

## SOUTHWEST REGION

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### SUMMARY

The year 2001 began in the Southwest Region with great anticipation for both a dramatic increase in exploration activity and continued stability in mineral production. However, as happened in many other parts of the world during the latter part of the year, declining metal prices and reduced demand for industrial minerals, along with a bear investor market caused the deferral of some major exploration projects and the suspension of operations at the region's only metal mine. As a result, the overall level of activity is about the same as in 2000 but with one profound difference: the number of major exploration projects increased from three to eight. Most activity took place on Vancouver Island and in the Hope - Harrison Lake area.

Boliden-Westmin (Canada) Ltd. was on its way to an outstanding year at the Myra Falls Cu-Zn-Au-Ag operation within Strathcona Park on central Vancouver Island. The company met or exceeded all production targets during the first three quarters. However, as a result of factors both within and outside of the company, Boliden announced a decision to suspend mining and milling operations at the mine at the end of November 2001. The company also completed corporate re-domiciliation from Toronto to Stockholm, and decided to focus solely on its Scandinavian operations. It is attempting to sell the Myra Falls Operation. Exploration at the mine, which continued to focus on upgrading known resources close to existing infrastructure, was successful in 2001.

Hillsborough Resources Corporation continued mining and shipping coal from the Quinsam Coal Mine near Campbell River on Vancouver Island. Thermal coal produced is sold to markets in the Pacific Northwest. Exploration at the mine resumed in 2001, and was successful in building additional coal reserves in the 7-South Area. Exploration drilling commenced in the Quinsam East area as well. Hillsborough also commenced a major surface and underground exploration program at its T'Sable River Project south of Courtenay on Vancouver Island and are investigating the coal bed methane potential of their land holdings on the island.

Priority Ventures Ltd. initiated a new coal and coal bed methane exploration drilling program at the Dove Creek Project west of Courtenay on Vancouver Island. The initial three-hole program discovered multiple seams of possible coking coal and confirmed the presence of methane gas. Follow-up drilling programs planned for 2002 will target both coal and coal bed methane. It should be noted that coal

bed methane exploration and production in British Columbia is monitored by the Oil and Gas Commission, and is not included in Mines Branch statistics.

Several high potential metallic exploration projects are being undertaken by under-funded junior companies on Vancouver Island. Two of these with sporadic activity in 2001 were: SYMC Resources Ltd.'s Macktush and Dauntless Projects near Port Alberni, and Newmex Minerals Inc.'s Privateer and Golden Gate Projects near Zeballos. At Macktush, SYMC completed trenching and shallow diamond drilling of gold quartz vein targets. As well, the company completed successful prospecting for porphyry copper-gold-molybdenum mineralization on the Macktush property and for copper skarn mineralization on the Dauntless property. Bulk sampling and shallow diamond drilling is planned in early 2002 for the Dauntless Project, located immediately north of Macktush. At Privateer, Newmex completed underground exploration drifting and raising on new, high-grade gold quartz veins discovered within the old mine workings. Surface exploration work was commenced on its extensive land position centered on the Golden Gate prospect, near Zeballos, another past gold producer.

In the Hope - Harrison Lake Area, over 1250 new mineral claim units were staked in 2001. This brings the number of new mineral claim units staked in the last two years in this 75 km by 25 km area to over 2000. Most exploration activity targeted Ni-Cu-PGE mineralization hosted within metamorphosed slivers and bands of gabbroic rock in the ophiolitic Cogburn Assemblage. This includes grass-roots work by Garex International Exploration on their Harrison Lake Project, Santoy Resources Ltd. on their Emory Creek Project, and Leader Mining International Ltd. on their Cogburn Project. During the work, Leader discovered a large resource of Mg-bearing ultramafic rocks at Cogburn, and refocused their efforts towards exploring and developing the Mg metal project beginning with definition drilling in late 2001. Also, three prospector assistance grantees sought Ni-Cu-PGE mineralization in the area in 2001. David Haughton successfully optioned the Jason Project, Murray McClaren advanced the Sable Project and discovered new Ni-Cu-PGE mineralization at the Katt Project, and Murray Halliday worked on the Spanky Project, extending the southern limits of the favourable ultramafic belt.

