



# BRITISH COLUMBIA MINES & MINERAL EXPLORATION OVERVIEW 2007



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## Ministry of Energy, Mines and Petroleum Resources

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### INTRODUCTION

British Columbia's coal and mineral resources are strategically located to be a significant asset for the international mining industry, particularly as a supplier for North American and Asian markets. The province has well-defined potential for a wide variety of minerals and deposit types. The geoscience database is extensive and easily accessed and the provincial government is committed to aggressively improving that data and encouraging new developments. With attractive energy costs, a well developed, all-weather highway system, rail links and a number of deep-water ports, British Columbia has the infrastructure to cost-effectively get coal, minerals and resulting products to markets.

Mining is an important economic driver in British Columbia with production valued at approximately \$6 billion annually. There were 10 coal, 11 metal, 36 major industrial minerals quarries and mines, a number of placer mines, and more than 1100 aggregate pits in operation during 2007.

Four mines opened during the year. The **Brule** coal mine opened in the Peace River coalfields and the **Max** molybdenum mine near Trout Lake started up. The **Swamp Point** and **Orca** quarries, located south of Stewart and near Port McNeill respectively, began shipping aggregate. There are over 20 project submissions to government seeking mine development and environmental approvals.



Photo 1. Stopmaster entering the Max mine portal.

Mineral exploration investment in British Columbia soared to a record level of \$416 million dollars during 2007 (Figure 1), reflecting B.C.'s outstanding position as a leading international jurisdiction for mineral exploration activity and new mine developments. This is an increase of 57% from the 2006 level. B.C. is estimated to account for about 17% of Canadian mineral exploration investments during 2007, up from about 7% in 2000. Exploration drilling, a strong indicator of activity and success, reached about 1.254 million m during the year, up over 50% from the 830 000 m drilled in 2006. Tenure acquisitions during 2007 at 5.83 million hectares were roughly equivalent to 2006 levels.

Sixty percent of Canadian exploration and mining companies are based in British Columbia, which has the world's largest concentration of exploration companies and mining professionals. In 2007, B.C.-based companies raised \$6 billion in equity capital for mining or about 37% of the total equity capital raised for Canadian listed exploration companies. This economic activity was carried out by 735 publicly-listed B.C. companies which account for 54% of the national total.

The world is in the midst of a mining boom driven by high demand for many coal and mineral commodities resulting in high commodity prices. The demand for commodities is primarily driven by Asian countries with rapidly growing or strong economies, such as China, India, Japan and Korea. These countries are natural trading partners for British Columbia given the province's easy access to the Pacific Ocean and shorter shipping

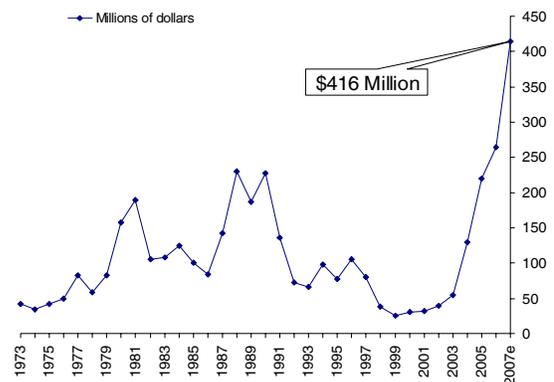


Figure 1. Mineral exploration expenditures, 1973-2007.

distances to Asia than many of its competitors. British Columbia has fared well during the mining boom because of its rich natural resources, well developed infrastructure, supportive government and secure tenure.

The *Mining Exploration Tax Credit Program* and *Exploration Investment Tax Credit* for flow-through investors, provide additional incentives to attract risk capital to the province. The B.C. and federal, non-refundable tax credits, when added to the regular 100% deductions, are equivalent to a 141% exploration expense deduction for income tax purposes. The *Mining Exploration Tax Credit* has been increased to 30% for qualified mineral exploration undertaken in prescribed Mountain Pine Beetle affected areas of the Province.

People employed in British Columbia’s mineral industry (mine and mill workers, engineers and geoscientists, managers and technical experts in many fields) are highly skilled and productive and are in demand throughout the world. Vancouver has become a major financial centre strongly oriented toward international trade in natural resources. Vancouver is also an important source of capital for mineral exploration and mine development, both within the province and internationally. British Columbia has become internationally recognized as a centre of excellence in mining and related fields such as metallurgy, environmental engineering, mine safety and the geosciences.

Throughout this report, the descriptions of mines, mine development projects and exploration properties are presented by region and within the region in sequence generally from north to south. As there were more than 470 exploration projects completed in 2007, this overview article is only able to describe the larger exploration projects. Readers are encouraged to read the regional overviews published in *Exploration and Mining in British Columbia 2007* for more detailed information.

## MINING HIGHLIGHTS

British Columbia ranks third in Canada for the value of its mineral and coal production with a forecast value of solid mineral production of \$5.9 billion (Figure 2). There were 10 coal, 11 metal, 36 major industrial minerals quarries and mines, a number of placer mines, and more than 1100 aggregate pits in operation during 2007 (Figure 3). Coal is the single most important commodity by value and copper is second (Figure 4). Other important commodities produced are molybdenum, industrial minerals, gold, construction aggregates, silver and zinc. Coking coal and pulverized injection coal (PCI) production increased in the northeast from 1.6 million tonnes in 2006 to more than 3 million tonnes in 2007 and stayed constant in the southeast at approximately 21 million tonnes. Forecast mine production and resources for 2007 are listed in Table 1.

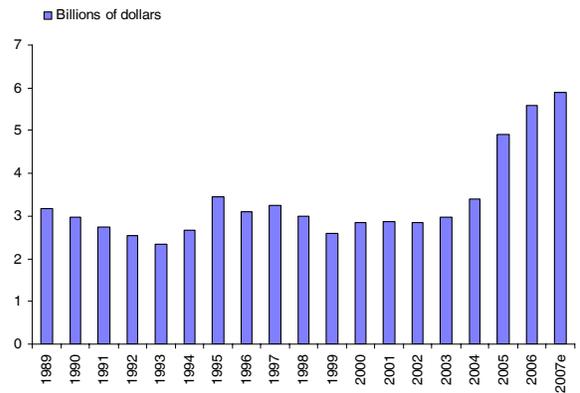


Figure 2. Solid mineral production value in British Columbia, 1989-2007.

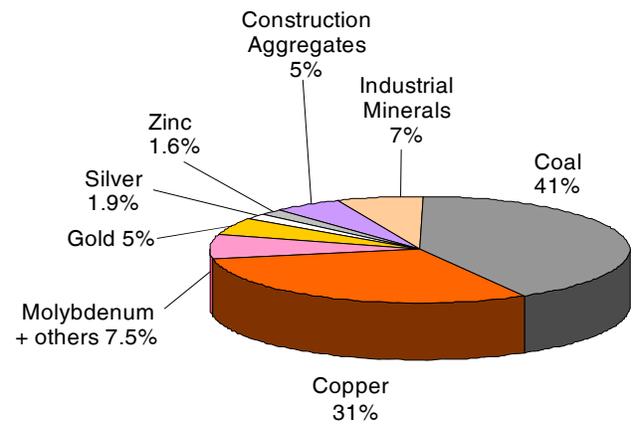


Figure 4. Forecast distribution of British Columbia mineral production by commodity – 2007.



Photo 2. Test heap leaching area, Mount Polley mine.

Clean coal production for 2006 is expected to total 24 to 25 million tonnes, with a forecast value of approximately \$2.5 billion. British Columbia has three

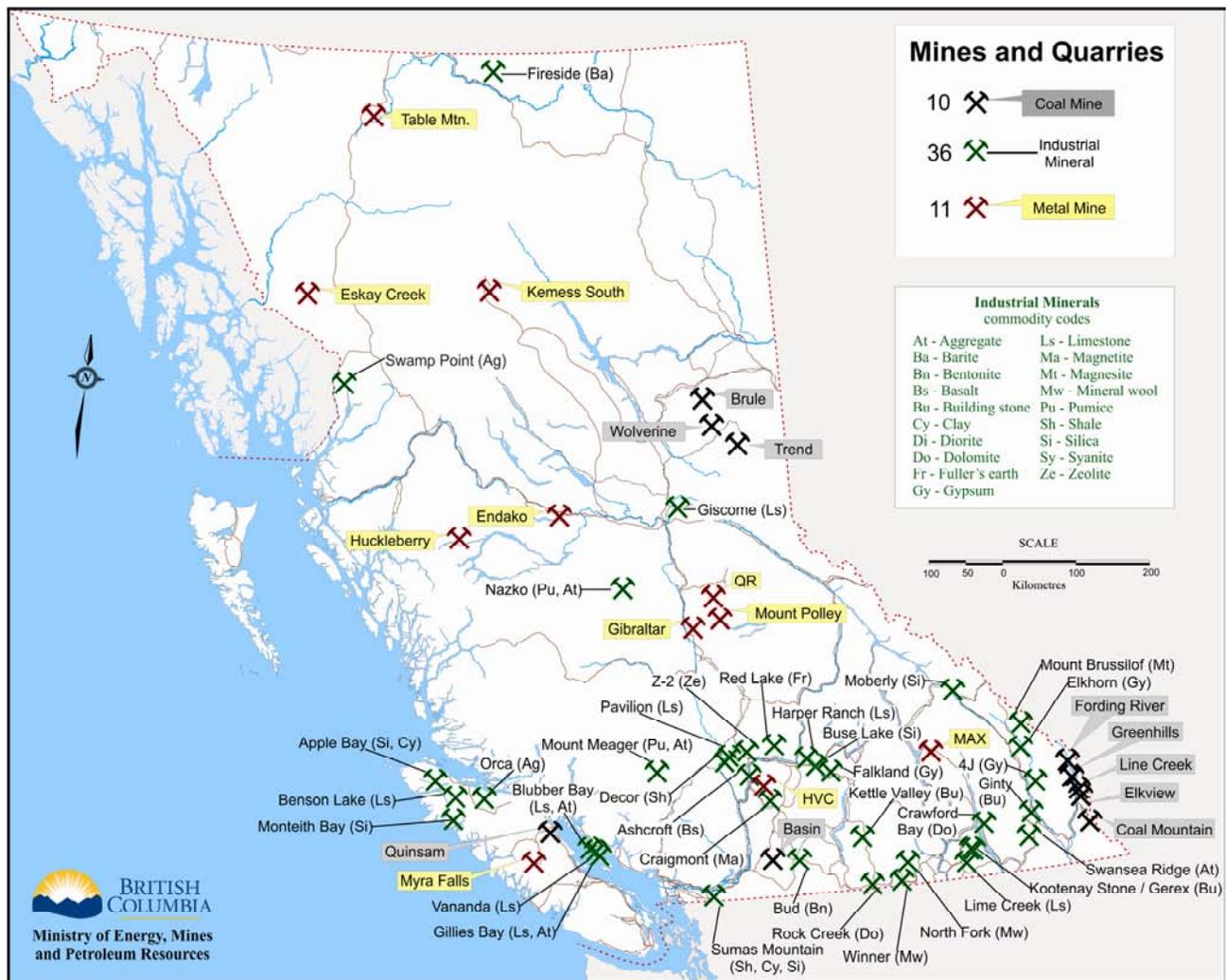


Figure 3. Mines and quarries 2007.

major coal ports on the west coast - **Roberts Bank**, south of Vancouver, has a capacity of 26 million tonnes per year; **Neptune** terminals (Vancouver Port) has a capacity of 8 million tonnes per year and **Ridley Island** terminal, near Prince Rupert, has a capacity of 12 million tonnes per year. There was significant unused capacity during 2006 for these coal ports. There is a fourth, deep water, and ice-free port at Stewart.

British Columbia's industrial minerals production for 2006 (including sulphur) is estimated to be worth approximately \$400 million. The most economically significant industrial minerals in British Columbia are magnesite, white calcium carbonate, limestone, silica, dimension stone, gypsum, sulphur, construction aggregate, and crushed rock. Commodities produced in lesser quantities include jade (nephrite), magnetite, dolomite, barite, volcanic cinder, flagstone, industrial and medical/cosmetic clays, tufa, fuller's earth, bentonite, slag, mineral wool, roofing granules, graphite, and gemstones. There are at least 20 major sites throughout the province where upgrading of

industrial minerals into value-added products takes place.

Structural materials production, including the important construction aggregate sector, is estimated to have a value of \$300 million. There are aggregate operations throughout the province and they vary from large pits, which supply the major metropolitan areas to many smaller pits used locally for road construction.

Placer gold production and exploration in British Columbia was concentrated in the Atlin, Dease Lake, Manson Creek, Cariboo and Fort Steele areas, but the majority of the operations are small and seasonal in nature.

### **Northwest British Columbia - Major Mines**

The **Eskay Creek** mine, located north of Stewart, is scheduled to close in early 2008. The mine, owned by Barrick Gold Corporation, produced 3324 kg (106 880 oz) of gold and 216 235 kg of silver in 2006. The total

**TABLE 1. FORECAST MINE PRODUCTION 2007**

Mine	Operator	Deposit Type / Commodity	Forecast Production in 2007 (tonnes or kilograms)	Proven and Probable Reserves (on Jan. 1, 2007)
<b>Metals</b>				
Endako	Blue Pearl Mining Ltd & Sojitz Moly Resources Inc	Calcalkalic porphyry Mo	4000 t molybdenum	112 000 000 t at 0.053% Mo (proven), 164 000 000 t at 0.049% (probable, April 30 2007)
Eskay Creek	Barrick Gold Corp	Transitional Epithermal-VMS Au-Ag	2150 kg Au, 155 000 kg Ag	123 000 t at 25.9 g/t Au, 1329 g/t Ag
Gibraltar	Taseko Mines Ltd	Calcalkalic porphyry Cu-Mo	23 500 t Cu, 263.1 t Mo (Sept year end)	384 000 000 t at 0.31% Cu, 0.009% Mo (proven, Sept 30 2007)
Highland Valley Copper	Teck Cominco Ltd / Highmont Mining Company Ltd	Calcalkalic porphyry Cu-Mo	142 000 t Cu, 1700 t Mo, minor Au and Ag	271 000 000 t at 0.43% Cu, 0.009% Mo (proven)
Huckleberry	Huckleberry Mines Ltd / Imperial Metals Corp	Calcalkalic porphyry Cu-Mo	30 000 t Cu, 140 t Mo	21 900 000 t at 0.40% Cu, 0.007% Mo (probable)
Kemess South	Kemess Mines Ltd (Northgate Minerals Corp)	Calcalkalic porphyry Au-Cu	7825 kg Au, 31 200 t Cu	67 210 000 t at 0.53 g/t Au and 0.19% Cu (proven, May 2007)
Max	Roca Mines Inc	Calcalkalic porphyry Mo	Starting production	Measured and indicated resource of 42 940 000 t averaging 0.20% MoS <sub>2</sub> at 0.10% cut-off
Mount Polley	Imperial Metals Corp	Alkalic porphyry Cu-Au-Ag	25 000 t Cu, 1560 kg Au, 12 600 kg Ag	59 900 000 t at 0.36% Cu, 0.27 g/t Au, 0.73 g/t Ag
Myra Falls	NVI Mining Ltd (Breakwater Resources Ltd)	VMS, Zn-Cu-Au-Ag	36 500 t Zn, 8200 t Cu, 970 kg Au, 34 000 kg Ag	6 100 000 t at 5.7% Zn, 1.0% Cu, 1.2 g/t Au, 41 g/t Ag
QR	Cross Lake Minerals Ltd	Skarn, Au	Starting production	356 000 t at 5.7 g/t Au (September 2007)
Table Mountain	Cusac Gold Mines Ltd	Mesothermal vein Au	19.7 kg Au	25 000 t at 17 g/t
<b>Coal</b>				
Brule	Western Canadian Coal Corp	PCI coal	750 000 t	22 300 000 t (March 2007)
Coal Mountain	Elk Valley Coal Corporation	Metallurgical coal	2 160 000 t	26 000 000 t
Elkview	Elk Valley Coal Corporation	Metallurgical coal	5 080 000 t	239 000 000 t
Fording River	Elk Valley Coal Corporation	Metallurgical coal	7 900 000 t	227 000 000 t
Greenhills	Elk Valley Coal Corporation	Metallurgical coal	4 150 000 t	96 000 000 t
Line Creek	Elk Valley Coal Corporation	Metallurgical and thermal coal	2 300 000 t	17 000 000 t
Perry Creek (Wolverine)	Western Canadian Coal Corp	Coking Coal	2 200 000 t	34 300 000 t (March 2007)
Quinsam	Quinsam Coal Corp (Hillsborough Resources Ltd)	Thermal & PCI coal	472 000 t	24 100 000 t
Trend	NEMI Northern Energy & Mining Inc	Coking Coal	1 000 000 t	21 610 000 t (June 2007)

