newly outlined Seamus zone that has characteristics similar to intrusion-related gold deposits. The other occurrences include iron skarns, copper skarns and limestone. The Brynnor mine (MINFILE 092F 001), a past producer of magnetite and limestone is one of the documented occurrences. Logan Resources completed 930 metres of core drilling in 6 holes at the Seamus zone and may conduct further drilling to test for downdip extension. The company is also targeting sulphide mineralization at the Tony copper skarn occurrence

(MINFILE 092F 004) where chip sampling over 5 metres is reported to have returned 0.559% copper, 0.0464% Co and 0.164 g/t gold.

Barry Hanslit worked his **Big Southeaster** property located 15 km southeast of the town (MINFILE 092F 078, 285, 444) by testing for precious metal bearing veins within shears and faults. Geological mapping, rock sampling, surveys of showings and 2 drillholes totalling 150 metres were completed in 2004. The drillholes targeted geophysical anomalies identified by previous operators.

SYMC Resources Limited continued its commitment to exploration and development in the Port Alberni area with its Dauntless, Mactush, MC and Cameron Valley properties. The Dauntless property has a 2002 reported inferred mineral resource of 27 750 tonnes grading 22.3% copper, 44.60 g/t silver and 1.30 g/t gold (SYMC News Release July 12, 2002). In 2004, SYMC completed roadwork, trenching, sampling and mapping at the **Dauntless** property and planned to follow up with 1000 metres of drilling to further test vein targets. The company also reports numerous undocumented audits on the property north of the Dauntless occurrence (MINFILE 092F 168).

On the **Mactush** property (MINFILE 092F 012), SYMC Resources reports copper-silver bearing stockwork veins and soil geochemical anomalies in the 'Bowl zone' that warrant further exploration. No exploration work was completed at Mactush in 2004.

Inspiration Mining Corporation has prospective copper-zinc-lead-silver-gold massive sulphide targets on its **Jasper** property located southeast of Port Alberni. The company completed GPS grid control surveys, soil and rock sampling, prospecting and ground magnetics and VLF geophysical surveys and reported that eleven showings of sulphide mineralization were discovered and/or documented in addition to three MINFILE occurrences. The company has identified three main target areas with up to 15 showings of mineralization within a 4-km belt of volcanic rocks. Anomalous base metal soil geochemistry with precious metal values are reported in priority areas.

Port Renfrew / Jordan River / Sooke

Located 10 km northwest of Port Renfrew, the **Pearson** project comprises several documented Fe skarn occurrences including MINFILE 092C 025 and mafic intrusive rocks that are being explored for copper-Ni-PGE by private company Emerald Field Resources Ltd under an option agreement with a local prospector. The company completed 300 metres of drilling in 7 short holes. Emerald Field also optioned a nearby property known as **Karen**, where it completed geological mapping and sampling.

Also in the Port Renfrew area, San Juan Quarries,



Figure 6.6. A massive sulphide occurrence on the **Jasper** property of Inspiration Mining Corporation.

owned by Industrial Stone Supply Ltd of Nanaimo, conducted bulk-sampling on its **Melanie** slate quarry.

Beau Pre Explorations Ltd began a 4000 metre drilling program in late November to continue work on its **Valentine Mountain** gold-silver project (MINFILE 092B 108) located near Sooke, west of Victoria. The company expects to complete 1200 metres of the drilling by year-end in phyllites and schists of the Leech River Formation. Samples of narrow quartz veins cutting both metasedimentary and metavolcanic rocks have returned high gold values.

Beau Pre also optioned the **Sunro** copper property (MINFILE 092C 073) located near Jordan River also west of Victoria for its known copper resource and to investigate its potential for gold-nickel-cobalt.

Texada Island

On Texada Island, several companies completed drilling programs to test limestone. Texada Quarrying Ltd completed approximately 900 metres of drilling at Gillies Bay for geochemical testing of part of its large mineral resource. Lehigh Northwest Cement Limited and Chemical Lime Company of Canada Inc completed approximately 700 m and 500 m of drilling respectively on a jointly held property on the Island. 555 Corporate Ventures Inc completed approximately 1800 m of drilling on its **Yew** property (MINFILE 092F 516) to test for gold-copper and silver on this known precious metal-bearing copper skarn occurrence.

Pathfinder Resources Ltd optioned the **Dude** porphyry Cu \pm Mo \pm Au property (MINFILE 092F 276) and completed rock and soil sampling to verify results of previous work as part of its initial assessment of the prospect.