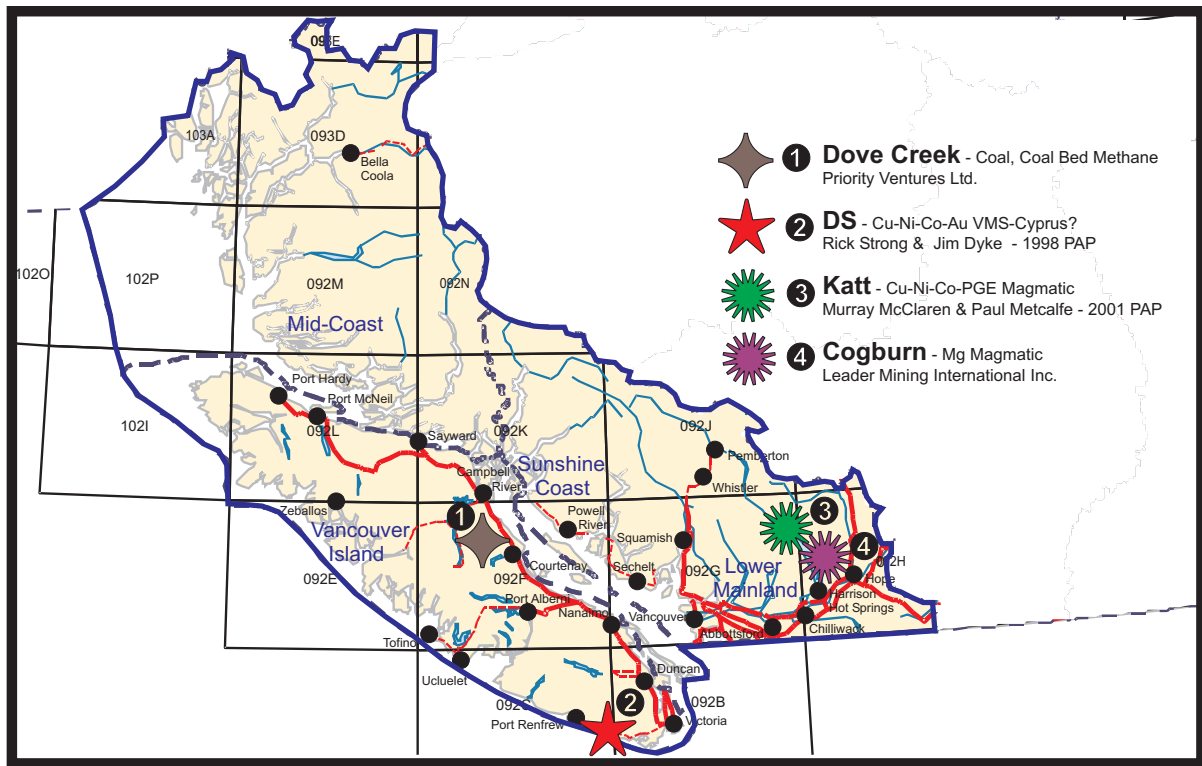


Figure 1. New discoveries in the Southwest region, 2001.

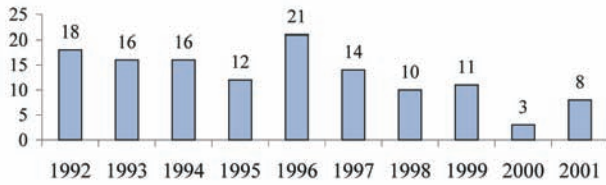


Figure 2. Number of major exploration projects annually Southwest region.

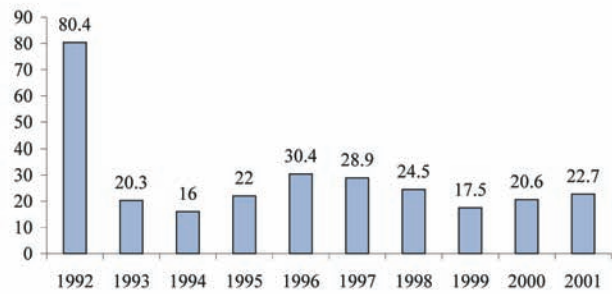


Figure 4. Annual exploration drilling (000's of metres), Southwest region.

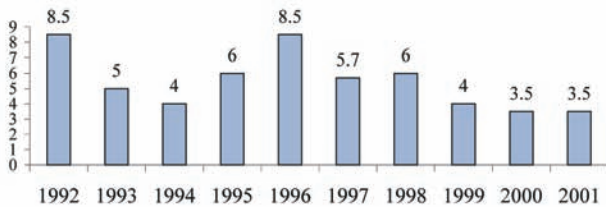


Figure 3. Annual exploration expenditures in C\$ millions, Southwest region

## EXPLORATION TRENDS

In 2001, there were eight major (>\$100,000) exploration projects undertaken in the Southwest Region as shown in Table 1. This is an increase of 167% over the previous year. These major projects targeted a variety of commodities and deposit models, and consisted of grass roots to bulk sampling projects. This contrasts with last year's dominance of massive sulphide oriented mine site exploration at Myra Falls, and industrial minerals projects in northern Vancouver Island. The resurgence of coal exploration and the initiation of coal bed methane projects on Vancouver Island account for almost one third of exploration expenditures in the region in 2001. Several mineral exploration projects also were funded through the new Super Flow-through Share program initiated by the British Columbia government in late 2000. The positive trend is exemplified by four new mineral discoveries in the Southwest Region in 2001 as shown in Figure 1, double the number found last year.

Estimated total exploration expenditures in the region are \$3.5 million, the same as in 2000. Estimated total exploration drilling in 2001 is 22,700 meters, representing an increase of 10% over 2000, and the second consecutive year of increased drilling in the Southwest Region. Figures 2, 3 and 4 show key exploration indicators for the region over the past ten years: annual major exploration projects, annual exploration projects, and annual exploration drilling. These indicators clearly show that exploration activity in

the Southwest Region reached a low point in 2000; assuming a normal five to seven year exploration cycle, better times are anticipated in the Southwest Region during the next few years.

## MINES AND QUARRIES

There were ten major mines and quarries (>100,000 tonnes annual production) operating in the Southwest Region in 2001, the same as the previous year. Refer to Figure 5 for names, locations, owners, and commodities produced by these mines and quarries. In addition, there are many large sand and gravel operations too numerous to mention, and several small dimension stone and industrial mineral producers. In general, production tonnages in the region remained about the same as in 2000, but the value of production by commodity changed significantly in 2001. Base metal values were much lower but coal values were much higher, reflecting the sharply opposing trends in commodity prices over the past year. Major mines and quarries, major exploration projects (Figure 6) and prospector assistance projects (Figure 7) demonstrate the diversity of mineral deposit types and potential, as well as the innovation of operators and explorationists working in the region.