TABLE 1. CONTINUED

Mine	Operator	Deposit Type / Commodity	Mine	Operator	Deposit Type / Commodity
<b>Industrial Minerals</b>					
4J	Georgia-Pacific Canada Inc	Gypsum	Kettle Valley quarries	Kettle Valley Stone Company	Ashlar, flagstone, thin veneer
Apple Bay	Electra Gold Ltd	Geyserite	Lime Creek	Imasco Minerals Inc	Limestone
Ashcroft	IG Machine and Fiber Ltd (IKO Industries Ltd)	Basalt roofing granules	Moberly	HCA Mountain Minerals (Moberly) Ltd	Silica sandstone
Benson Lake	Imasco Minerals Inc	Limestone	Monteith Bay	Lehigh Northwest Cement Ltd	Geyserite
Blubber Bay	Ash Grove Cement Corp	Limestone aggregate, dolomitic list	Mount Brussilof	Baymag Inc	Magnesite
Bud	Absorbent Products Ltd.	Bentonite	Mount Meager	Great Pacific Pumice Inc	Pumice
Buse Lake	Lafarge Canada Inc	Volcanic ash (alumina-silica)	Nazko	Lightweight Advanced Volcanic Aggregates	Lava rock
Craigmont	Craigmont Mines Joint Venture	Magnetite tailings	North Fork	Roxul (West) Inc	Syenite (mineral wool)
Crawford Bay	Imasco Minerals Inc	Dolomite	Pavilion	Graymont Western Canada Inc	Limestone
Decor	Pacific Bentonite Ltd	Burnt shale (alumina and landscape rock)	Red Lake	Absorbent Products Ltd	Diatomaceous earth, leonardite
Elkhorn	Certain Teed Gypsum Canada Inc	Gypsum	Rock Creek	Mighty White Dolomite Ltd	Dolomite
Falkland	Lafarge Canada Inc	Gypsum	Sumas Mountain	Clayburn Industries Ltd and cement manufacturer partners	Clay, shale and sandstone
Fireside	Fireside Minerals Inc	Barite	Swansea Ridge	Canadian Pacific Railway	Diorite (mineral wool)
Gillies Bay	Texada Quarrying Ltd (Lafarge Canada Inc)	Limestone, aggregate	Vananda	Imperial Limestone Company Ltd	Limestone
Giscome	Pacific Lime Products Ltd	Basalt (railroad ballast)	Winner	Roxul (West) Inc	Diorite (mineral wool)
Harper Ranch	Lafarge Canada Inc	Limestone	Z-2	Industrial Minerals Processors	Zeolite
K2	K2 Stone Inc	Flagstone, wall stone, thin veneer	Zeotech Bromley Ck	Heemskirk Canada Ltd	Zeolite

amount mined was 141 777 tonnes of which 18 128 tonnes was direct-to-smelter ore. The reserve grade at the beginning of 2007 was 25.9 g/t Au and 1329 g/t Ag. Only milling ore was produced in 2007; the supply of direct-to-smelter ore was exhausted in 2006. Since start-up in 1995, Eskay Creek has produced more than 100 tonnes of gold and 5000 tonnes of silver. It is one of the world's largest silver producers and among the richest in terms of value per tonne of ore.

The **Endako** open-pit molybdenum mine has been a low-cost producer for 42 years. It is operated by Thompson Creek Metals Company, which owns a 75% interest, and Sojitz Corporation, which holds a 25% interest. Molybdenum production for 2006 was 5160 tonnes from 9 526 000 tonnes of ore with an average grade of 0.069% Mo. The mill normally processes 28 000 tonnes per day and recovers about 78% of the molybdenum sulphide, all of which is converted to molybdc oxide in an on-site roaster. Thompson Creek Metals Company reported that at a 0.03% cut-off, the measured and indicated resource totals 331.2 million tonnes grading 0.051% Mo with proven and probable

reserves totalling 276 million tonnes at the same grade. The Company is considering building a new 50 000 tonnes per day mill with an estimated capital cost of C\$373 million. Instability on the south wall of the Endako pit resulted in a large slide on November 12, 2007. Mining was temporarily relocated to Denak West, supplemented by recovery of ore from a low-grade stockpile.

The **Huckleberry** copper mine is operated by Huckleberry Mines Ltd and is 50% owned by Imperial Metals Corp and 32% owned by Mitsubishi Material Corp. The remaining 18% is shared equally among Dowa Mining Ltd, Furakawa Company Ltd and Marubeni Corp. The mine is located 123 km, by road, south of Houston. Copper production for 2007 is forecast at 30 000 tonnes, slightly less than 2006. In 2006, the mill processed 6 646 200 tonnes of ore grading 0.556% Cu and 0.015% Mo. Mining in the East pit ended on June 22, 2007 when overburden and rock on the north wall slid to the bottom of the pit. Due to the size of the slide, the company chose to abandon the remaining East pit ore. The mill was supplied from a

low-grade stockpile and the company accelerated its plan to produce ore from the Main zone extension pit. At the start of production, reserves in this new pit were 17.4 million tonnes at 0.366% Cu, above a cut-off grade of 0.22%, sufficient to maintain the mine to 2010.

Cusac Gold Mines Ltd reopened the **Table Mountain** gold mine in 2007, which had been closed since 1997. The initial focus was on the Rory vein with minor production, but then shifted to the Bain vein where a probable reserve of 25 000 tonnes grading 17 g/t Au has been identified. The company completed considerable underground work, including advanced a decline to 150 metres from the East Bain vein when it intersected high water flow that halted mining on October 1, 2007.

In 2007, at the **Fireside** barite quarry, located 125 km east of Watson Lake, Fireside Minerals Ltd shipped 4000 tonnes of barite from a stockpile.

Three jade properties were active in the Dease Lake and Cassiar areas: **Cassiar**, **Polar Jade**, and **Provencher Lake**. Cassiar Jade Contracting Ltd is the principal operator. The company produced more than 60 tonnes of high-quality nephrite jade.

The **Swamp Point** aggregate quarry on the Portland Canal, which began development in late 2006, commenced barge shipments to Prince Rupert for construction of a new container port facility.

A private company, 24/7 Timber Limited, produced crushed granite rock from a quarry at Tyee, 25 km east of Prince Rupert on the Skeena River.

### ***Northeast British Columbia - Major Mines***

Late in 2006, Northern Energy and Mining Incorporated (20%), Hillsborough Resources Limited (14%) and Anglo Coal Canada Limited (66%) jointly created a new entity, the Peace River Coal Limited Partnership. The partnership manages most of the northeast British Columbia coal assets formerly assigned to the companies separately. Shipping is primarily through Ridley Terminals in Prince Rupert to markets in Asia, Europe and South America.

Peace River Coal's **Trend** mine, commissioned in January 2006, is located about 25 km south of Tumbler Ridge. Production in 2007 is targeted at 1 million tonnes/year of clean medium-volatile bituminous coal, with a permitted annual production of 2 million tonnes/year. This output is expected to be reached in 2008. Total reserves stand at 370 million tonnes. Peace River Coal's loadout facility, a few kilometres north of the Trend Mine, was completed in 2007.

Western Canadian Coal's **Perry Creek** mine, located about 25 km to the northwest of Tumbler Ridge, began operations in July 2006. Current production is about 2.2 million tonnes/year of metallurgical coal. Output is projected to increase to 3 million tonnes/year – the



Photo 3. Drilling and mining operations at Peace River Coal's Trend mine, Gates Pit.

capacity of the preparation plant. Current total reserves stand at 27.7 million tonnes with a mine life of about 10 years. During 2007 Western Canadian Coal completed 46 drillholes and 14 rotary boreholes totalling 4212 m around the mine.

Western Canadian Coal's **Brule** mine is located about 45 km south-southwest of Chetwynd and adjacent to the former Dillon mine, which closed in September 2006. Brule began shipping in March 2007 at a rate of 1 million tonnes/year and the plan is for an increase to 2 million tonnes/year of mostly pulverized coal injection (PCI) coal. Reserves stand at about 22 million tonnes; in 2007 on-lease exploration drilling of about 2400 m was completed to extend this. At present, coal is trucked to the Bullmoose loadout facility, but plans are to build a road northward to the Willow Creek mine to make use of that facility's wash plant and shipping infrastructure.

### ***North-Central British Columbia - Major Mines***

Northgate Minerals Corp continued operations on its copper-gold **Kemess** mine, located in the Toodoggone area about 300 km northwest of Mackenzie. This is currently one of the largest gold producers annually in Canada. As of May 2007, total reserves stood at 67.3 million tonnes and projected 2007 production is 7200 kg gold and 29 400 million kg copper. About 50 million tonnes per year are mined to feed a 52 000 tonne/day mill and the projected mine life is to the 4<sup>th</sup> quarter, 2010. In 2007, mine exploration activity was on the nearby Kemess East area. See section on Mine Developments for a discussion of **Kemess North**.

A gold pour in late November 2007 at Cross Lake Minerals Ltd's **QR** mine marked the restart of production from the operation. Located about 58 km southeast of Quesnel, the open pit and underground mine had been operated by Kinross Gold Corp up until 1998. Initial production is from the new Northwest pit and is to be followed by the West pit. The intent is to mine from underground on the West and Midwest zones beginning in



Photo 4. Crusher and mill at Cross Lake Minerals Ltd's QR mine.



Photo 5. Ore truck hauling copper-molybdenum ore at Gibraltar mine near McLeese Lake.

about April 2008. Startup reserves of about 356 000 tonnes at 5.7 g/t Au allow for a mine life of about two years, but the company is optimistic that this can be extended.

Imperial Metals Corporation's **Mount Polley** copper-gold mine, located about 56 km northeast of Williams Lake, increased production in 2007 by about 20 per cent over 2006, with an expected output of 25 million kg of copper, 1560 kg of gold, and 12 600 kg of silver. Total proven and probable reserves as of January 1, 2007 were 59.9 million tonnes grading 0.36% Cu, 0.27 g/t Au and 0.73 g/t Ag with a mine life to May, 2015. About 32 000 m of on-lease diamond drilling was completed in 2007. A 200 000 tonne test heap was operated in 2007 to prove the feasibility of leaching metal from the copper oxide cap that covers the Springer pit sulphide mineralization.

The **Gibraltar** mine, owned and operated by Taseko Mines Ltd, is located about 19 km east of McLeese Lake. In September 2007, Taseko announced an ore reserve increase to 348 million tonnes grading 0.310% Cu and 0.009% Mo, which could provide mill feed for the next 16 years. The Solvent Extraction and Electrowinning plant at Gibraltar was refurbished by the end of 2006, and by mid-2007 about 590 000 kg of copper cathode had been produced. The facility has the capability of producing over 3 million kg of copper cathode annually from oxidized stockpiles on the property. The first phase of mill expansion was to be completed by the end of 2007, which will enable throughput to reach 46 000 tonnes/day. Taseko Mines Ltd conducted extensive on-lease exploration, completing some 148 boreholes totalling 43 677 m and further defining the mineralized zones.

Chemical Lime Company of Canada Inc operates a small limestone **quarry** about 5 km southeast of Giscome. In 2007, shipments were from stockpiled material. Within the community of Giscome itself, Canadian National Railway Company continued production from its **Giscome** volcanic rock quarry to supply road ballast requirements for maintenance of its

main line and spur line. **Hunterstone Quarries**, near Valemont, continued low-level production of talus-derived quartzite dimension stone for specialty construction.

During 2007, Lightweight Advanced Volcanic Aggregates Inc reinitiated small-scale production of lightweight aggregate and scoria from its **Nazko** quarry about 100 km west of Quesnel. Up to 50 000 tonnes/yr have been removed to be used as fill for construction, concrete blocks, barbecue rock and landscaping.

### ***South-Central British Columbia - Major Mines***

The **Highland Valley Copper** open-pit mine near Kamloops, operated by Teck Cominco Limited (97.5%) and Highmont Mining Company (2.5%), is Canada's largest base metal mine. It is one of the largest open pit mining operations in the world, with a daily mill throughput averaging 112 000 tonnes. Production in 2007 is expected to be 142 000 tonnes of copper, 1700 tonnes of molybdenum and minor by-product gold and silver. In 2007, a decision was made to extend the mine life from 2013 to 2019, with the Valley pit expansion, crusher moves and equipment purchases. The proposed on-site hydrometallurgical copper smelter using CESL technology has been delayed indefinitely owing to the high capital cost of at least \$500 million. Exploration activity occurred throughout the year at the Highland Valley Copper mine, which is centered in the Guichon Creek batholith, where operator Teck Cominco Ltd drilled several targets aimed at supporting the expansion plans at the mine. Most of the work was around the Highmont pit, but the company also did some drilling near the Iona pit on the Bethlehem property.

Located near the town of Coalmont, the small **Basin** thermal coal mine of Compliance Energy Corporation was placed on seasonal care and maintenance status in September 2006 and did not operate in 2007. The high



Photo 6. Valley Pit at Highland Valley Copper mine near Kamloops.



Photo 7. Bentonite at the Bud quarry near Princeton.

volatile, bituminous B and C rank coal is sold mainly to cement plants in southern B.C. A stockpile of 4500 tonnes was sold to meet some contractual arrangements.

The Kamloops cement plant and **Harper Ranch** limestone quarry of Lafarge Canada Inc continue to supply cement to meet strong demand in western Canada. Lafarge also draws materials from the **Falkland** and **Buse Lake** quarries, which provide gypsum and alumina-silica rock, respectively.

The **Decor** pit near Cache Creek of Pacific Bentonite Ltd supplies alumina-rich burnt shale to the Lafarge cement plant in Kamloops. In the same area, Graymont Western Canada Inc operates the **Pavilion** limestone quarry and lime plant on the Pavilion Indian Reserve. Graymont has a forty-year lease with the Ts'kw'aylaxw First Nation who form the bulk of the employees at the mine.

East of Ashcroft, IG Machine and Fiber Ltd, a subsidiary of IKO Industries Ltd, operates the **Ashcroft** basalt quarry and roofing granule plant. Craigmont Mines Joint Venture operates the **Craigmont** magnetite operation located near Merritt where tailings from the old Craigmont copper mine are processed. The magnetite is used in coal washing plants.

At its plant in Kamloops, Absorbent Products Ltd manufactures cat litter, barn deodorizer, industrial absorbents, and carriers for agricultural products. These are prepared from diatomaceous earth mined from the **Red Lake** quarry northwest of Kamloops, and bentonite mined from the **Bud** quarry at Princeton.