Coastal Mainland

On Phillips Arm, Castillian Resources Corp executed a 2-phase exploration program on its **Fanny Bay** property that includes the past-producing Doratha Morton and Alexandria gold-silver-copper mines (MINFILE 092K 023 and 028). In four years over the period 1898 to 1934, the Doratha Morton produced 143.9 kilograms of gold, 333.9 kilograms of silver and 1094 kilograms of copper from 9319 tonnes of ore. At the Alexandria mine, 1694 tonnes were mined and milled to yield 22.2 kilograms of gold, 40.6 kilograms of silver and 1761 kilograms of copper. The gold-bearing quartz veins occur within a sheared contact between diorite and metamorphosed rocks. Phase 1 was completed mid-year and consisted of compilation of historical data, rehabilitation of access road, construction of a camp, establishment of 26.5 km of grid, a 3D-IP geophysical survey and 235 m trenching with rock sampling. Phase two consisted of the completion of seven core drillholes totalling 1198 m to test geophysical anomalies in the Camp zone that is on strike and within a trend that includes the past producing mines.

To the north of the Fanny Bay project, Interactive Exploration Inc started work on its **Shamrock** silver-copper-zinc-gold property (MINFILE 092K 112) located on Longborough Inlet, and Goldnev Resources Inc acquired an option on the nearby **Hayden Bay** gold-silver occurrence (MINFILE 092K 038). At the Shamrock property, Interactive Exploration completed magnetics and VLF-EM geophysical surveys over known soil geochemistry anomalies to better define drill targets and completed 608 metres of drilling in 3 holes. The drilling component of the program was cut short due to logging activity in the immediate target area. Goldnev Resources completed a property visit at Hayden Bay in order to help assess the area and outline next steps.

Pacific Topaz Resources Ltd conducted geological mapping, rock and soil sampling and a VLF-EM geophysical survey on its **Nugget Queen** property (MINFILE 092L 187) located on the coastal mainland about 35 km northeast of Port Hardy. During four years of operation, this past producer generated 20.9 kilograms of gold and 44.9 kilograms of silver with copper, lead and zinc from 610 tonnes. The company reported that the 2004 surveys have defined coincident geochemical and geophysical anomalies along extensions to the known mineralization.

Goldrush Resources Ltd conducted an airborne geophysical survey on its optioned **OK** property that includes the OK North and OK South Cu-Mo porphyry occurrences (MINFILE 092K 008 and 057) located approximately 40 km north of Powell River. One resource estimate for OK North includes 228 400 000 tonnes grading 0.32% Cu and 0.020% Mo at a 0.20% Cu cut-off (CanQuest Resource Corporation, 1989 report).

Near Pemberton, TTM Resources Inc completed work on several known occurrences (MINFILE 092JW 007, 017 and 018) and on newly identified mineralization as part of its **Molygold** project. Exploration targets included molybdenum-copper in fractures and quartz veins and gold-silver in quartz veins located adjacent to a large (300 m x 5 km) quartz-sericite alteration/gossan zone, and four separate zones of base-precious metal mineralization exposed due to recent ice melt. A porphyry molybdenum-copper deposit model and base/precious metal vein model was used for the 2004 exploration program that consisted of geological mapping and sampling of the Breccia, Camp and Road zones, ground-based UTEM geophysics on portions of the Breccia and Camp zones, airborne magnetics and EM geophysical surveys over several targets totalling 843 km, and prospecting of the Red, Gold and Copper-Zinc-Gold zone.

Chilliwack / Harrison Lake / Hope

Sino Pacific Development Ltd completed a small program in the search for gold at its **Ophira** project located in the Chilliwack valley. The company tested an area with known gold-bearing veins and shears (MINFILE 092HSW063) with grid work, sampling and 375 metres of drilling. Results are yet to be reported.

In the **Harrison Lake** area, magmatic nickel +/- copper +/-PGE deposits continue to be of interest in a belt of sulphide-bearing ultramafic rocks host to the former producing Giant Nickel mine. At Giant Nickel, nickel-copper-chromium-cobalt-gold-silver-PGE were produced from the Pride of Emory (MINFILE 092HSW004), Star of Emory (092HSW093) and Giant Mascot (092HSW125).

Leader Mining International Inc announced in August 2004, a project manager for its **Cogburn** magnesium deposit (MINFILE 092HSW081) located approximately 120 km east of Vancouver and 23 km northeast of Hope. The property has a measured mineral resource of 25.5 million tonnes grading 40.5% magnesium oxide or 24.5% magnesium (News Release, July 10, 2002). An April 2003 feasibility study outlined a US\$1.3 billion development producing 131,000 metric tons per annum of high-purity magnesium metal and alloys. Project development work is now being conducted through North Pacific Alloys Limited, a subsidiary of Leader Mining International Inc. A project description was submitted to the BC Environmental Assessment Office in November 2004 to initiate project review.