### MYRA FALLS OPERATION

Boliden-Westmin (Canada) Ltd. and predecessors have mined a large, geologically complex, series of

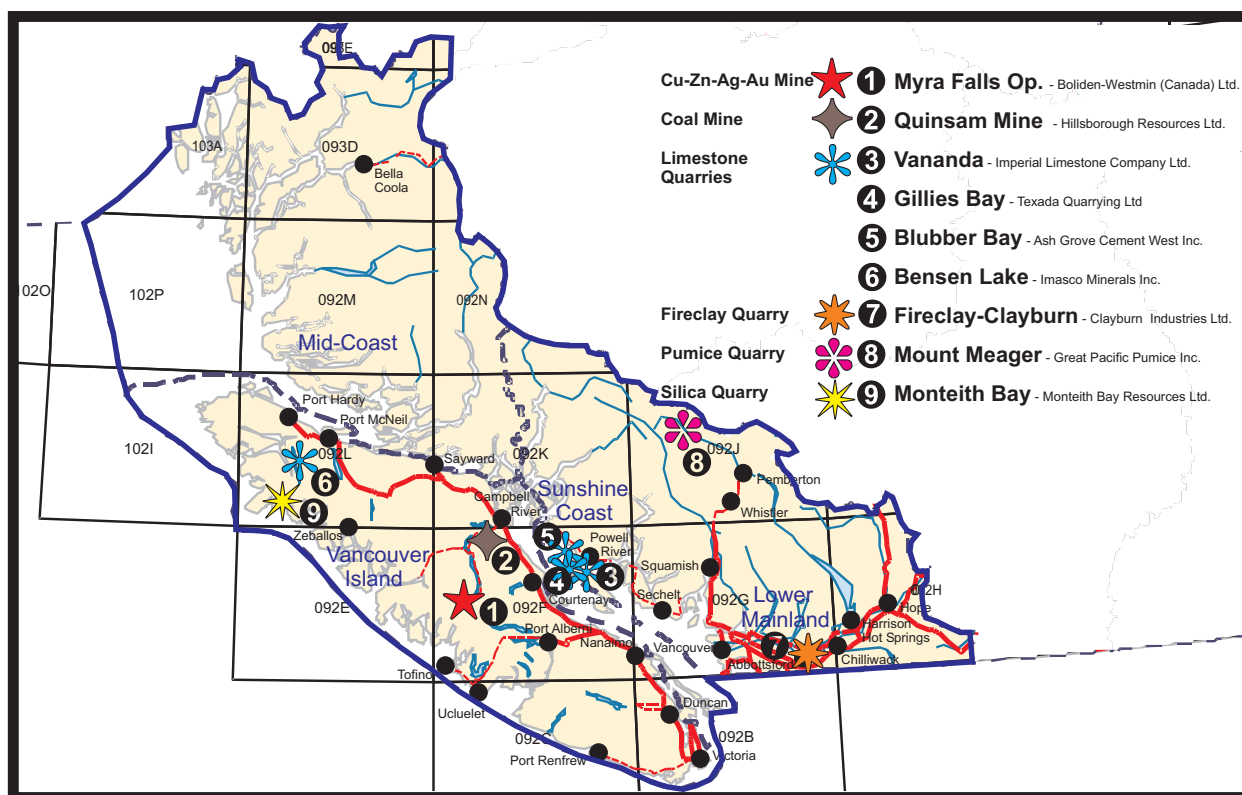


Figure 5. Major mines and quarries, 2001.