At Princeton, the **Zeo-Tech/Bromley Creek** zeolite quarry is operated by Heemskirk Canada Ltd who transport the material to Lethbridge where it is prepared for use as lightweight cement for oil and gas wells.

Opal Resources Canada Inc produces attractive fire opal gemstones and jewelry from the **Klinker** property, located west of Vernon.

Decorative rock and dimension stone are produced at numerous small quarries throughout the region. The best known producer is the Kettle Valley Stone Company of Kelowna which sells flagstone, ashlar, facing stone and landscape rock mined from the **Nipple Mountain, Kettle Valley, Canyon** and **Gemini** quarries.

### *Southeast British Columbia - Major Mines*

The Kootenays' first metal mine since 2001, Roca Mines Inc's **MAX** molybdenum mine near Trout Lake, began shipping concentrate in November 2007. The MAX is an underground mine with a planned annual production rate of 72 000 tonnes. Its on-site concentrator has a 1000 tonnes-per-day capacity. The project has been in construction throughout 2006 and 2007 after receiving its Mines Act permit in late 2005. Major accomplishments in 2007 included completion of the mill and tailings facilities, and significant underground development. A second adit, which will lower operating costs and improve ventilation, is under construction. The MAX deposit contains measured and indicated resources of 42.9 million tonnes grading 0.20% MoS<sub>2</sub> using a 0.10% cut-off. The first phase of production will focus on a high-grade zone containing 280 000 tonnes (measured plus indicated) grading 1.95% MoS<sub>2</sub>.

Elk Valley Coal Corporation, the world's second-largest supplier of seaborne metallurgical coal, operates five large open pit coal mines in the Elk valley area. These operations provide the Corporation with the flexibility to blend coals from different mines to meet customer needs. Projected total 2007 coal production at the company's **Coal Mountain, Elkview, Line Creek, Greenhills** and **Fording River** operations is approximately 21.6 million tonnes of clean, predominantly metallurgical coal, up slightly from 2006. The Corporation, 62% owned by Fording Canadian Coal Trust and 38% by Teck Cominco Limited, is the world's second-largest supplier of seaborne metallurgical coal.



Photo 8. Elk Valley Coal Corporation's Line Creek coal mine.

Elk Valley Coal Corporation undertook major drilling programs on Wheeler Ridge (Coal Mountain Operations), Mt. Michael and Saddle (Line Creek Operations), and Castle Mountain and Bare Mountain (Fording River Operations).

Baymag Inc produces high-quality magnesite from its open pit mine near **Mount Brussilof**, northeast of Radium. Magnesite is transported by truck to Exshaw, Alberta, where the company has facilities for producing calcined and fused magnesia (MgO). Production in 2007 was projected to be approximately 100 000 tonnes.

There are two gypsum producers in the Kootenay region. CertainTeed Gypsum Canada operates the **Elkhorn** mine east of Windermere, and Georgia-Pacific Canada Inc operates the **Four J** mine southeast of Canal Flats. Production for 2007 is estimated at 525 000 tonnes for the Elkhorn mine and 250 000 tonnes for the Four J mine.

Silica is produced from quartzite by HCA Mountain Minerals (Moberly) Ltd from the **Moberly** mine and plant, north of Golden. Mine production in 2007 was predicted to be 100 000 tonnes.

Imasco Minerals Inc produces a variety of crushed and ground rock products at its Creston Operations Plant at Sirdar; rock types include limestone, dolomite, granite and quartzite. Raw sources for these products include an underground dolomite mine at **Crawford Bay**, a limestone quarry at **Lime Creek**, east of Salmo, and a granite quarry at **Sirdar**. Production of dolomite at Crawford Bay was expected to be 55 000 tonnes in 2007.

Mighty White Dolomite Ltd produces a range of crushed and ground dolomite products from its quarry and plant at **Rock Creek**.

The **Winner** gabbro quarry, west of Grand Forks, and the **North Fork** monzonite quarry, north of Grand Forks, both supply feed for the Roxul (West) Inc mineral wool manufacturing plant in Grand Forks. Production at the North Fork quarry is winding down; it will be replaced by a talus quarry at **Burrell Creek**. A bulk

sample from the Burrell Creek site, 10 km to the north, was collected for testing purposes this year.

### **Southwest British Columbia - Major Mines**

The **Myra Falls** underground mine, located west of Campbell River, has been in operation since 1966. The mine is operated by NVI Mining Ltd, a subsidiary of Breakwater Resources Ltd, with production from the Battle-Gap and the H-W zones. A final production figure for 2007 is estimated to be approximately 744 000 tonnes. As of December 31, 2006, proven and probable reserves stood at 6.134 million tonnes of 5.7% Zn, 1.0% Cu, 1.2 g/t Au and 41 g/t Ag. The company spent \$3.7 million on an exploration campaign aimed at extending the mine life beyond the current five to six years and to facilitate a development decision in the Marshall zone. As well, they invested over \$18 million in development expenditures during the first three quarters of the year.

Also located west of Campbell River, the **Quinsam** coal mine is an underground room and pillar operation that produces a high volatile, low sulphur thermal coal. Hillsborough Resources Limited's 2007 production forecast for the mine is 715 000 tonnes run-of-mine yielding 472 000 tonnes clean coal. A recent financing should allow plant improvement and upgrades aimed at improving recoveries. In situ proven and probable reserves as of December 31, 2006 were 24.093 million tonnes of thermal coal. Measured and indicated resources were estimated at 5.810 million tonnes. Quinsam Coal is considering development of an open pit operation on its 7 South block. They have submitted an application for a bulk-sample permit. Early in the year, drilling on the **Quinsam North** property was designed to further define resources and test geotechnical conditions. Quinsam North is being considered for its potential to both extend mine life and support a mine expansion.

Texada Quarrying Ltd expects to produce and ship approximately 6.7 million tonnes in total from its **Gillies Bay** quarry for 2007. Dikes are mined selectively and the igneous rock is used as aggregate of various sizes from ¼ inches minus to boulders. About 1.8 million tonnes were shipped as aggregate products. Recently the quarry has been supplying rock of various sizes to the Delta Port expansion at Roberts Bank. The quarry has a loadout facility capable of accommodating Panamax class freighters.

Ash Grove Cement Company's **Blubber Bay** quarry can produce several products including aggregates, cement grade limestone, chemical grade limestone, agricultural lime and dolomite. In 2007, they expect to produce approximately one million tonnes, mostly aggregate, principally to be shipped to the Lower Mainland market. Current loading facilities accommodate barges up to 17 500 tonnes, but the possibility of upgrading the facilities to accommodate freighters exists. Their dolomite product (>16.75% MgO) is used primarily

for agricultural purposes.

Imperial Limestone Company Ltd expects 2007 production at their Texada quarry near **Van Anda** to be very similar to last year's, about 255 000 tonnes. The majority (~95%) of their product is barged to parent company J.A. Jack and Sons Inc in Seattle where it is dried, crushed and screened. The product is a chemical grade limestone used primarily for agriculture, manufacturing of glass, plaster, roofing and other building materials.

Clayburn Industries Ltd expects production at **Sumas Mountain** be the same as previous years at roughly 500 000 tonnes. Shale supplied to cement manufacturers accounts for 85% of this total. True fireclay (refractory clay) is the other product and is used in the manufacture of refractory products.

Sumas Clay Products Ltd, owned and operated by the Sumas Mountain First Nation, manufactures and markets a colourful range of facebrick and paving products made from **Sumas Mountain** clay.

Electra Gold Ltd's **Apple Bay** or **Pem 100** operation appears on track to deliver over 120 000 tonnes of chalky geyserite to Ash Grove Cement in 2007. In addition, a bulk sample was shipped to Lafarge for testing purposes. Construction of an access road to another nearby deposit began in late 2007 and the company recently upgraded its barge loading facility.

Imasco Minerals Inc has been operating a limestone quarry at **Benson Lake** since 1985. In 2007, this quarry is expected to produce 40 000 tonnes of high brightness carbonate. About half of this carbonate finds industrial application as filler in paint and plastic products. It is also used in Imasco's line of stucco products.

An accident halted production at Great Pacific Pumice Inc's **Mount Meager** quarry mid-year. The operation is currently under care and maintenance. Garibaldi Aggregates Ltd also quarries pumice in the area and is currently preparing an application for a mining lease. Pumice finds applications as light weight fill and in specialty concrete, among other uses.

Construction Aggregates Ltd's **Sechelt** quarry is B.C.'s largest producer of sand and gravel in 2007 with a projected 5.7 million tonnes, up from last year. Producers Pit will produce 1.9 million tonnes in 2007, its final year.

**Cox Station** quarry, operated by Mainland Sand and Gravel Limited, produces a crushed quartz diorite aggregate on the north side of Sumas Mountain. In recent years, production has been close to two million tonnes per year, with an estimated 2.2 million in 2006. Material is shipped down the Fraser River on barges. Mainland also barges dredged river sand to construction sites.

Among the other large aggregate producers is **Earle Creek** quarry (Lafarge North America) which has produced well over one million tonnes annually in recent years. **Pipeline Road** operations of Jack Cewe Ltd and

Allard Contractors Ltd, together, will probably produce more than one million tonnes in 2007.

Polaris Minerals Corporation's **Orca** sand and gravel began stockpiling in late 2006 and made its first shipments in early 2007. Production is expected to be over 1.5 million tonnes in 2007. This emerging super quarry has large reserves of clean, high quality sand and gravel products and the ability to accommodate freighters at its loadout facility.

**Hardy Island** quarry produced 6000 tonnes this year which was sold by Bedrock Granite Sales Ltd. The company also markets **Haddington Island** andesite (actually a dacite), another stone found in local architecture dating back more than 100 years. K2 Stone Quarries Ltd produces an attractive green meta-siltstone with slaty partings. The **K2** quarry is located near Port Renfrew and the main yard at Duke Point near Nanaimo. Also on Vancouver Island, Matrix Marble and Stone quarries and produces finished products made of local marble.

Columns and slabs of Garibaldi basalt, andesite and dacite are quarried along the Whistler corridor for landscaping and masonry purposes. Operators include Huckleberry Stone Supply Ltd and Corridor Masonry Corp.



Photo 9. Stockpile at Polaris Minerals Corporation Orca quarry, northern Vancouver Island.

## MAJOR MINE DEVELOPMENT PROJECTS

Since 2004, more than 12 new mining projects have been permitted. As of December, 2007 there are 6 coal, 3 industrial mineral and 14 metal projects submitted to the government for consideration as mine developments (Figure 5, Table 2). All mine project proposals in British Columbia are required to have a *Mines Act* Permit and larger mines must also have an Environmental Assessment Certificate. Both these processes involve evaluation and approvals from multiple government

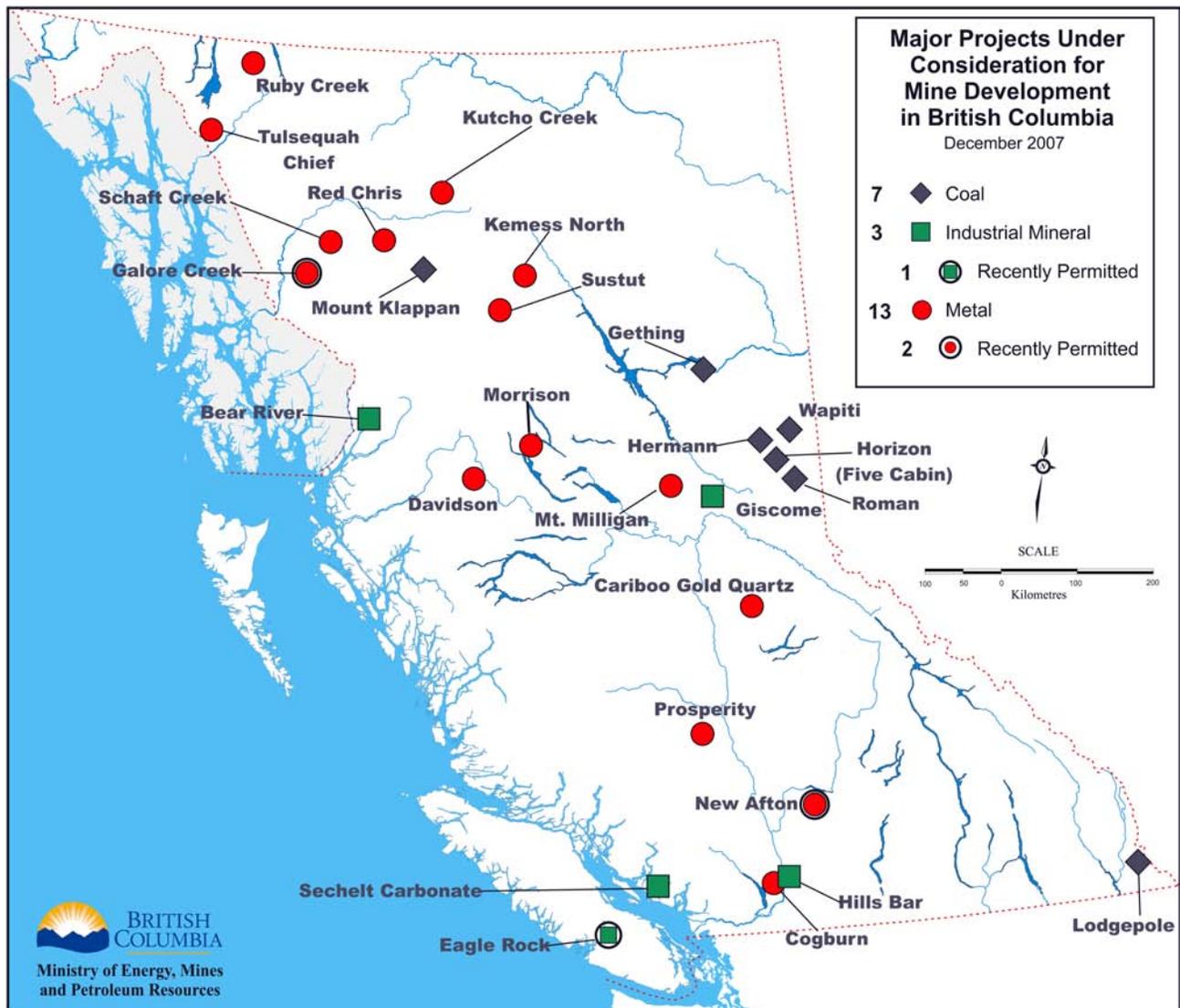


Figure 5. Major Projects Under Consideration for Mine Development.

agencies and consultation with communities and First Nations.

### ***Northwest British Columbia - Mine Development Projects***

Redfern Resources Ltd drilled 12 484 m and developed a new plan to access the **Tulsequah Chief** and **Big Bull** copper-lead-zinc-gold-silver deposits from the Taku River via Juneau, Alaska. They propose to use an air cushion barge that will be towed by an amphibious tug and operate year-round. The revised plan led to signing of a letter agreement with the Taku River Tlingit First Nation. The Tulsequah Chief deposit contains an indicated resource of 5 819 910 tonnes grading 1.43% Cu, 1.25% Pb, 6.58% Zn, 2.68 g/t Au and 97.2 g/t Ag.



Photo 10. Construction camp near Big Bull, also the barge unloading point on a side channel of the Taku River.