An option on the **Carolyn** or Ladner Creek gold mine (MINFILE 092HNW007) was acquired by Century Mining Corporation in early 2004. The Carolyn mine located approximately 18 km northeast of Hope, is one of five past gold producers in the Coquihalla gold belt. During three years of operation from 1982 to 1984, the mine produced 1354 kilograms of gold from 799 119 tonnes of ore, and in 1988, 12.5 kilograms of gold were

recovered from processing of tailings. Low recoveries of gold hampered production during its operation. The company planned to undertake exploration at the site, update an earlier feasibility study and rehabilitate the milling facility in 2004. As of late November the field activities had yet to begin on this prospect.

Late in the year Aries Resource Corporation acquired an option on the **Mara** property (MINFILE 092HNW029) located immediately southeast of Boston Bar. The occurrence is documented as a magmatic nickel-copper-silver showing hosted in ultramafic rocks.

OUTLOOK FOR 2005

The mineral exploration season in 2005 is projected to be an active and successful one. The Cogburn magnesium project should be well into the permitting stage. Others such as the Bear metallurgical coal, Carolin Gold, OK copper-molybdenum and Hushamu projects, are considered as having high potential for defining / confirming mineral resources. A number of exploration projects or parts of exploration projects originally planned for 2004 are now to be executed sometime in 2005. In addition, programs are anticipated on a few properties acquired by companies late in 2004. Overall exploration spending in the region should be equal to or better than in 2004. An increase in expenditures on precious metal targets and coal will likely be seen if the prices of gold and coal stay high.

Projects identified for the Southwestern region of BC that are anticipated to proceed during the 2005 field season, include:

- **Abo Gold** - drilling at the **Abo Gold** project at Harrison lake by Northern Continental Resources Ltd;
- **Bear metallurgical coal** - bulk sampling and drilling on the **Bear** metallurgical coal project (Hamilton Lake deposit) by Compliance Energy Corp;
- **Carolin Gold** - field surveys, drilling and updating a feasibility study on the **Carolin Gold** project by Century Mining Corp;
- **Cogburn magnesium** – post-feasibility work related to permitting and development of the **Cogburn** magnesium project by North Pacific Alloys Ltd, a subsidiary of Leader Mining International Inc;
- **Dauntless & Mactush (Bowl zone) properties** - drilling and trenching at both properties, including the newly outlined Bowl zone at Mactush, by SYMC Resources Ltd;
- **Dude property** - drilling at the **Dude** (Tex) property on Texada Island by Pathfinder Resources Ltd;

- **Fanny Bay project** - additional IP geophysical surveys and drilling at the **Fanny Bay** project of Castillian Resources Corp;
- **Harrison Lake** area - an airborne geophysical survey in the **Harrison Lake** area by Sutcliffe Resources Ltd for magmatic Ni +/-Cu +/-PGE deposits in the belt of sulphide-bearing ultramafic rocks on the east side of the lake;
- **Hushamu property** - Lumina Copper Corp announced late in 2004 a private placement with a portion of the proceeds to be directed to its **Hushamu** property in the North Island copper-gold belt;
- **Jasper property** - an airborne geophysical survey and drilling at Inspiration Mining Corp's **Jasper** property;
- **Lady A, B and C occurrences** - exploration at the known volcanogenic Lady A, B and C occurrences by Better Resources Ltd;
- **Merry Widow property** - a program by Grande Portage Resources Ltd at its **Merry Widow** property to test for base and precious metals;
- **Molygold** - geological evaluations of the Road, Camp and Breccia zones at TTM Resources Inc's **Molygold** project;
- **Myra Falls mine** - underground drilling at the **Myra Falls** operation of NVI Mining Ltd;
- **OK copper-molybdenum prospect** - drilling at the **OK** copper-molybdenum prospect by Goldrush Resources Ltd;
- **Shamrock** - completion of a drilling program on the **Shamrock** property of Interactive Exploration Inc;
- **Redford property** - drilling at the **Redford** property by Logan Resources Ltd;
- **Texada Island quarries** - further testing of limestone resources at **Texada Island** quarries and properties; and
- **Valentine Mtn.** - completion of a drilling program and bulk sampling at **Valentine Mtn.** by Beau Pre Explorations Ltd

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