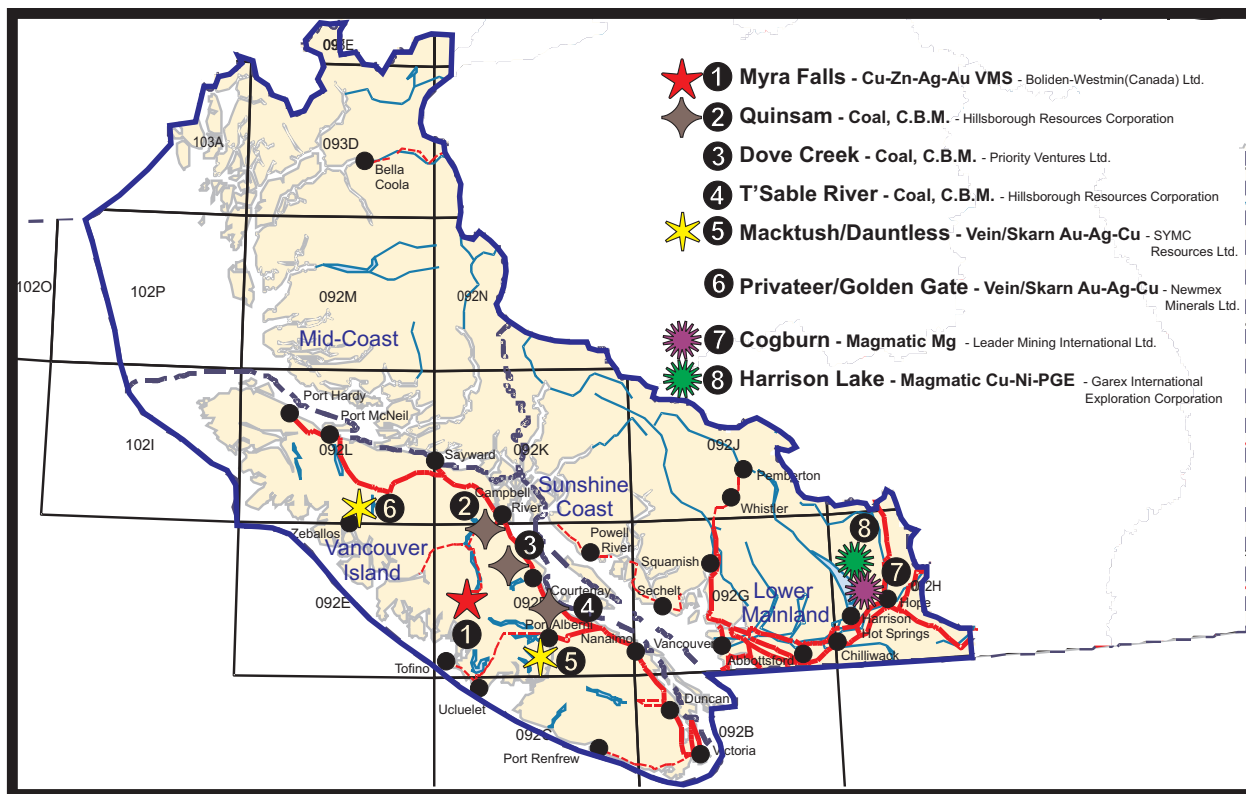


Figure 6. Major exploration projects, 2001.

TABLE 1  
MAJOR EXPLORATION PROJECTS, SOUTHWEST REGION - 2001

Property	Operator	MINFILE	NTS	Commodity	Deposit Type	Work Done
Myra Falls Operation	Boliden-Westmin (Canada) Inc.	092F071, 072, 073, 330	092F12E	Cu-Zn-Au-Ag	volcanogenic massive sulphide	68 ddh, 13,291 m. (all underground)
Quinsam Coal Mine	Hillsborough Resources Ltd.	092F319	092F11W	coal, coal bed methane	sedimentary	12 ddh, 2323 m.
Dove Creek	Priority Ventures Ltd.	2001 discovery	092F11E	coal, coal bed methane	sedimentary	3 ddh, 1270 m.
T'Sable River	Hillsborough Resources Ltd.	092F333	092F10W	coal, coal bed methane	sedimentary	5 ddh, 180 m.
Mactush, Dauntless	SYMC Resources Ltd.	092F012, 168	092F02W	Au, Ag, Cu, Mo	vein, skarn, porphyry	20 ddh, 750 m.
Privateer, Golden Gate	Newmex Minerals Inc.	092L008, 009, 010, 011, 012, 005, 038, 155	092L02W, 092E15W	Au, Ag, Cu	vein, skarn, replacement	drift, raise, decline, 60 m. total; grid, 24 km.
Cogburn	Leader Mining International Inc.	092HSW081	092H12E	Mg; Cu-Ni-Co-Au-Ag-Pt-Pd	magmatic	23 ddh, 1360 m.
Harrison Lake	Garex International Exploration Corp.	092NWH040, 45	092H12W	Cu-Ni-Co-Au-Ag-Pt-Pd	magmatic	geochemistry

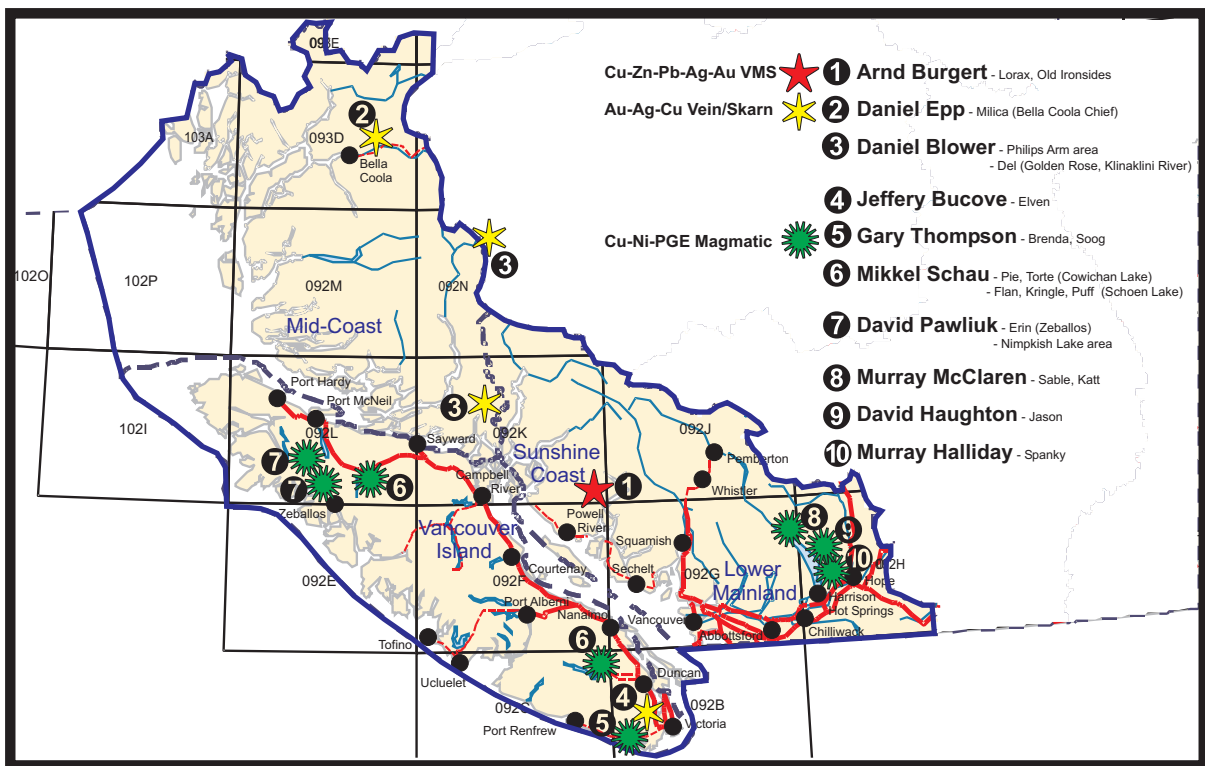


Figure 7. Prospector Assistance projects, 2001.