**TABLE 2. MAJOR PROJECTS UNDER CONSIDERATION FOR MINE DEVELOPMENT IN BRITISH COLUMBIA, 2007**

<b>Project Name</b>	<b>Owner/Operator</b>	<b>Commodities</b>
Bear River	Beacon Ventures Inc	Aggregate
Cariboo Gold Quartz	International Wayside Gold	Au
Cogburn	North Pacific Alloys Ltd	Mg
Davidson	Blue Pearl Mining Ltd	Mo
Eagle Rock	Polaris Minerals Corp	Crushed rock
Galore Creek	NovaGold Resources Inc	Cu-Au-Ag
Gething	Canadian Dehua Int'l Mines Group Inc	Coal
Giscome	Graymont Western Canada Inc	Lime
Hermann	Western Canadian Coal Corp	Coal
Hills Bar	Qualark Resources Inc	Aggregate
Horizon	Hillsborough Resources Ltd	Coal
Kemess North	Northgate Minerals Corp	Au-Cu
Kutcho Creek	Western Keltic Mines Inc	Cu-Zn-Au-Ag
Lodgepole	Cline Mining Corp	Coal
Morrison/Hearne Hill	Pacific Booker Minerals Inc	Cu-Au
Mount Klappan	Fortune Minerals Ltd	Coal
Mt. Milligan	Terrane Metals Corp	Cu-Au
Prosperity	Taseko Mines Ltd	Au-Cu
Red Chris	Imperial Metals Corp	Au-Cu
Roman	Peace River Coal LP	Coal
Ruby Creek	Adanac Molybdenum Corp	Mo
Schaft Creek	Copper Fox Metals Inc	Cu-Mo-Au-Ag
Sechelt Carbonate	Pan Pacific Aggregates Ltd	Limestone/dolomite
Sustut	Northgate Minerals Corp	Cu-Ag
Tulsequah Chief	Redfern Resources Ltd	Cu-Zn-Au-Ag
Wapiti	Hillsborough Resources Ltd	Coal

The **Ruby Creek** molybdenum project received a B.C. Environmental Assessment certificate on September 11, 2007 and Adanac Moly Corp started construction of a camp and access road. The Ruby Creek deposit has a measured and indicated resource of 212.9 million tonnes with a grade of 0.063% Mo, above a 0.04% Mo cut-off. Capital cost to build the mine and a 23 000 tonne per day mill is estimated at C\$640 million.

Western Keltic Mines Inc continued towards submission of the **Kutcho** project report to the Environmental Assessment office in early 2008. The work included studies on road design, fish studies and potential for acid rock drainage. Kutcho Creek is a

polymetallic deposit with measured and indicated resources in the three deposits totalling 17 690 703 tonnes grading 1.71% Cu, 2.36% Zn and 27.5 g/t Ag and 0.34 g/t Au. Western Keltic and the Kaska First Nation (Dease River band) agreed to a funding arrangement whereby the Kaska will review the Project Report and will negotiate a socio-economic participation agreement. A pre-feasibility study showed a favourable return for a 6000 tonne per day mine with an estimated capital cost of C\$299 million. Late in 2007, Western Keltic signed a letter of agreement by which it would be acquired by Sherwood Copper Corporation, an operating company with a new open pit

copper mine in Yukon.

NovaGold Resources Inc received approval to develop its **Galore Creek** property from the B.C. and Federal Environmental Assessment offices and Ministry of Energy, Mines and Petroleum Resources in 2007. NovaGold had entered into a comprehensive agreement with the Tahltan First Nation to support mine development the previous year. On May 23, 2007 NovaGold announced a 50-50 partnership with Teck Cominco to form the Galore Creek Mining Corporation. Construction accomplishments in 2007 included building of 40 km of driveable road and eight permanent and 19 temporary bridges along the 130 km access route. On November 26, 2007, NovaGold and Teck Cominco suspended mine construction when a review showed the project was facing substantially higher capital costs and a longer construction schedule than planned. A comprehensive review to evaluate alternative development strategies was begun. Based on work in 2006, the Galore Creek measured and indicated resource was revised upwards to 928.4 million tonnes grading 0.50% Cu, 0.28 g/t Au and 4.7 g/t Ag. Proven and probable reserves contained within this resource total 540.7 million tonnes grading 0.56% Cu and 0.30 g/t Au, at a 0.25% Cu equivalent cut-off.

At the nearby **Schaft Creek** deposit, Copper Fox Metals Inc evaluated three site options by geologic



Photo 11. North portal of the Galore Creek access tunnel, entrance to the mine site in development.

mapping, geophysical surveys and by drilling overburden and bedrock holes. The proposed pit wall was drilled to recover oriented core for geotechnical study. A 30 km access route was surveyed to connect with the Galore Creek access road at the 65 km mark. The Environmental Assessment Project Report is expected in late 2008. The measured and indicated open pit resource is estimated to be 717.8 million tonnes at a grade of 0.30% Cu, 0.020% Mo, 0.22 g/t Au and 1.8 g/t Ag.

The **Red Chris** project of Imperial Metals Corporation, located 80 km south of Dease Lake, has a B.C. Environmental Assessment Certificate. However, a federal court overturned the project approval under the Canadian Environmental Act on the basis that the federal environmental assessment was procedurally incorrect. This ruling is under appeal by the Minister of Fisheries and Oceans, the Minister of Natural Resources, the Attorney General of Canada and by BC Metals Corporation (a wholly owned subsidiary of Imperial Metals Corp). Open pit mine reserves at Red Chris, determined in 2004, are estimated at 276 million tonnes at 0.349% Cu and 0.266 g/t Au. Imperial Metals drilled six deep holes at Red Chris in 2007, four in the East zone and two in the Main zone. The highlight of the program is an East zone hole that intersected 1024.1 m grading 1.01% Cu, 1.26 g/t Au and 3.92 g/t Ag and bottomed in strong mineralization. The results show the potential for a high grade mining resource extending 700 m below the current pit design.

On the **Mount Klappan** anthracite coal project of Fortune Minerals Limited in northern B.C. commissioned a preliminary economic assessment for the transportation of coal through a buried slurry pipeline to existing infrastructure. Submission of the project report to the Environmental Assessment office is expected later in 2008. The project contemplates a 1.5 to 3 million tonnes per year open pit mine. Anthracite is a premium coal that can be used in a wide variety of specialty applications, including water purification, briquettes for heating and as an ultra-low volatile PCI coal (pulverized coal injection). Coal resources at Mount Klappan occur in four deposits which contain 107.9 million tonnes classified as measured, 123 million tonnes as indicated and 2.572 billion tonnes classified as inferred and speculative. These are compliant with current Securities Commission standards.

Activity resumed on the **Morrison** copper-gold project after a one year hiatus. Pacific Booker Minerals Inc completed geotechnical drilling to assess tailings impoundment sites, metallurgical and engineering work, all related to a feasibility study for a 30 000 tonnes per day open pit mine, is expected to be complete by year-end. The project report is expected in mid-2008. Morrison is a copper deposit with a measured plus indicated resource of 206 869 000 tonnes grading 0.39% Cu, 0.20 g/t Au and 0.005% Mo.

Preparation of a project report continued for the **Davidson** molybdenum project located 10 km west of

Smithers. The proponent, Blue Pearl Mining Limited, is a wholly-owned subsidiary of Thompson Creek Metals Company. The company proposes to develop an underground mine at Davidson and ship the molybdenum ore to its Endako mine for processing. The Davidson molybdenum deposit contains a resource of 75.3 million tonnes grading 0.177% Mo. Exploration drilling was completed in early 2007 to better define a lower mineralized zone.

### ***Northeast British Columbia - Mine Development Projects***

Canadian Dehua International Mines Group Inc plans to develop its **Gething** property, located about 25 km west of Hudson's Hope. This underground operation is proposed to ship two million tonnes/year of clean metallurgical coal to markets in Asia via the Ridley Island terminal at Prince Rupert. The inferred resource is 98 million tonnes of coal. By late 2007, the project was in the Environmental Assessment pre-application stage. Detailed exploration is planned for 2008, together with a feasibility study and the submission of the Environmental Assessment report.

Peace River Coal continued evaluation of its **Roman Mountain** project close to the Trend Mine, completing almost 21 000 m of drilling. About 27 million in-place tonnes of coal had been identified as of June 2007. The Environmental Assessment process for the project began in September 2007 with a pre-application.

Western Canadian Coal submitted its pre-application for the **Hermann** project, located 16 km south of Tumbler Ridge, to the Environmental Assessment Office in 2006. Exploration drilling on the property is complete, and the proposed mine remains in the Environmental Assessment process. Mining is proposed from four pits. From a coal resource of about 9.0 million tonnes, production would be at the rate of between 0.8 and 1.1 million tonnes/year.

Hillsborough Resources Corp and Anglo Coal Canada Inc have completed several studies to support their Environmental Assessment project report submission for their **Horizon (Five Cabin)** coal deposits which are located 25 km southwest of Tumbler Ridge. They propose several open pits with an estimated production capacity of 1.6 million tonnes per year. Mine life expectancy could be up to 20 years. A drill program totalling slightly over 1600 m was completed. A resource of about 42 million tonnes of metallurgical and PCI coal has been identified.

Hillsborough Resources Ltd completed about 800 m of drilling at its **Wapiti** thermal coal project, located about 40 km northeast of Tumbler Ridge. Plans for coal production to supply a nearby electrical generation facility were shelved when the province declined to support coal-fired power generation. Nevertheless, assessment of the property continues and the company is

exploring export opportunities. A measured resource of 80 million tonnes has been defined in this relatively flat-lying section.

Operations at Pine Valley Coal's **Willow Creek** Mine were suspended in October 2006, after the mine had produced about 350 000 tonnes of PCI coal and metallurgical coal. In June 2007, Western Canadian Coal Corp purchased the property with the intent of placing the mine under "care and maintenance" and bringing it back into production in 2008. During 2007, 17 rotary and 3 core boreholes totalling 2001 m were completed.

### ***North-Central British Columbia - Mine Development Projects***

In the Toadoggone region, Northgate Minerals Corp operates the Kemess mine and has been seeking government approval to proceed with development of the **Kemess North** deposit. In September 2007, the Canada-B.C. Joint Review Panel concluded that, "development of the ... **Kemess North** project in its present form would not be in the public interest." Northgate had proposed to dispose of tailings from Kemess North in nearby Duncan (Amazay) Lake, and the panel had found this problematic even though it met the formal environmental requirements. Subsequently, Northgate suspended exploration activity on the deposit. Kemess North's proven and probable reserves, as of the end of 2006, were 423.9 million tonnes grading 0.30 g/t Au and 0.16% Cu. In 2007, Northgate Minerals Corporation concentrated its exploration in the Kemess East area (Orus and Alta zones). The company had completed 18 132 m of diamond drilling and 31 km of 3D-IP survey before activities were suspended in November.

Sable Resources Ltd continued re-development of its **Shasta** gold mine about 30 km north of the Kemess South mine. About 500 tonnes of ore were stockpiled and the goal is to resume shipments in 2008, making use of the Baker mill located about 11 km distant. Earlier production yielded ore grades of 7.8 g/t Au and 530 g/t Ag. Current underground development is in the Creek zone, while surface drilling targeted East, Jock and O zones.

Terrane Metals Corp's **Mount Milligan** project is in the pre-application phase in the Environmental Assessment process. The property is located about 155 km northwest of Prince George. In October 2007, the company announced a preliminary economic assessment that proposed an average annual production of 7748 kg gold and 44 000 tonnes copper for the first six years of a 14.5 year open pit mine life. Activities in 2007 on the property included 11 444 m of drilling with some condemnation drilling, in advance of a feasibility study scheduled for completion in early 2008.

In the Wells-Barkerville area, International Wayside Gold Mines Ltd continued work on its **Bonanza Ledge**

gold deposit, including the Mucho Oro zone along strike, on its Cariboo Gold Quartz property.



Photo 12. Access roads to drill pads at Terrane Metals Corp's Mt. Milligan project.

### ***South-Central British Columbia - Mine Development Projects***

Taseko Mines Limited upgraded the mineral resources and completed a feasibility study for the **Prosperity** gold-copper deposit, located southwest of Williams Lake. In January, the company reported the deposit contains 487 million tonnes of proven and probable reserves at 0.22% Cu and 0.43 g/t Au. The feasibility study laid out plans for a 70 000 tonne per day mine over a 20 year mine life.

The **Blackdome** gold-silver mine and 200 tonne per day mill of J-Pacific Gold Inc is located northwest of Clinton. The property has an historic inferred mineral resource of 124 120 tonnes grading 12.8 g/t Au and 33.7 g/t Ag. In 2007, the company continued drilling to test the relationships between several of the former producing veins. Hole B07-15 returned an assay of 1.75 m of 5.73 g/t Au from the No. 17 vein and shows the potential for ore-bearing structures in an area of little previous exploration.

The historic **Bralorne** gold mine near Goldbridge was the focus of considerable underground drilling by Bralorne Gold Mines Ltd. Drilling tested the extension of the King vein and discovered the BK Zone within a large unexplored gap between the King and Bralorne Mines.

Near Kamloops, New Gold Inc received a Mines Act permit in late October allowing it to proceed with construction of the **New Afton** underground mine. The deposit sits directly beneath an open pit that produced from 1977 to 1987. Combined measured and indicated resources in the Main Zone are estimated at 66 million tonnes grading 1.02% Cu, 0.77 g/t Au and 2.59 g/t Ag. Underground block caving with some sublevel caving is proposed. In 2006 the C-Zone was discovered, which

provided new potential resources below the main zone, and in 2007, hole AF-125 passed through both zones into a new zone of mineralization that yielded an intersection of 122 m grading 1.23% Cu and 1.01 g/t Au. These deep intersections identify mineralization at the deposit at a depth of 1.3 km below the surface.

Almaden Minerals Ltd was active at the **Elk** (Siwash North) gold project 45 km southeast of Merritt. In 2007, the company focused on the collection of baseline environmental and social economic data in support of an internal scoping study of the mining potential. Additional drilling was completed to infill and step out on the Siwash and WD vein packages.

International Bethlehem Mining Corporation through a wholly owned subsidiary owns the **Goldstream** copper-zinc mine-mill complex north of Revelstoke. This year, the company completed a 100 hole program of the mill's tailings pond. Average hole length was around 6 m and the majority of the holes returned assay results of greater than 1.5% Zn. The company plans to do a more detailed drilling and then to proceed with an evaluation of processing the tailings.

The **Similco (Copper Mountain-Ingerbelle)** copper-gold mine at Princeton has been on care and maintenance since 1996. Copper Mountain Mining Corporation embarked on one of the Province's largest 2007 drilling campaigns at the Copper Mountain project with the intention of confirming known resources and expanding those resources through the saddle zones between Pits 1, 2 and 3. Drilling through to late summer supported a restatement of the property's global resources to include measured and indicated resources of 205.9 million tonnes grading 0.37% Cu and inferred resources of 178.9 million tonnes grading 0.31% Cu using a 0.2% Cu cut-off. The company has contracted a proprietary deep penetrating multi-parameter geophysical survey to enlighten the subsurface geological structure and potentially identify further mineralization. Ongoing drilling at the project is intended to allow further evaluation of the property's resources and the commissioning of a feasibility study.

### ***Southeast British Columbia – Mine Development Projects***

Merit Mining Corp has been dewatering and rehabilitating the underground workings on the **Lexington-Grenoble** gold-copper deposit in the Greenwood Gold Project area, located 13 km west of Grand Forks, in preparation for extraction of a 10 000-tonne bulk sample. Construction is also underway on a 200 tonnes-per-day mill. An application for a Small Mine permit was submitted to the Ministry of Energy, Mines and Petroleum Resources in late 2007. A preliminary economic assessment was made earlier in 2007. Diamond drilling was carried out on the Lexington-Grenoble and the adjacent **Golden Crown** occurrence. Lexington-Grenoble deposit resources include 297 000 tonnes

combined measured and indicated resources, containing 8.36 g/t Au and 1.35% Cu at a cut-off grade of 6.0 g/t Au equivalent. The project resource base was more than doubled in 2007 with completion of a resource estimate on the adjacent Lone Star deposit in Washington State.

Cline Mining Corp entered the Environmental Assessment Process in 2006 with its **Lodgepole** open-pit coal project, located 30 km southeast of Fernie. Public meetings were held on the project terms of reference in early 2007, but no further exploration or development work was carried out.

### ***Southwest British Columbia - Mine Development Projects***

Polaris Minerals Corp plans a feasibility study on their proposed **Eagle Rock** operation near Port Alberni which would supply a crushed granitic aggregate product. It is currently permitted and has a 681.9 million tonne resource. The plans include construction of a ship-loading facility.

## **MINERAL EXPLORATION**

More than 470 exploration projects were carried out during 2007. There were 100 projects with expenditures in excess of \$1 million, up 75% from 2006, and representing approximately 78% of total expenditures (Figure 6).

The total metres drilled rose significantly to approximately 1.254 million m, up 29% from 2006. Again in 2007 many companies were unable to complete programs due to a shortage of drills, drillers, field crews and/or helicopters. As well, delays in receiving analytical results were common. As a result, some programs were not completed before the onset of severe winter weather either slowed or shut them down and companies have been slower to report their results.

At least 25 new mineral discoveries were made in 2007 throughout the province (Figure 7). They are porphyry, polymetallic massive sulphide, vein, skarn or carbonatite prospects.

### ***Northwest - Major Exploration Projects***

CZM Capital Corp drilled 26 core holes (4650 m) to test epithermal gold-silver mineralization on the **Tag** property located on Tagish Lake, 35 km west of Atlin. The highlight of the first phase of drilling is an interval from TAG07-29 that graded 1.3 g/t Au and 5.9 g/t Ag over 35.0 m.

Prize Mining Corporation excavated a 10 000 tonne bulk sample on the **Yellow Jacket** gold property near Atlin. Abundant talc and serpentinite resulted in poor

crushing characteristics so that most of the material remains to be treated in 2008.

Columbia Yukon Resources Inc continued to drill the **Storie** deposit near Cassiar to upgrade the molybdenum resource, completing 23 000 m in 76 holes. From work in 2006, an inferred resource was calculated of 101.59 million tonnes containing 0.067% Mo, at a cut-off of 0.035% Mo. Columbia Yukon signed an agreement, with the Dease River Indian band, that extends through the anticipated two-year exploration phase of the project.

Cusac Gold Mines Ltd continued the **Taurus** project expansion of a bulk-tonnage gold zone on its mineral property near Cassiar. Drilling (2600 m in 15 holes) returned up to 1.25 g/t Au over 79.9 m and 27.9 g/t Au over 5.5 m.

The **New Polaris** gold project is centred on the past producing Polaris mine. Canarc Resource Corp reported a measured plus indicated undiluted resource of 1.67 million tonnes grading 10.62 g/t Au and an inferred resource 2.06 million tonnes grading 10.5 g/t Au. Both are at a 2 g/t cut-off grade. A preliminary assessment was made to build a mine to produce 80 000 oz of gold per year. Development cost is projected to be C\$90.5 million and cash cost at US\$327 per oz.

The **Eaglehead** porphyry copper prospect, 50 km east of Dease Lake, was drilled by Carmax Explorations Ltd. Twelve holes (4100 m) were completed, testing IP anomalies along the projected southeast trend of the copper-molybdenum zone. Carmax reported 0.257% Cu, 0.009% Mo and 0.059 g/t Au over a 334.4 m core length in its second hole of the program.

Hard Creek Nickel Corporation continued to drill a potential bulk-tonnage nickel deposit on the **Turnagain** property, 70 km east of Dease Lake. The Horsetrail zone contains a measured and indicated resource of 489 152 tonnes grading 0.163% Ni contained in sulphide minerals and 0.012% Co. The resource estimate includes the first 19 holes of the 74 drilled in the 2007 program (totalling 24 500 m). Sulphide nickel grades are based on selective leach analyses that constitute 60-90% of the total nickel, which averages 0.222%. An additional 560 million tonnes is inferred at 0.152% Ni. A four tonne sample for metallurgical testing was extracted using PQ core.

Canadian Gold Hunter Corporation continued to delineate the Donnelly copper-gold zone on the **GJ** property located 25 km southwest of Iskut. Eighty holes totalling 15 800 m were drilled. Prior to the 2007 program, the indicated resource stood at 172.15 million tonnes grading 0.274% Cu and 0.312 g/t Au, at a cut-off of 0.15% Cu.

Paget Resources Corporation continued to explore the **Ball Creek** copper prospect 10 km west of Highway 37, north of Bob Quinn. Fifteen holes (2900 m) were completed. Hole BC07-12 intersected 231 m starting at the top of the hole that assayed 0.208% Cu, 0.535 g/t Au and 0.005% Mo. Paget Resources tested three other targets between Ball Creek and Schaft Creek.

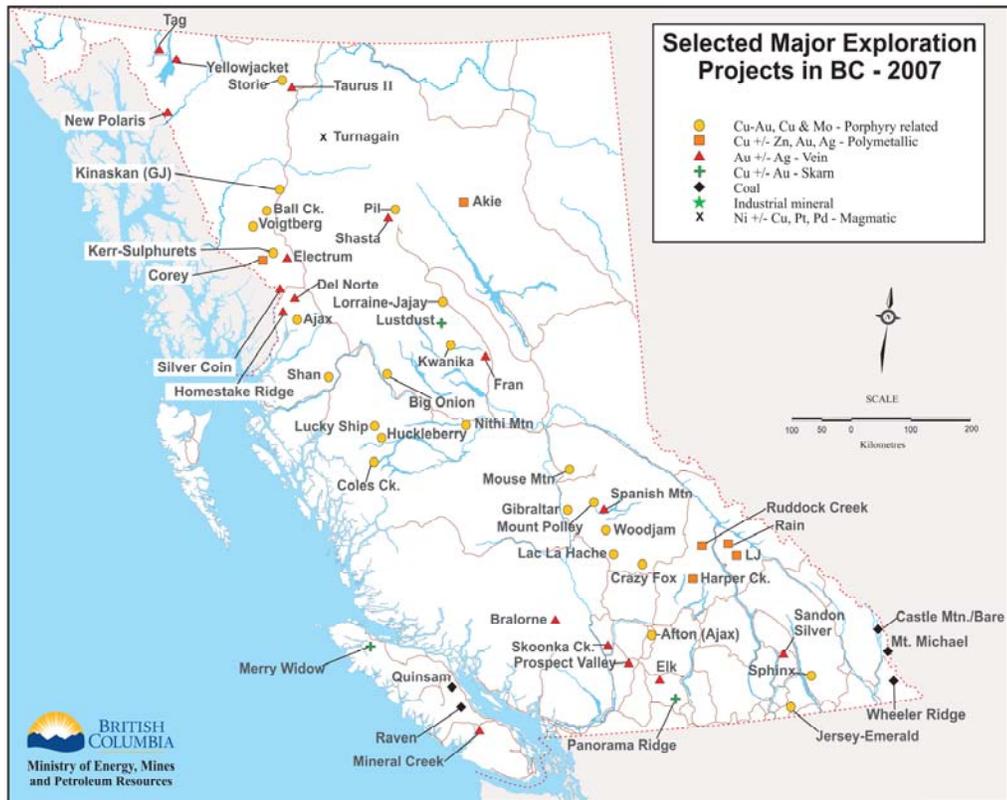


Figure 6. Selected major exploration projects in British Columbia – 2007.

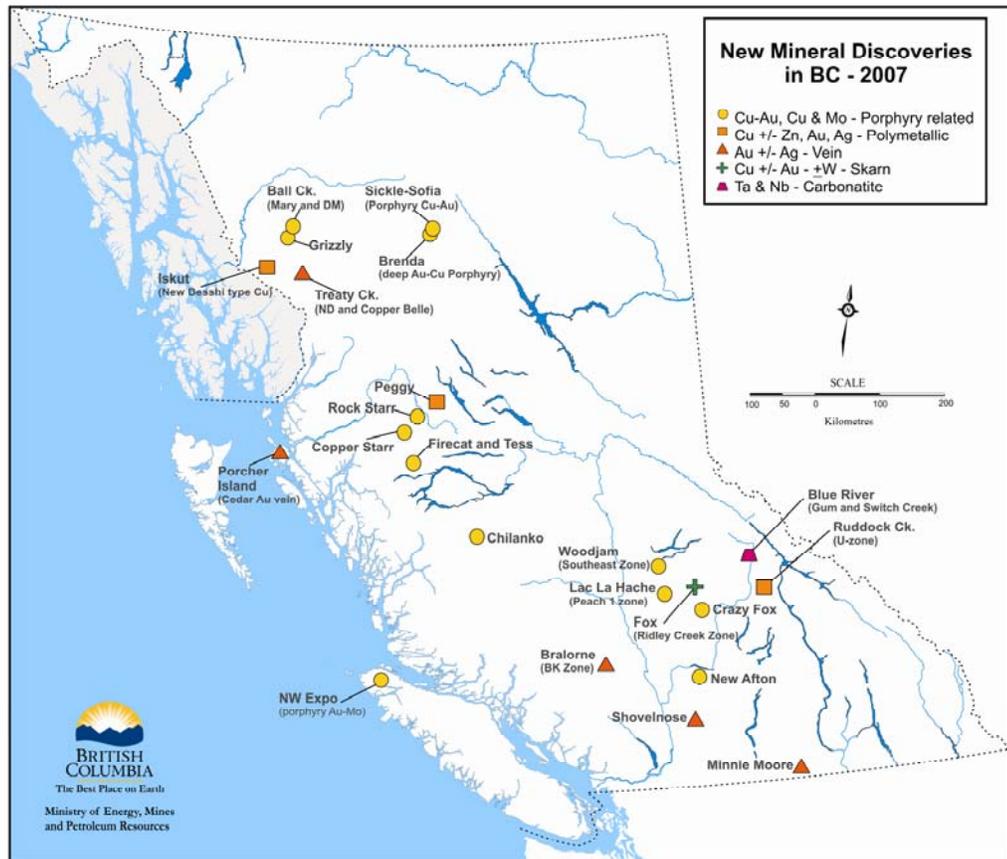


Figure 7. New mineral discoveries in British Columbia – 2007.

Exploration drilling by NovaGold Resources Inc, away from the main Galore Creek mine site, focused on **Copper Canyon**, where 4940 m was completed, and the **Butte** zone. Prior to the program, inferred resources at Copper Canyon stood at 164.8 million tonnes at 0.35% Cu, 0.54 g/t Au and 7.2 g/t Ag, at a 0.35% Cu equivalent cut-off.

BC Gold Corporation conducted airborne geophysics, infill soil geochemistry and drilled four holes on the **Voigtberg** property located 20 km northwest of Bob Quinn. The program followed up on a 2006 drill intersection of 51.1 m containing 1.03 g/t Au. Rocks containing pseudoleucite, indicative of an alkalic igneous system, were intersected by the 2007 drilling.

Spirit Bear Minerals Ltd discovered copper-bearing massive sulphide on the **Iskut** project at Johnny Mountain. Two 700-metre holes were drilled to test the gold-bearing Zephrin zone below the workings of the Johnny Mountain mine. Drillhole SB-07-03 intersected massive and semi-massive pyrrhotite, pyrite, magnetite and chalcopyrite over widths of 1.2, 14.3, 2.1 and 1.4 m over a 105 m core interval. A total of 3000 m was drilled in 5 holes.

The **Bronson Slope** gold-copper project was the subject of a 4000 m drilling program by Skyline Gold Corporation. The Red Bluff zone was estimated, prior to the 2007 program, to contain a measured plus indicated resource of 129.8 million tonnes at a grade of 0.44 g/t Au and 0.16% Cu.

American Creek Resources Ltd reactivated exploration on the **Treaty Creek** gold property 25 km southwest of Bell II on Highway 37. Recession of the Treaty glacier enabled discovery of the ND and Copper Belle showings. Thirty holes were drilled for a total of 5470 m. Intercepts in the Eureka zone include 0.69 g/t Au and 2.89 g/t Ag over 75.45 m and an impressive 0.33 g/t Au, 2094 g/t Ag and 0.38% Cu over 8.5 m with the hole ending in mineralization. Highlights from the Copper Belle zone include 0.93 g/t Au and 8.78 g/t Ag over 76.1 m and 1.32 g/t Au, 5.93 g/t Ag and 0.09% Cu over 30.2 m.

The **Kerr-Sulphurets** copper-gold project of Seabridge Gold Inc is located 40 km north of Stewart. Work up to 2006 in the Mitchell zone identified an inferred resource of 564 million tonnes containing 0.72 g/t Au and 0.18% Cu. The 2007 drill program (15 000 m in 37 holes) was designed to upgrade and expand the resource to allow an updated resource estimate and preliminary economic assessment. Two historic resources, the **Kerr** copper-gold deposit and the **Sulphurets** gold deposit will be reviewed to bring them into compliance with NI 43-101.

Silver Standard Resources Inc continued to explore the **Snowfields** gold prospect (MINFILE 104B 179), the southeasterly continuation of the Mitchell zone. Core drilling at Snowfield amounted to 8500 m and included some step-out holes. Work in 2006 led to a measured plus



Photo 13. Desmond O'Brien, co-discoverer of the Copper Belle and ND showings at Treaty Creek, takes a sample.

indicated resource estimate of 49.4 million tonnes at a grade of 1.48 g/t Au and 0.012% Mo above a cut-off of 0.05 g/t Au.

Kenrich-Eskay Mining Corporation continued to explore the **Corey** property for an Eskay Creek-type deposit. Corey is located 12 km south of Eskay Creek mine. Twenty-one drillholes recovered more than 5700 m of core. Drillhole RL-2 intersected 1.6 g/t Au, 352 g/t Ag, 0.43% Cu and 1.86% Zn over 0.5 m.

The **Electrum** property of American Creek Resources Ltd covers the former East Gold mine, a small producer of gold from a very rich vein of electrum. American Creek continued a major systematic drilling program, 12 500 m in 45 holes.

Ascot Resources Ltd conducted rock trenching (452 lineal m) and drilling (4855 m in 36 holes) on the **Dilworth** property. Surface sampling returned up to 9.4 g/t Au and 246 g/t Ag in the Central Chicago zone, 5.8 g/t Au and 386 g/t Ag in the Hammer zone and 9.8 g/t Au and 1068 g/t Ag in the Forty-Nine zone.

Pinnacle Mines Ltd continued to drill on the **Silver Coin** property (Silver Butte) located 24 km northwest of Stewart. Fifteen holes (2764 m) were completed. Prior to the 2007 program, MineFill Services calculated an inferred resource of 25.66 million tonnes grading 1.66 g/t Au, 7.49 g/t Ag and 0.28% Zn at a cut-off grade of 0.75 g/t Au.



Photo 14. Portable XRF analyzer gives immediate indication of copper, and by inference the gold grade of Mitchell zone drill core.

**Barbara Anne** (or **BA**) is a project of Mountain Boy Minerals Ltd, located 30 km from Stewart. Drilling was done on a 20 m grid and totalled 4245 m in 31 holes. Highlights include an intersection of 29.0 m that graded 203.5 g/t Ag, 2.5% Pb and 1.0% Zn.

The **TJ Ridge** base and precious metal property of Roxgold Inc is located 95 km north of Hazelton. Work comprised some 2000 m of trenching, 564 km of airborne EM and magnetic survey, and eighteen core holes totalling 2900 m.

Bravo Venture Group Inc returned to the **Homestake Ridge** gold-silver prospect, 35 km southeast of Stewart, to complete 9300 m of drilling in 28 holes. Drilling in 2006 identified an inferred resource of 2.3 million tonnes grading 7.53 g/t Au, 31 g/t Ag and 0.27% Cu at a 3 g/t Au cut-off.