volcanogenic massive sulphide deposits in Paleozoic Sicker Group rocks at its Myra Falls Operation located in Strathcona Park near Campbell River. Since production began in 1966, over 21 million tonnes of Cu-Zn-Pb-Ag-Au ore have been milled. During the first eleven months of 2001, the mine employed 440 people and operated at a nominal milling rate of 3250 tonnes per day and an average cash cost of US\$0.45 per pound of zinc equivalent. Total production for the year was 1,090,000 tonnes @ 1.6% Cu, 6.3% Zn, 1.5g/t Au and 26g/t Ag. Myra Falls had a successful year, meeting all production targets, but drastic reductions in the prices of copper and particularly zinc to near all-time low levels for both commodities made the operation sub-economic.

On November 30, 2001 mining and milling operations at the mine were suspended for a minimum three-month period, to be resumed pending an increase in base metal prices. Other significant issues affecting Myra Falls are high power costs and low precious metal recoveries are. In October of 2001, Boliden announced that Myra Falls was officially for sale, and reduced the carrying value of the operation by US\$110 million to reflect its perceived market value. During suspension of operations, selected long term projects were continued, including: continuation of the production ramp from 18<sup>th</sup> to 22<sup>nd</sup> Levels, initial construction of the paste tailings system, and hoist and crusher maintenance. Unfortunately, exploration activity was discontinued.

As of January 1, 2001, Myra Falls had a mining reserve of 7.72 million tonnes at 1.3% Cu, 6.6% Zn, 0.4% Pb, 1.3

g/t Au and 36.4 g/t Ag. Geological resources as of January 1, 2001 are 5.85 million tonnes at 1.3% Cu, 7.0% Zn, 0.7% Pb, 1.8 g/t Au and 60.9 g/t Ag. Both mineral inventory categories are roughly the same for January 1, 2002, indicating that mine site exploration, definition drilling and data re-interpretation successfully upgraded resources to replace reserves mined in 2001 primarily from H-W, 43-Block, Battle-Gap and Lynx deposits. A significant aspect of this success was establishing new precious metal and lead rich resources, primarily at the Ridge Zone West deposit located west of Battle-Gap, and at the Price deposit, which is accessed from Thelwood Valley. Exploration diamond drilling at the Myra Falls Operation in 2001 totaled 13,291 meters in 68 holes, and cost \$1.23 million. In addition, definition diamond drilling at the mine totaled 37,628 meters in 403 holes.

The future of the Myra Falls Operation is uncertain. A combination of increased productivity, reduced costs and increased metal prices are needed to ensure long term economic viability. What is clear is that Boliden Ltd., the parent company of the current owner, does not perceive Myra Falls as a core asset. In order to make the operation attractive for purchase by new owners, demonstrable productivity increases are required, such as increasing high-grade mill feed from external sources, and by improving mill recovery for precious metals. Reduced costs could be achieved by connecting the operation to the provincial electrical power grid, thereby reducing dependence on costly diesel generators for supplementary power. These improvements, combined with a recovery of base metal prices

and continued exploration success would keep the Myra Falls Operation viable for decades.

### ***QUINSAM COAL MINE***

Hillsborough Resources Ltd. owns 100% of Quinsam Coal Corporation, which in turn owns and operates the underground Quinsam Coal Mine near Campbell River on Vancouver Island. During 2001, the mine, which continued operating on a single shift basis, produced 315,000 tonnes of clean bituminous grade thermal coal for markets in the Pacific Northwest. Revenues from the mining operations for Hillsborough at Quinsam increased by about 40% through the first 9 months of 2001 relative to 2000, due primarily to increased market prices for coal.

The coal at Quinsam is hosted in numerous, shallow, flat-lying seams within Cretaceous Nanaimo Group sedimentary rocks. The seams are accessed by ramps from surface. In 2001, mine-site exploration diamond drilling resumed at the Quinsam Coal Mine in the 7-South Area, where 2323 meters were completed in 12 holes. Almost all the holes intersected both the deeper No.1 and shallower No.3 seams. Hillsborough also raised exploration funding in 2001 by selling up to \$4 million in flow-through shares by private placement. The funds will be used to explore both at Quinsam and T'Sable River.

### ***LIMESTONE QUARRIES***

The islands east of Vancouver Island in the Southwest Region host extensive, flat-lying exposures of the Triassic Quatsino Formation, a prime source of limestone. On northern Texada Island, this unit is quarried by three operators, two of which are the largest suppliers of cement-grade limestone in the Pacific Northwest. In 2001 Lafarge Canada Inc. (through Texada Quarrying Ltd.) shipped 3.2 million tonnes from its Gillies Bay Quarry, and Ash Grove Cement Corporation shipped 1.8 million tonnes from its Blubber Bay Quarry, comparable to production in 2000.

Chemical-grade limestone was produced from Imperial Limestone Co. Ltd.'s Vananda Quarry (200,000 tonnes in 2001) and from a portion of Lafarge's production at Gillies Bay. Proximity of the Texada Island quarries to sheltered ports on Georgia Strait enables highly efficient and inexpensive barge transportation of their products, which helps these operations to maintain profitability during soft market conditions. On northern Vancouver Island, International Marble and Stone Company Ltd. (IMASCO) produced 28,000 tonnes of chemical grade limestone from its Benson Lake Quarry near Port Hardy.