Drilling by Tenajon Resources Corporation on the **Ajax** prospect, 14 km north of Alice Arm, amounted to a twelve-hole, 2300 m program. The westernmost hole 2007-3 on the deposit intersected 0.091% Mo over 236.2 m. Inferred resources stood at 448.8 million tonnes grading 0.063% Mo prior to the 2007 program.

Kenrich-Eskay Mining Corporation also continued its exploration in the Anyox district on the **Coastal Copper** project. Work focused on the **Double Ed** deposit with the drilling of 7 holes (2580 m). Double Ed contains a

resource of 1.85 million tonnes grading 1.6% Cu and 1.0% Zn. Also in the Anyox district, SNL Enterprises Ltd explored the **Copper Pendant** property. Targets from an airborne EM and magnetic survey flown in 2006 were tested by drilling (four holes, 1164 m) in 2007.

Tenajon Resources Corporation performed a 23 km IP and magnetic survey on the **Burn** property and drilled five holes totalling 1500 m. The property is located near Kispiox, 14 km north of Hazelton.

Nass Valley Gateway Ltd evaluated a granite rock quarry site at **Nass Bay** near Kincolith where the Nass River enters the Portland Canal. Twenty-three holes totalling 3000 m were drilled. The granite could be loaded onto ships or barges as rock or crushed aggregate for construction purposes for the local (Prince Rupert) or offshore markets.

Jet Gold Corporation carried out a drilling program of sixteen holes (1215 m) in the Terrace-Kitimat graben on the **Naskeena** thermal coal deposit (MINFILE 103I 002) located 50 km north of Terrace. The best hole cut 4.8 m of coal in a 30 m interval beginning 15 m below surface.

BCM Resources Ltd continued to explore the **Shan** property 20 km northeast of Terrace. An airborne magnetic survey and more than 9200 m of drilling were completed. Core intersections in the Las Margaritas zone are up to 0.107% Mo over 112.7 m (in LM007) and 0.103% Mo over 190 m (in LM027).

Definition drilling continued at the **Big Onion** porphyry copper prospect, located 16 km east of Smithers, by Eagle Peak Resources. A major core drilling program was done, comprised of 62 holes totalling more than 16 600 m.

The **Lone Pine** project 35 km south of Smithers, explored by Bard Ventures Ltd, covered the Alaskite, Mineral Hill, Quartz Breccia and Granby molybdenum zones with a 38 km three-dimensional IP survey. A first phase drill program returned 0.054% Mo over 231.4 m in one hole in the Quartz Breccia zone. The on-going second phase program is focused in the Alaskite zone.

North American Gem Inc conducted another winter drilling campaign at the **Louise Lake** porphyry prospect west of Smithers. Twenty holes (more than 6200 m) were completed that led to a revised resource estimate of 26 million tonnes (indicated) at 0.231% Cu, 0.008% Mo and 0.22 g/t Au and 125 million tonnes (inferred) at 0.239% Cu, 0.008% Mo and 0.23 g/t Au. A metallurgical study is on-going and further drilling is scheduled in early 2008.

Cross Lake Minerals Ltd completed a major drill program early in 2007 at the past-producing gold mine on **Porcher Island**, located 35 km southwest of Prince Rupert. Almost 12 000 m was completed in 39 holes and featured discovery of the new Cedar gold-bearing vein with intersections from 10 holes ranging from 7.1 to 27.0 g/t Au over widths of 1.0 to 3.4 m.



Photo 15. Geologists examine skarn horizons on the New Moon property.

The long-dormant **Berg** porphyry copper-molybdenum prospect was reactivated by Terrane Metals Corporation. The property is 84 km southwest of Houston and 22 km. A major drilling program (11 300 m in 29 holes) will bring the historic resource estimate of 238 million tonnes grading 0.40% Cu and 0.031% Mo into compliance with current standards.

New Cantech Ventures Inc completed definition of the molybdenum resource on the **Lucky Ship** project 65 km southwest of Houston. Fifty holes totalling more than 15 000 m were drilled and a preliminary economic assessment was done for a 10 000 tonnes per day open pit mine based on an open pit resource of 55 million tonnes grading 0.062% Mo. The indicated resource is 52.6 million tonnes at 0.071% Mo.

At the copper-gold **Seel** and adjoining copper-molybdenum **Ox Lake** prospects, Gold Reach Resources Ltd completed drilling that totalled 9373 m in 38 holes. An additional 88 km of IP surveying was also completed, to guide the drilling. The properties are 110 km south of Houston and just 7 km from the Huckleberry copper mine.

### *Northeast - Major Exploration Projects*

Aries Resource Corp began drilling on its **Trident** high-grade vein-copper property, near the historic, past-producing Magnum-Churchill mine, 145 km southwest of Fort Nelson. It plans to test numerous Iron Oxide-Copper Gold targets.

First Coal Corp pursued a modest drilling program on its **Goodrich Central South** property southwest of the former Willow Creek mine. About 41 million tonnes of measured and indicated, and 32 million tonnes of inferred metallurgical coal resource has been identified. First Coal plans to extract a 100 000 tonne bulk sample in 2008.

At the **EB** deposit of Western Canadian Coal Corp, located about 10 km west-northwest of the Perry Creek Pit, probable reserves of about 7.4 million tonnes of metallurgical coal were delineated further by some 4400 m of drilling in 2007.

An additional 1600 m of drilling was completed at PRC's **Horizon** project, with an Environmental Assessment Application expected to be submitted late in 2008. About 42 million tonnes of metallurgical and PCI coal resource have been identified.

### *North-Central - Major Exploration Projects*

In the Gataga Sedex belt north of Prince George, Mantle Resources Inc drilled its **Akie** zinc-lead-silver deposit, focusing on the Cardiac Creek zone. The mineralized horizon is up to 30 m thick. Hole A-06-39A intersected 18.1 m grading 8.16% Zn, 1.58% Pb and 13.9 g/t Ag. Ten kilometres along trend to the northwest, Ecstall Mining Corp identified a new Sedex system on its **Pie** property, and tested its **Yuen** property which is located farther to the northwest.

Christopher James Gold Corp concentrated on the Bonanza zone on its **Ranch** gold prospect, located about 310 km north of Smithers. Forty-five boreholes totalling 7193 m were drilled; hole A07-26 returned 6.88 g/t Au over a 6 m interval.

Finlay Minerals Ltd continued exploration of its **Pil** property, concentrating on the **Atlas East** gold-silver target. Soil and rock geochemistry and an IP program provided context to a 7 hole (2410 m) drilling program.

Canasil Resources Inc completed a 3D-IP survey and 1708 m of diamond drilling at its **Brenda** project, located about 25 km northwest of the Kemess Mine. Two holes drilled to depths of more than 500 m intersected gold-copper mineralization open at depth. The average grade of 3 intercepts below 450 m, totalling 92.84 m, was 0.68 g/t Au and 0.116% Cu.

Mantle Resources Inc acquired Ecstall Mining Corp in February 2007, and with it the **Akie** lead-zinc-silver project, located about 250 km northeast of Mackenzie. A previous operator (Inmet) estimated the core zone resource at 50 million tonnes, grading 8.52% Zn, 1.4% Pb, and 13.2 g/t Ag. The 2007 program consisted of 23 drillholes totalling about 15 000 m.

Drilling and sampling on Westhawk Development Corp's **Groundhog** anthracite coal project, west of Thutade Lake, was suspended for 2007. The company negotiated an agreement with First Nations with interests in the area and completed a NI 43-101 report on the property. That report was released in August and identified a speculative coal resource of between 154 and 168 million tonnes.

Geoinformatics Exploration Canada Inc undertook extensive exploration on its **Mesilinka, Takla-Redton,**

**Weedon**, and **Nighthawk** copper-gold properties in north-central British Columbia. The 2007 program consisted of regional reconnaissance and mapping, soil geochemistry, and drilling, especially on the Mesilinka prospect north of Tchentlo Lake. Solomon Resources Ltd's **COL-Magnet** copper gold property is located just north of the east end of Tchentlo Lake. Activities in 2007 included an extensive program of geological mapping, soil geochemistry, trenching and drilling.

Taseko Mines Ltd acquired Aley Corp in November 2007, including the **Aley** carbonatite-hosted niobium prospect, located east of Ospika Arm, Williston Lake. Previous exploration drilling had indicated between 20 and 30 million tonnes of mineralized rock with 18 of 20 holes having intersections of greater than 8 m in length averaging 0.75% Nb<sub>2</sub>O<sub>5</sub>. Aley Corp completed 11 boreholes totalling 1379 m in the 2007 program.

Teck Cominco Ltd continued exploration on its **Lorraine-Jajay** and **Jan/Tam Misty** copper-gold prospects in the Swannell Ranges northwest of Germansen Landing. An extensive drilling program concentrated on testing Jan/Tam Misty mineralization, with a broader review of Lorraine-Jajay including about 24 km of IP and magnetics.

Alpha Gold Corp's **Lustdust** gold-silver-copper-zinc-lead property is located about 5 km north of Kwanika. In 2007, about 50 line km of soil geochemistry and IP, mapping, and 11 boreholes totalling about 2757 m were completed. A NI 43-101 compliant resource estimate is expected early in 2008.

Serengeti Resources Inc completed some 22 000 m of diamond drilling on 50 m centres and averaging 500-600 m in depth to delineate further its **Kwanika** copper-gold-molybdenum deposit located about 40 km east of Takla Landing. For example, borehole K-07-29 intersected 48.6 m of 0.75% Cu and 2.5 g/t Au, and K-07-28 intersected 322 m of 0.40% Cu and 0.40 g/t Au. A supergene copper zone grading 0.76% Cu and 0.21g/t Au extended over 119.6 m. The mineralized system is oriented in a north-northwest direction for up to 750 by 200 m across and is up to 500 m deep.

Yankee Hat Minerals Ltd completed a major drilling and trenching program on the North Contact gold zone on its **Fran** porphyry-related property. Drillhole FR-59 intersected 4.85 m grading 10.96 g/t Au, 40.15 g/t Ag and 1.48% Cu within a 54.6-metre interval grading 1.18 g/t Au.

The **Nithi Mountain** molybdenum deposit of Leeward Capital Corp is located south of the community of Fraser Lake and about 18 km east of the Endako molybdenum mine. The several mineralized zones cover an area of about 4 by 2 km and are at least 200 m in depth. In 2007, the company completed about 103 boreholes totalling 26 000 m on the Gamma, Sigma and Delta zones, concentrating on the Gamma. Leeward also completed a soil sampling program, airborne radiation/magnetics, and a Lidar survey of the property.



Photo 16. Heli-supported drilling at Aley project, acquired by Taseko Mines in November 2007.



Photo 17. Boxes of split core at Serengeti Resources Inc's Kwanika camp east of Takla Landing.



Photo 18. Jim Davis, Brian Grant and Sheila Jonnes examine Nithi Mountain core.

Based on results to date, Leeward estimates the Nithi deposit to be in the range of 100 to 150 million tonnes grading 0.06% MoS<sub>2</sub>.

Another molybdenum deposit, TTM Resources Inc's **Chu** prospect, is located about 80 km south-southwest of the community of Vanderhoof. During 2007, extensive IP, soil surveys and 27 boreholes (15 000 m) were completed. A formal resource estimate is expected shortly.

Graymont Western Canada Inc undertook an extensive drilling program of about 7000 m – on a grid pattern with holes to about 300 m depths – to define a large, high-purity limestone deposit on its **Pat** group of claims about 8 km southeast of the community of Giscome. The company's intent was to develop lime kilns burning 600 000 tonnes/yr of limestone with hopes of producing 200 000 tonnes/yr of lime. Graymont had begun technology studies, environmental baseline studies, land agreements and consultations to move the project forward. In December 2007, the Company suspended its consultation and environmental assessment process pending clarification of the Provincial Government's regulatory intent regarding the production of greenhouse gases.

South of Vanderhoof, Silver Quest Resources Ltd explored several epithermal gold-silver prospects, including **Blackwater-Davidson** and **3Ts**. At 3Ts, previous resources were calculated for the Upper Tommy and Upper Ted epithermal veins. The company plans to release a resource estimate for the Lower Ted vein.

Richfield Ventures Corp delayed exploration activity on its **Mouse Mountain** copper-gold property, located about 5 km west of Quesnel, until late October following amalgamation with Oak Point Capital Corp. By year-end, about 1000 m of a planned 5000 m drilling program had been completed, with the remainder to be drilled in 2008.

Northeast of Quesnel, Richfield Ventures Corp completed an extensive trenching program on its **Mouse Mountain** alkalic porphyry prospect.

In the Wells-Barkerville gold belt, International Wayside Gold Mines Ltd drill tested its **Mucho Oro** gold zone, a few hundred metres southeast and along trend from its Bonanza Ledge zone. Williams Creek Explorations Ltd drill tested its **Westport** mesothermal vein property, which is an easterly projection of the Mucho Oro zone.

Exploration at the **Spanish Mountain** bulk tonnage gold property of Skygold Ventures Ltd (70%) and Wildrose Resources Ltd (30%) continued at a high level. During 2007, a long-term operations base was constructed just outside Likely, and about 120 drillholes comprising 26 000 m were completed on the Central Main and Placer zones. About 20 km of soil geochemistry sampling was completed as well. In December 2007, Skygold and Wildrose agreed to a merger whereby Skygold would acquire a 100% interest in the property.

Immediately to the north and east of the Mount Polley mine, Valley High Ventures Ltd completed a drilling project on the **Boundary** and **Frypan** zones on its **Lloyd-Nordik** property.

South of the Mount Polley mine, Fjordland Exploration Ltd (under a joint venture agreement with Wildrose Resources Ltd) continued to drill potentially significant gold-copper mineralization in the Megabuck and Takom zones on the **Woodjam** property. On the southern extension of the Megabuck zone, drillhole 06-051 intersected 208 m grading 0.55 g/t Au and 0.12% Cu. Adjoining the Mount Polley mine to the north is Valley High Ventures Ltd's **Lloyd-Nordik** porphyry copper-gold property. Drilling targeted the continuation of similar-style mineralization in Imperial's Northeast zone in the Boundary zone. The best intersection of the 2006 program was a 21-metre intersection grading 2.01% Cu and 0.68 g/t Au.

Meanwhile Copper Ridge Explorations Inc completed a 13-hole, 3219 m program to the north of the Gibraltar Mine on its **Copper Ace** property.

Just south of Quesnel Lake, NovaGold Resources Inc explored a copper-gold target on its **Shiko Lake** property, completing 2295 m of diamond drilling in 11 boreholes and 12 km of deep-sensing IP.

Hawthorne Gold Corp continued work on its **Frasergold** property located about 65 km east of Horsefly, along strike from Spanish Mountain. In 1991, James Askew Associates estimated a resource on the property of 6 million tonnes of mineralized material grading 0.17 kg/t Au. In 2007, Hawthorne completed about 5000 m of diamond drilling on the site and about 1300 km of airborne geophysics.

Fjordland Exploration Inc, with its 40% partner, Cariboo Rose Resources Ltd, continued exploring the **Woodjam** copper-gold property, located about 10 km south of the village of Horsefly. A 100 km IP survey led to the discovery of the Southeast Zone. Four holes were drilled in the Southeast zone and six in the Megabuck zone totalling about 3000 m. Hole 07-73 in the Southeast zone returned values of 0.18% Cu and 0.0064% Mo over 243 m, including 0.27% Cu and 0.015% Mo over 66 m.

### ***South-Central - Major Exploration Projects***

Commerce Resources Corp continues to advance its Blue River tantalum and niobium project. This year's focus was largely aimed at drilling the **Upper Fir** carbonatite, which presently has an indicated resource of 8.6 million tonnes grading 208.2 g/t Ta<sub>2</sub>O<sub>5</sub> and 1372.6 g/t Nb<sub>2</sub>O<sub>5</sub> at a cut-off grade of 150 g/t Ta. Two new carbonatite showings were discovered in 2007, the **Lower Gum Creek** and **Lower Switch Creek**. The company has expanded its environmental and community outreach programs this year in support of a proposed pre-feasibility study.

Happy Creek Minerals Ltd found tungsten and molybdenum skarn mineralization at the Nightcrawler and Discovery zone at the **Fox** property near Mahood Lake, east of Lac La Hache. Ten drillholes completed this year encountered mineralization over a strike length of 1.5 km.

At the **Lac La Hache** porphyry copper-gold property of GWR Resources Inc, much of this year's work was focused on exploring the Aurizon zone of the Ann property. AZ-07-21, was drilled to better define the geometry of the zone and yielded confirmation values of 90 m of 0.387% Cu and 0.61 g/t Au. About 1 km west of the Aurizon zone, the company reported a new copper-gold discovery at the **Peach 1** property. Hole P07-01 drilled below a mineralized trench intersected a deeper zone that yielded 86 m of 0.50% Cu and 0.42 g/t Au.

Selkirk Metals Corp continued a very aggressive program at the **Ruddock Creek** property located within the Script Ranges, about 100 km north of Revelstoke. The company has begun an exploration decline aimed at underground drilling and engineering studies of the E-Zone. Collared in early September, the 1000-metre decline should be completed by the second quarter of 2008. Much of this year's surface drilling was focused on other zones along the Ruddock Creek sulphide horizon which stretches in excess of 5 kms in strike length. The Creek Zone, which was discovered in 2006, was tested by wide spaced holes aimed at significantly expanding its extents. The company has reported very encouraging results from this campaign indicating the mineralization style and character is very similar to the E-Zone. At the westernmost extents of the Ruddock Creek sulphide horizon and in the Oliver Creek Valley, the Q-Zone was drilled and realized an intersection of 5.32 m of 6.18% Zn and 1.36% Pb in hole RD-Q-2. In 2007, the company drilled the U-Zone surface showings to reveal new mineralization at depth which is reflected in results such as 7.7 m of 21.48% Zn and 2.5% Pb in hole RD-07-U2.

Partners Island Arc Exploration Corp and Rimfire Minerals Corporation were busy at the **Jake Gold** property located west of Clearwater. Around the Jake, discovery 2007 sample results are reported to include 7.7 g/t Au over 2.8 m. A fall drilling program was conducted at the property with results pending. CMC Metals Ltd trenched and drilled the **CK** property located northwest of Clearwater. The CK occurrence has an historical resource of 1.643 million tonnes grading 8.6% Zn and 1.4% Pb. The company focused on in fill drilling and trenching the New zone which has been traced over a strike length of 1300 m and to depths of over 100 m down dip.

Newmac Resources Inc drilled the **Crazy Fox (Anticlimax)** porphyry molybdenum-tungsten property north of Little Fort over two occasions this year. Early reports indicate the mineralization appears to be more abundant than previous holes drilled on the property. West of Little Fort, Candorado Operating Company Ltd trenched and drilled the **Deer Lake** property in search of skarn and porphyry copper-gold mineralization. Grab

samples from the properties have returned assay results that range from 2.75-3.8% Cu and 9.89-14.9 g/t Au.

At the **Harper Creek** copper deposit located 10 km southwest of Vavenby, Yellowhead Mining Inc completed a third phase of drilling in the fall and commenced a fourth phase. The company released figures showing an indicated resource of 450 million tonnes grading 0.323% Cu and an inferred resource of 142 million tonnes grading 0.326% Cu, both at a 0.2% Cu cut-off for the deposit. The company is proceeding with baseline environmental and community consultation work as well as scoping studies that will lead to a proposed feasibility study in 2008.

Venturex Explorations Inc was active at the **LJ** lead-zinc property, located 35 km north of Revelstoke, and completed twelve drillholes at the Carnes Creek showing. Just to the east is the **J & L** property where Merit Mining Corp is exploring a gold-silver-lead-zinc deposit with an historical combined resource of 3.607 million tonnes of 7.24 g/t Au, 81 g/t Ag, 3.0% Pb and 3.93% Zn from the Main Zone and 1.03 million tonnes of 52.5 g/t Ag, 2.47% Pb and 7.09% Zn from the Yellowjacket Zone. The company has established an all weather camp to allow it work through the winter on underground development that will include 1000 m of crosscutting and 5000 m of underground drilling. A pre-feasibility study is underway as are environmental and baseline studies.

At the **Taseko Lake** property, located 15 km south of the Prosperity project, Galore Resources Inc completed a large airborne time-domain and magnetic survey with follow-up drilling of copper, gold and molybdenum targets. Nearby, Great Quest Metals Ltd drilled the Granite Creek and Empress areas at the **Taseko** property. The Empress area hosts an historical resource of 10 048 000 tonnes of 0.61% Cu and 0.79 g/t Au. At the **Chilanko** property located north of Tatla Lake, Newmac Resources Inc completed a winter IP program that successfully delineated strong response targets through a window in the Miocene age basalt. Subsequent trenching and drilling successfully intersected copper mineralization.

J-Pacific Gold Inc was active at the **Elizabeth** property, located 30 km away from the company's mill at the Blackdome mine, where the Southwest gold zone was drilled. This year produced some exceptional results, as is best shown in hole E07-43 which intersected 37.5 g/t Au over 11.2 m and 4 other intersections that ranged from 10.52-21.26 g/t Au over lengths of 1.15-4.33 m. This property could use the mill at Blackdome if ore is delineated. Anglo-Canadian Uranium Corp drilled the **Stirrup** property located west of Clinton where epithermal gold-sulphide-quartz veins are hosted within marine sedimentary rocks of the Lower Cretaceous Jackass Mountain group. The program was designed to follow-up on previous drilling where hole 2005-2 yielded results as high as 17.19 g/t Au over 0.8 m and 9.75 g/t Au over 0.7 m.

American Creek Resources Ltd was very active at the **Austruck-Bonanza** and **Empire (Jamieson-Bullion)** properties north of Kamloops. Numerous targets were drilled with mostly disappointing results.

The **Congress** gold property of Levon Resources Ltd is located 11 km north of the Bralorne mine and on the north side of Carpenter Lake. Recent work has extended the Lou zone structure by 500 m to the north and validated the Golden Ledge zone which was discovered in 2005. In 2007, the **Boo Coo** high-grade surface discovery was drilled where assay results from chip samples ranged from 0.19 to 27.68 g/t Au. Drilling was also completed in the Gun Creek canyon. Nearby at the Congress property, Avino Silver & Gold Mines Ltd drilled a few follow-up holes on the Minto property where recent drilling yielded intersections of up to 0.25 m grading 45.4 g/t Au from hole MO-06-01.

Abacus Mining and Exploration Corp released results indicating the **Ajax West** deposit contained inferred mineral resources of 147 million tonnes grading 0.36% Cu and 0.22 g/t Au at a cut-off of 0.2% Cu. The company drilled the **Ajax East** deposit in support of defining a resource estimate in early 2008. The signing of letters of intent with New Gold Inc in November will enable the company to expand its efforts in defining a larger mineral resource around the **Ajax West** and **East** deposits. Abacus Mining and Exploration Corp continued to drill the **DM-Audra-Crescent Zone**, which presently is open at depth and along strike. A recalculated resource for this zone is expected in early 2008.

On the large **Skoonka Creek** project, Strongbow Exploration Inc focused on advancing several zones within the Discovery-Backburn trend to a point of readiness for drill testing. A total of thirteen holes were drilled with the majority of them at the **Deadwood** showing. The remaining holes were drilled at the **Backburn Central, Backburn East, Ember** and **JJ** showings. The company was also active on the **Ponderosa** gold property that it optioned from Almaden Minerals Ltd. This year's program concluded with the drilling of six holes. Strongbow Exploration Inc discovered the **Mik** and **Line 6** gold showings on the **Shovelnose** property located 30 km south of Merritt. Anglo-Canadian Uranium Corp advanced its **Skoonka (B4, B5, B6)** project to a drilling phase after identifying targets utilizing ground magnetic and IP surveys, prospecting and MMI soil sampling. Other grassroots programs in the belt include: the **Dora, Stobart** and **Fame** properties (Appleton Exploration Inc), the **LP, Mag, Southern Belle** and **Goldpan** (Strongbow Exploration Inc), and the **Merit** and **Brookemere** (Williams Creek Exploration Ltd) properties.

About 6 km southeast of the Highland Valley mine, Happy Creek Minerals Ltd drilled for porphyry copper-molybdenum at the **Rateria** property. Hole R07-05 returned an assay of 134.0 m grading 0.16% Cu with an interval of 33 m containing 0.33% Cu. Further south in the Guichon batholith, Dot Resources Ltd undertook

drilling at the **Dot** property and TNR Gold Corp drilled five targets at the **Tyner Lake** property, both in search of copper-molybdenum porphyry mineralization.

The **Prospect Valley** property of Consolidated Spire Ventures Ltd was covered with a spring airborne geophysical program. Located 30 km west of Merritt, some of the better assays from the trenching program yielded intervals such as 32.5 m of 0.82 g/t Au and 5.69 g/t Ag. Drilling is currently underway at the **Discovery South and North Zones** and **Dome Zone**.

Just 1100 m to the north of the former Brenda mine, Bitterroot Resources Ltd drilled the North Brenda property in two campaigns. Hole NB06-01 was drilled only to 60.3 m depth returned an intersection of 28.8 m grading 0.0095% Mo and 0.03% Cu.

At the **Barnes Creek** property, located near the Monashee Pass and 70 km southeast of Vernon, Columbia Yukon Explorations Inc drilled several promising gold-arsenic anomalies at the Holmes Lake gold zone.

Weststar Resources Corp is continuing its exploration at the **Axe** porphyry copper-gold prospect located 20 km north of Princeton. Historic resources total 39.0 million tonnes grading 0.38% Cu (indicated) plus 32 million tonnes of 0.38% Cu (inferred). Much of the drilling is focused on expanding the West Zone and testing the mineralization at depth and for the presence of higher-grade gold-bearing sections. One of the better intersections reported includes 288 m of 0.27% Cu and 0.14 g/t Au in hole A07-06: one of the longest interceptions of mineralization ever reported from the property. North of the Axe property Candorado Operating Company Ltd optioned the **Man/Prime** copper-gold property and completed an IP survey and drilling program. This program yielded encouraging results, such as 120 m of 0.21% Cu and 0.92 g/t Au in hole 694-008. Also, north of the Axe and near Kentucky Lake, Bold Ventures Inc drilled near several historical showings including the Tom Cat, Bunker Hill, Bluey and AR at the **Kentucky Lake** property. East of Kentucky Lake, Victory Resources Corporation drilled the **TOE** property to test copper-zinc-gold MMI soil anomalies where they coincide with previously identified geophysical targets.

Partners Molycor Gold Corp and Goldrea Resources Corp drilled the **Crowrea** and **Empress** molybdenum properties west of Summerland. The Crowrea property has an historical resource of approximately 500 000 tonnes grading 0.19% Mo in the Webb Zone. Significant assays from this program range from 0.15-0.60 m grading between 0.046 to 1% Mo. Jasper Mining Corp proposed a late season drill program at the **Isintok** molybdenum-copper-silver prospect, located southwest of Summerland.

Approximately 12 km south of Princeton and five km south of the Ingerbelle mine, Anglo-Canadian Uranium Corp continued drilling the **Princeton Copper** project for copper-gold-palladium mineralization. At the Friday Creek showing, a late 2006 program intersected 6.08 m of 1.494% Cu in hole DDH-12. A second target called the

Rico zone yielded a 1.5 m chip sample that ran 2.025% Cu and 11.18 g/t Au and was drilled.

### ***Southeast British Columbia - Major Exploration Projects***

On the **Thor** property which is about 7 km northeast of Trout Lake, Taranis Resources Inc completed ground-based geophysical surveys, trenching and drilling focused on a mineralized unit which extends for over 1.4 km. Drill results include an intersection of 5.07% Zn, 4.07% Pb, 0.26% Cu, 1.59 g/t Au and 296.12 g/t Ag over 1.95 m.

Eagle Plains Resources Ltd drilled the **Findlay** project, 25 km west of Canal Flats. As with the Sullivan Deeps project, the target on the Findlay is zinc-lead mineralization in the Aldridge Formation, Purcell Supergroup. In contrast with the Sullivan mine deposit, known mineralization on the Findlay property appears to occur in the upper member of the Aldridge Formation.

Stikine Gold Corporation's **Sullivan Deeps** project completed a third deep drillhole targeting lead-zinc. Massive sulphide mineralization, approximately 8 km north of Kimberley, was collared in 2006. The Sullivan horizon, the stratigraphic position of the Sullivan mine and some other known Sedex occurrences in the East Kootenays, were successfully intersected in all three drillholes (at depths of 2736 m, 2365 m and 2659 m), and in all three cases the horizon was host to sulphide mineralization. Drillhole SD3 intersected 0.4 m of mainly pyrrhotite.

Eagle Plains Resources Ltd, a Cranbrook-based junior company, carried out its third year of diamond drilling on the **Sphinx** molybdenum property 45 km west of Kimberley. Pervasive alteration is developed in the sedimentary and intrusive rocks. An inferred resource of 62 million tonnes grading 0.058% MoS<sub>2</sub>, using a cut-off grade of 0.0167% MoS<sub>2</sub>, was estimated in 2006. The resource is open in two directions and at depth, and is being viewed as a bulk-tonnage target. Highlights of the 2007 drill campaign included 0.142% MoS<sub>2</sub> over 29.0 m, including 0.173% MoS<sub>2</sub> over 19.0 m and 0.469% MoS<sub>2</sub> over 3.0 m.

Elk Valley Coal Corporation exploration expenditures in the East Kootenays totalled over \$6.3 million and the exploration drilling totalled over 52 000 m, not including in-pit drilling. Four of the five mines carried out major exploration programs in 2007, all aimed at establishing reserves outside of the active pits.

Beginning in the south, Coal Mountain Operations continued to assess the potential of the **Wheeler Ridge** area in the Crowsnest Coalfield, roughly 19 km northeast of Fernie. This site is not structurally contiguous with Coal Mountain and is approximately 18 km distant. Elkview Operations carried out rotary-drilling programs in the **Baldy Ridge** and **Natal Ridge** areas, both within their current permitted area.

The other major coal exploration programs were in the Elk Valley coalfield. Line Creek Operations drilled on **Mt. Michael** and the **Saddle** property, approximately 3 km and 6 km, respectively, north along strike from the active mine area. Fording River Operations drilled on both **Castle Mountain** and **Bare Mountain**, 5 and 10 km, respectively, south of and along strike from active pits on Eagle Mountain. Fording River Operations also drilled on the **Greenhills** portion of their property, which is north of and on strike with Elk Valley Coal's Greenhills Operations.

Also in the East Kootenays, the St. Eugene Mining Corporation drilled its **Moyie** property 25 km south of Cranbrook. Drill results in 2007 from the **Society Girl** target area included 4.45% Zn, 8.56% Pb, and 85 g/t Ag over a true width of 3.4 m.

The **Jersey-Emerald** project 10 km south of Salmo was the site of extensive drilling to test the East Emerald tungsten zone, the East Dodger tungsten zone and the Dodger molybdenum zone, as well as extensions to the Jersey zinc-lead deposit. A preliminary scoping study to determine economic parameters for a mining plan (tungsten only) was completed in May. Engineering and environmental-baseline studies are also underway throughout the property. Combined measured and indicated resources of 2.51 million tonnes at 0.37% W (at a 0.15% cut-off grade) in the Emerald mine were calculated in November 2006. Molybdenum-bearing, granitic intrusion-hosted quartz stockworks lie beneath the old tungsten mine workings in the East Dodger mine area. The recently-discovered Dodger molybdenum zone has an inferred resource of 481 000 tonnes at 0.103% MoS<sub>2</sub> (at a 0.05% cut-off grade).