### ***INDUSTRIAL MINERAL QUARRIES***

The wide variety of industrial minerals in the Southwest Region continually opens new opportunities for exploration and exploitation by innovative operators. Aggregate producers in the region are too numerous and poorly documented to report, but provide essential products for construction, particularly near major urban areas. Seven major (>10,000 tonne per year) non-aggregate quarries

continued operations in 2001. Two operations, which are located near Abbotsford, mine altered sediments of the Eocene Huntington Formation. Lafarge Canada Inc. (through Tilbury Cement Ltd.) produced 450,000 tonnes of shale and sandstone from its Sumas Shale Quarry. The product is trucked to and used at Tilbury's cement plant in Delta. Clayburn Industries Ltd. produced 63,500 tonnes of fireclay at its Fireclay-Clayburn Quarry. The product is used at its nearby plant, which produces refractory bricks, flue line pipe and facing bricks.

In less central parts of the region, during the summer season, quarrying operations extract and transport specialty resources. On northwest Vancouver Island during 2001, Monteith Bay Resources Ltd. (an affiliate of Tilbury Cement Ltd.) produced and barged 37,000 tonnes of hot spring silica from its Monteith Bay Quarry to its Delta cement plant. This operation mines a paleo-hot spring replacement silica, or chalky geyserite deposit in Jurassic Bonanza Group Volcanics, and is located along tidewater. On the mainland northwest of Pemberton, Great Pacific Pumice Ltd. produced and trucked 12,000 cubic meters of volcanic pumice from its Mount Meager Quarry to processing and sorting yards near Meager Creek Hot Springs and Squamish. The material is used for lightweight concrete, as stone washing media and for cosmetics. The operation exploits a stratified deposit of rhyodacitic breccia and ash of the Pliocene to Recent Garibaldi Group Volcanics.

### ***DIMENSION STONE QUARRIES***

Several small, seasonal dimension stone quarries operate in the Southwest Region, providing a wide variety of mainly granitic products for dimension stone processors in the lower mainland and on Vancouver Island. Stone processing plants are operated by Westcoast Manufacturing Inc. in Delta, Margranite Industry Ltd. in Surrey, Garibaldi Granite Group Inc. in Squamish and Matrix Marble Corporation in Duncan. These operations market both local products and others from all over the world.

As a result of soft market conditions in 2001, most dimension stone quarries in the region produced only from stockpiles, or not at all. One of the newer operators, Hardy Island Granite Quarries Ltd., produced 2700 tonnes of light grey granodiorite from its Hardy Island Quarry in Jervis Inlet near Powell River. In the Squamish area, Huckleberry Stone Supply Ltd. produced about 3500 tonnes of columnar basalt from a number of small quarries on its Spumoni, Cabin and Freeman claims. Nearby, Garibaldi Granite Group Inc. produced about 3000 tonnes of granitic and volcanic dimension stone products from its Squamish, Ashlu River and Leo quarries.

## **EXPLORATION ACTIVITY**

### ***VANCOUVER AND INSHORE ISLANDS***

#### **DOVE CREEK (NEW)**

Priority Ventures Ltd. initiated and completed a 1270-meter, three hole exploration-drilling program target-

ing both coal and coal bed methane in the Comox Formation of the Cretaceous Nanaimo Group at its Dove Creek Project west of Courtenay. The successful program was superbly designed and executed. Priority intersected multiple seams of possible coking coal and confirmed the presence of methane gas, both of which are considered new discoveries for 2001. Additional drilling planned by Priority Ventures in 2002 will delineate coal seams and test methane gas potential.

#### **T'SABLE RIVER (MINFILE 092F333)**

Hillsborough Resources Corporation, through its subsidiary T'Sable River Coal Corporation, commenced a major underground coal bulk-sampling program in 2001 at its T'Sable River Project south of Courtenay. An initial 180-meter, five hole groundwater monitoring drill program was completed to help guide the development of twin 650 meter declines from surface planned for 2002. These will test the lowermost No. 1 coal seam in the Comox Formation of the Cretaceous Nanaimo Group to a vertical depth of 150 meters. In-situ reserves in all categories at T'Sable River are 38.5 million tonnes of high volatile bituminous A rank coal.

#### **MACKTUSH AND DAUNTLESS (MINFILE 092F012 and 092F168)**

South of Port Alberni, along the west shore of Alberni Inlet, SYMC Resources Ltd. has been prospecting and exploring its Macktush Project for over a decade. The project has targeted multiple occurrences and styles of porphyry copper-molybdenum-gold-silver and related vein mineralization within and adjacent to northwest trending Jurassic Island Plutonic Suite granodiorite stocks and dikes that intrude Triassic Karmutson Formation basalt flows. In 2001, about 750 meters in twenty short diamond drill holes tested the Fred, David and Sy veins, which are steeply-dipping, east-west trending, sub-parallel gold bearing quartz-calcite-chalcopyrite-bornite-tetrahedrite veins hosted by altered granodiorite. These epi/mesothermal veins are interpreted to be peripheral to a large porphyry system or cluster of systems.

In 2001, prospecting at the Dauntless property located several steeply dipping, east-west trending, parallel massive chalcopyrite-quartz skarn veins hosted by altered basalt Dauntless is located ten kilometers north of Macktush and immediately above tidewater. Prospecting also identified a quartz-chalcopyrite stockwork zone hosted in altered granodiorite (the Bowl Zone) located in a small cirque two kilometers northwest of the Fred/David/Sy vein system at Macktush. Although not all are new discoveries in 2001, these occurrences clearly suggest the presence of both bulk mineable mineralization and narrow vein potential of significant gold, copper and silver mineralization at the Macktush and Dauntless Projects. In early 2002, bulk sampling and diamond drilling are planned for the target areas identified. Funding will be provided by the sale of Super Flow Through shares and through an arrangement with Sumitomo Corporation of Japan.

#### **PRIVATEER AND GOLDEN GATE (MINFILE 092L008 and 092L005)**

Newmex Minerals Inc. continued small-scale underground test mining of gold-sulphide-quartz veins at the past producing Privateer Mine, just north of Zeballos on the West Coast of Vancouver Island. During 2001, 60 meters of exploration drifting and raising were completed on the previously untested 1-2 Vein, locally this yielded spectacular visible gold specimens and sections of high-grade gold samples. Surface work was initiated near the past producing Golden Gate deposit, including 24 kilometers of grid and soil sampling. Planned ground geophysics and soil sample analyses were not completed. Sampling of gold-sulphide-quartz veins in old trenches at Golden Gate yielded high-grade gold samples similar to those at Privateer, which is 3.5 kilometers away. Newmex ceased funding the project in mid-year, and were seeking partners to assist with future exploration financing and direction. Nonetheless, the potential for both narrow vein and replacement types of high grade, low tonnage gold resources at Newmex's Zeballos Project remains very attractive, and worthy of long term exploration interest.

#### **OTHER EXPLORATION ACTIVITY**

During 2001, several junior mining companies and prospectors either began smaller exploration projects that yielded positive results, or started projects that could yield positive results and become major projects in the region. In 2001, about 80% of exploration projects and 90% of exploration expenditures in the Southwest Region occurred on Vancouver Island and the inshore islands. These statistics reflect the high potential for metallic, industrial mineral and hydrocarbon deposits in the well-preserved, polyphase island arc and back arc basin setting of the Insular Belt. A perpetual field season and a superb road network on the islands are useful to help explorationists penetrate the dense vegetation covering much of the island.

In southern Vancouver Island near Sooke, Beau Pre Explorations Ltd. utilized the Super Flow through Funding Program to continue prospecting and to start installing a dry gravity test mill at its Valentine Mountain (MINFILE 092B108) gold-quartz vein project. Near Jordan River, Jim Dyke and Rick Strong successfully discovered and exposed the massive sulphide bedrock source of high-grade chalcopyrite mineralization found along logging roads by Mr. Strong during his 1998 Prospectors Assistance Program. West of Cowichan Lake, C.R.C. Explorations Ltd. began an exploration drilling program in late 2001 to test copper-gold skarn potential at its Nit Nat (MINFILE 092C150) Project. In the same area, also in late 2001, Inspiration Mining Corporation commenced a multi-phase exploration program to test for possible polymetallic massive sulphide potential at its Jasper (MINFILE 092C080) Project.

On northern Vancouver Island south of Sayward, Homegold Resources Ltd. trenched and bulk sampled its Iron Ross (MINFILE 092K043) magnetite skarn prospect. Homegold also completed a small drilling program at its Smiley (MINFILE 092I286) project to test a limestone

body near Nimpkish Lake. Near Bonanza Lake, Omya California Inc. also tested limestone potential of its Bonanza (MINFILE 092I286) project area. Further north along Holberg Inlet, partners Tilbury Cement Ltd. and Homegold Resources Ltd. conducted small diamond drilling programs to test separate areas on its Apple Bay Property: the Hushamu (MINFILE 092L308) Project for shale and sandstone, and the PEM100 (MINFILE 092L150) Project for silica and kaolin.

On Texada Island, Northstar Mines continued bulk sampling on a number of gold-copper quartz vein projects, such as the Tak 2, which was discovered during 2000, and the Dude (MINFILE 092F276) a porphyry copper-molybdenum-gold project. Chemical Lime Company Ltd. also completed a bulk sampling and diamond-drilling project at its Farmhouse (MINFILE 092F363) project. Mining on Texada Island has a long history for copper and gold mining, a strong current economic base with limestone and aggregate, superb transportation logistics with deep-sea ports, plus excellent future exploration potential for both metals and industrial minerals.

## **PROSPECTOR ASSISTANCE PROGRAM**

In 2001, four of the ten Prospectors Assistance Programs allocated to the Southwest Region were undertaken on Vancouver Island. Near Shawnigan Lake, Jeffery Bucove prospected for the gold-quartz vein bedrock source of the historic Leech River Placer District at his Elven Project. The other three programs targeted tholeiitic intrusion-hosted Cu-Ni-PGE mineralization related to the Triassic Karmutson Formation throughout the island. Gary Thompson worked in the Sooke area on his Bren and Soog claims. Mikkel Schau worked in two different areas: the Pie and Torte claims near Cowichan Lake, and the Flan, Kringle and Puff near Schoen Lake; Dr. Schau discovered new epithermal gold vein mineralization at Flan and new copper skarn mineralization at Kringle. David Pawliuk prospected both in the Zeballos area (Erin claims) and near Nimpkish Lake.

### ***HARRISON LAKE - HOPE AREA***

#### **COGBURN (NEW)**

In 2001, Leader Mining International Inc. acquired the core of the Cogburn Property from Gerald Carlson and John Chapman for its Cu-Ni-PGE potential associated with the NI prospect (MINFILE 092HSW081). Sampling by Leader on the prospect yielded low Cu-Ni-PGE values, but identified a nearby area measuring 10 kilometers by 2 kilometers of magnesium rich, serpentinized, peridotite and/or dunite averaging 25-30% Mg, which they have named the Emory Zone. Due to the proximity of infrastructure to such a potentially significant deposit, Leader commissioned Hatch Associates Ltd. to perform a scoping study of the feasibility of a magnesium metal mine and plant on the zone. Results were favourable. Leader also completed an initial diamond-drilling program of 1360 meters in 23 holes in late 2001 to define possible zones of higher Mg grades and

fewer impurities within the deposit. Additional development work is planned for the next two years, which if successful could lead to a new open pit Mg mine at Cogburn and a new Mg metal plant near the town of Hope by 2003.

#### **HARRISON LAKE (MINFILE 092HNW040, 045)**

Garex International Exploration began staking in the Harrison Lake - Hope area in 2000, and continued through 2001. By year-end the company held the largest land position in the area with 1229 mineral claim units representing over 300 square kilometers. Grass roots prospecting, geochemical sampling and mapping on its Harrison Lake Project consumed all the time and 2001 funding available to this private company. Garex targeted Cu-Ni-PGE mineralization associated with gabbroic rocks on the property, both around the AL (092HNW040), Settler Creek (092HNW045) and Swede (092HSW082) MINFILE showings, and over the extensive area of ultramafic rocks exposed. The Harrison Lake Project also lies between the Jason (092HSW076) and Sable (092HNW077) occurrences, recent Cu-Ni-PGE discoveries made under the Prospectors Assistance Program.

## **OTHER EXPLORATION ACTIVITY**

Also in the Harrison Lake - Hope area, Santoy Resources Ltd. commenced grass roots Cu-Ni-PGE exploration on its Emory Creek Project, which is the second largest land position in the area. Emory Creek surrounds Barrick-Homestake's past producing Giant Mascot Property, and includes three MINFILE Cu-Ni occurrences: the Victor Nickel (092HNW039) developed prospect, and the D.C. Nickel (092HNW021) and Citation (092NHW046) showings. To the west near Harrison Hot Springs, Eagle Plains Resources Ltd. staked and optioned properties, and conducted a multi-parameter airborne geophysical survey over its Harrison Gold Project. The program is testing the area of the Harrison Au-quartz vein (MINFILE 092HSW092), a developed prospect. The Harrison Gold property hosts several quartz diorite stocks of Tertiary age that contain zones of gold-bearing quartz-sulphide veins and stockworks that could be open pittable.

## **PROSPECTORS ASSISTANCE PROGRAM**

The Harrison Lake-Hope area was the site of three of the ten programs funded by Prospectors Assistance in the Southwest Region in 2001. These projects helped extend the length of the favourable ultramafic belt to the northwest and southeast. To the north of Harrison Lake, along Big Silver Creek, Murray McClaren and partner Paul Metcalfe continued prospecting the Sable Project (MINFILE 092HNW077) Cu-Ni-PGE occurrence that was discovered in 2000. They also staked and began prospecting the Katt Project, a new Cu-Ni-PGE discovery along Stokke Creek. David Haughton continued his third prospecting season on and successfully optioned his Jason Project (MINFILE



092HNW076) along Cogburn Creek to a new junior exploration company. Murray Halliday from Hope prospected and staked several claims, referred to as the Spanky claims, around the headwaters of American Creek to cover exposed ultramafic rocks containing sulphide minerals and magnetite. The presence of Geological Survey Branch PGE Project team members in the area was of great assistance and motivation to the prospectors and exploration companies working in the area in 2001.

## **COASTAL MAINLAND AREA**

### **EXPLORATION ACTIVITY**

The Coastal Mainland portion of the Southwest Region, which covers the Sunshine Coast and Mid-Coast Forest Districts, saw little exploration activity in 2001. Dimension Stone developers maintained some level of activity, including Arbutus Cove Stone who completed bulk sampling of granitic material from its Brian Project (MINFILE 092JW032) located along Jervis Inlet within the extensive Coast Plutonic complex.

### **PROSPECTORS ASSISTANCE PROGRAM**

The prospectors assistance program supported exploration activity by three individuals seeking metallic minerals in several remote areas of the coastal mainland region in 2001. North of Powell River, Arnd Burgert explored his Lorax and Old Ironsides claims, which cover mineralized portions of Cretaceous Gambier Group roof pendants within the Coast Plutonic Complex. Lorax (MINFILE 092K162) is a 1998/99 Prospectors Assistance Program discovery. It consists of Cu-Zn-Ag-Au volcanogenic massive sulphides in two parallel lenses; these were further delineated in 2001. Old Ironsides is a Au-quartz vein discov-

ery from a 1999 Prospectors Assistance Program. It also was prospected in 2001.

Dan Blower explored for economic sulphide mineralization of any type in two target areas of the coastal mainland, one of which led him out of the Southwest into the South Central Region. Near Bute Inlet, prospecting in 2001 followed up multi-element regional geochemical stream sediment anomalies produced by the Geological Survey Branch. Along the Klinaklini River area, prospecting in 2001 followed up both regional geochemical anomalies and MINFILE occurrences, and led to the staking of the Del claims, covering the Golden Rose (MINFILE 092N046) Au-Cu quartz vein showing in probable Jurassic Hazelton Group volcanics and sediments that are so important in the South Central Region.

In the Bella Coola area, Dan Epp explored for economic sulphide mineralization along steep valleys around his home in Hagensborg, staking the Bella Coola Chief (MINFILE 092D009) Au-Cu-Ag quartz vein showing as the Milica claim. The Bella Coola Chief showing is hosted in possible Jurassic Hazelton Group volcanics and sediments intruded by biotite granite and quartz feldspar porphyry dikes of the Coast Plutonic Complex. The presence of members of the joint GSB/GSC Bella Coola Project team in the area was of great assistance and motivation to Mr. Epp in 2001.

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