Carbonate-hosted zinc-lead sulphide and oxide mineralization in the Kootenay Arc was also the target for drilling done by the ReMac Zinc Corporation on its **ReMac** project east of Trail. The company's holdings include the past-producing **Reeves-McDonald** and **Annex** mines. Dajin Resources Corp undertook a drilling program on the **Oscar** property. As with the ReMac, both sulphide and oxide forms of carbonate-hosted zinc-lead mineralization occur.

Klondike Silver Corporation continued to progress with its **Sandon** project in the Slocan Silver Camp, 10 km east of New Denver. Work in 2007 focused on rehabilitation of underground workings at the **Wonderful** and **Silvana** mines, underground development, and refurbishing of the Silvana mill. Some ore-grade material was produced and processed at the mill. Ongoing surface geophysical and geochemical surveys continued over portions of the company's Slocan-area holdings.

Drilling on the large **Jumping Josephine** (or **JJ**) property, 22 km west of Castlegar, by Astral Mining Corporation targeted three areas of known gold mineralization: **JJ Main zone** and **Bonanza Pass**, both recent discoveries, and the **Albion-Dubrovnik** area in the Granville Mountain mining camp. The main focus, as in



Photo 19. Drilling at the Remac project east of Trail.

2006, was on the JJ Main zone. Drill assay results in 2007 included 12.44 g/t Au over 8 m, including 26.9 g/t over 3 m.

On the **Yankee-Dundee** property in the Ymir area, 11 km northeast of Salmo, Dundee Mines Ltd is focusing on high-grade gold-quartz veins in the Ymir Group. Its holdings include the past producers **Yankee Girl** and **Dundee**; extensions and components of the vein systems at these locales are being targeted. Drilling results in 2007 included 6.01 g/t Au over 1.54 m (before ending in old workings).

Jasper Mining Corporation carried out soil sampling and diamond drilling on its polymetallic occurrences on the **Erie Creek** project, approximately 12 km northwest of Salmo. Emgold Mining Corporation's **Stewart/Jazz** property, 9 km north of Salmo, is host to molybdenum, tungsten and gold mineralization.

West High Yield (W.H.Y.) Resources Ltd carried out a third major phase of diamond drilling on its **Rossland** gold-nickel-magnesium project on the western outskirts of Rossland. In the same mining camp, Vangold Resources Ltd drilled its **Southbelt** property in 2007.

At the **Carmi** molybdenum property, 11 km northwest of Beaverdell, Hi Ho Silver Resources Inc worked to expand the known mineralized zones and confirm previously-reported grades. Ground-based geophysical surveys and trenching, along with two

diamond-drilling programs, were carried out on the Lake Zone and E Zone. Recent drill results include 139.31 m of 0.128% MoS<sub>2</sub> in drillhole 07-192. On the **GK** property, 11 km east of Beaverdell, Bitterroot Resources Ltd carried out trenching and drilling programs on the Bluejay and Hornet gold zones.

### ***Southwest British Columbia - Major Exploration Projects***

The **Red Bird** project operated by Torch River Resources Ltd is advanced-stage property. Located north of Haven Lake near Tweedsmuir Park, the Red Bird is a molybdenum prospect. An August 2007 updated resource estimate, using a 0.03% Mo cut-off, gave an indicated resource of 43 340 000 tonnes at 0.064% Mo and an inferred resource of 70 480 000 tonnes at 0.058% Mo. The 2007 program consisted of ten diamond-drill holes on the Main Zone Western Extension totalling 2645.95 m of core drilling. Assays indicate potential for an economic rhenium byproduct associated with the molybdenum.

Work on the **Hushamu** deposit resumed in early 2007. Western Copper Corporation completed a 4300 m drill program on the Hushamu Property, focused on the **NW Expo** area north of Rupert Inlet. The 2007 work indicated continuity of separate molybdenum-gold and gold-copper-molybdenum zones. The current NI 43-101 resource includes 230.9 million tonnes of measured and indicated resources at 0.28 % Cu and 0.309 g/t Au at a 0.2% Cu cutoff.

The **Merry Widow** Property encompasses several magnetite past-producers (Merry Widow, Kingfisher and Raven), as well copper, iron, silver and gold mines (Old Sport and Benson Lake). The focus of the 2007 extensive drilling program was a roughly north-trending string of massive sulphide occurrences crossing the sites of historical iron mining. Grande Portage Resources Ltd released a preliminary resource estimate of 950 000 tonnes in the measured and indicated categories averaging 2.03 g/t Au, 5.64 g/t Ag, 0.34% Cu, 0.013% Co and 16.1% Fe. An additional 120 000 tonnes in the inferred category averages 1.2 g/t Au, 2.8 g/t Ag, 0.13% Cu and 0.008 % Co. Calculations use a 0.5 g/t Au cut-off. At the time of writing, a drill program is underway at the **Teihsum River** property on the southwestern flank of Merry Widow Mountain.

**Big Southeaster** gold property of Bitterroot Resources Ltd, located near Port Alberni, was the target of extensive diamond drilling in 2007 with 10 782 m in 38 holes. On the nearby **Mineral Creek** property, Bitterroot Resources Ltd collared a portal on the **Lower Linda** vein. At the time of writing, approximately 200 tonnes of material had been extracted for a bulk sample. One hole in the Mineral Creek fault zone, BTT-BS 9, returned 82 separate intervals of greater than 0.2 g/t Au throughout most of its 243 m length.



Photo 20. Skarn assemblage at Merry Widow zone at outcrop scale; massive chalcopyrite under the hammer.

Compliance Energy Corporation followed a substantial 2006 program at **Raven Coal** located near Comox with a NI 43-101 resource estimate and preliminary economic assessment. The company has recently begun to exercise a purchase option on Comox Basin coal rights, including Raven. In situ high volatile bituminous coal resources are estimated at just over 39 million tonnes measured and indicated and 59 million tonnes inferred.

At the **Lara** property of Laramide Resources Ltd, a review of historical data resulted in a NI 43-101 compliant resource estimate of 1.81 million tonnes (indicated and inferred categories). At a 1% Zn block cut-off the resource is 1 146 700 tonnes in the indicated category averaged 3.01% Zn, 32.97 g/t Ag, 1.05% Cu, 0.58% Pb and 1.97 g/t Au.

The **Okeover (OK)** property of Prophecy Resource Corp is a copper-molybdenum deposit located northeast of Powell River. In total there has been approximately 30 000 m of drilling recorded on the property, with over 2000 m likely to be completed by Prophecy by the end of 2007. A November 2006 NI 43-101 compliant estimate of inferred resource at the **North Lake Zone** is 86.8 million tonnes averaging 0.31% Cu and 0.014% MoS<sub>2</sub> at a Cu cutoff of 0.20%. Recent step out drilling suggests potential to expand this resource to the east. Nearby examples of copper-molybdenum mineralization include **Hi-Mars** and **Don**. The Don was to be subject of drilling by Dentonia Resources Ltd in 2007, but that program required preliminary work before it could proceed.

Carat Exploration Inc completed a significant drill program in 2007 at the **Seneca** property west of Harrison Lake. There were several encouraging intercepts in the program focused on the Weaver Lake area, east of the historic Seneca polymetallic massive sulphide deposit.

In the Harrison Lake area the **Crack Moly** Project of Pacific Cascades Minerals Inc was subject of a 9 hole diamond drill program. The property had not been

previously drilled; four holes intersected molybdenum mineralization; CM07-05 intersected 195.05 m of average 0.053% Mo. The **Salal Creek** molybdenum property saw minor work by Paget Resources Corporation.

There was a detailed magnetometer survey over the **Big Nic** in 2007, followed by 5 short drillholes in this area of limited exposure. Pacific Coast Nickel Corp has acquired claims to the southeast and plans to begin a winter program. Big Nic is located approximately 5 km southwest of Giant Mascot, a past nickel producer.

Imperial Metals Corporation continued drilling at **Giant Copper** this year with two holes testing the **AM Breccia Zone**. Late 2007 work included construction of a camp and two diamond-drill holes totalling 659.6 m, with the program expected to continue in spring. GCS06-01 intersected a 296.7 m interval grading 0.53% Cu, 0.20 g/t Au, 13.44 g/t Ag and 0.027% Mo.

## BRITISH COLUMBIA EXPLORATION AND MINING INITIATIVES

During 2007, the Government of British Columbia continued a number of measures to assist mineral resource planning, exploration and development, including an aggressive program of enhancing the provincial geoscience information available to the public.

The British Columbia Geological Survey has been a important agency for the provincial government for over 112 years. This team of expert geoscientists plays a key role in attracting new investment to British Columbia to sustain and grow the mineral industry.

- Over the past year the B.C. Geological Survey published *Geological Fieldwork 2007, Exploration and Mining in British Columbia 2007, British Columbia Mines and Mineral Exploration Overview*, 10 Open File maps and reports, 1 Geoscience Maps, 11 GeoFile maps, reports and data and 5 Information Circulars. All geoscience publications are routinely posted to the Ministry of Energy, Mines and Petroleum Resources' website at: [www.em.gov.bc.ca/Geology](http://www.em.gov.bc.ca/Geology).
- Staff from the B.C. Geological Survey completed mapping surveys in the Terrace area, Peace River coalfield, east of Quesnel, south of Tweesdmuir park, near 100 Mile House, southwest of Merritt, northern Vancouver Island, and the Boundary district (Figure 8). Several of these programs made significant new mineral discoveries; they all redefined the geology and mineral potential of the survey areas. Economic geology studies were carried out on porphyry copper deposits in the Quesnel Arc and on industrial minerals throughout the province. Local geochemistry surveys were completed to test geological ideas and survey techniques.

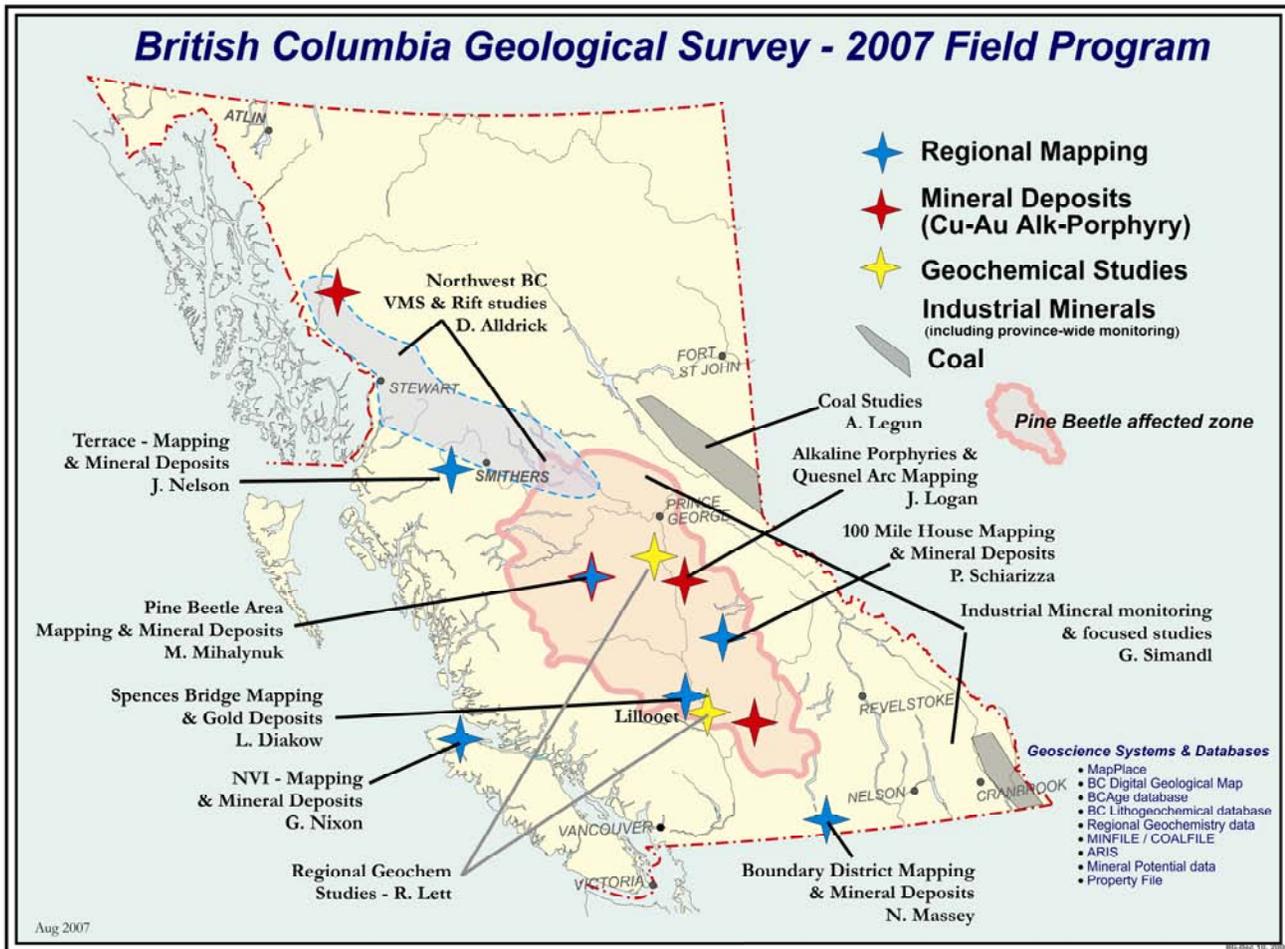


Figure 8. Geoscience survey activity by the B.C. Geological Survey, 2007.

- MapPlace, MINFILE, CoalFile and other databases were upgraded and expanded. They are easily accessible to clients around the world for free: [www.em.gov.bc.ca/geology](http://www.em.gov.bc.ca/geology).
- Clients can now access on line 100% of complete company mineral assessment reports from the ARIS database.
- The B.C. Geological Survey initiated a new program of student and geoscience assistant hiring to assist in carrying out field geoscience projects, office programs and facilitate training of a new generation of geoscientists with experience and interest in the province's future. The B.C. Geological Survey hired and trained over 35 young geologists during 2007 and will complete a similar program in 2008.
- British Columbia is an attractive place to do business due to a competitive tax regime, secure tenure and clearly identified procedures and regulations for exploration, mine development and mining activities. For example the province has tax credit programs for exploration.
- The *British Columbia Mining Exploration Tax Credit Program* provides a 20% refundable tax credit towards B.C. taxes. This program is in place until December 31, 2016. The federal and B.C. Flow Through Shares tax credit programs (*referred to as Super Flow Through Shares*) were extended to December 31, 2008.
- The *Mining Exploration Tax Credit* has been increased to 30% for qualified mineral exploration undertaken in prescribed Mountain Pine Beetle affected areas of the Province.
- The Ministry of Energy, Mines and Petroleum Resources supports the provincial mineral industry by marketing the many opportunities to develop and process the province's coal and mineral resources.
- The Minister of State for Mining led a very successful joint government and industry trade mission to Asia and participated in the China Mining conference to highlight British Columbia opportunities.

- Staff completed marketing projects in Asia, Toronto and Vancouver to attract global mineral industry investment to British Columbia and participated in numerous regional conferences around the province to profile exploration and investment opportunities.
- Numerous offshore trade delegations met with government representatives in Vancouver and Victoria, regarding the acquisition of a variety of projects and their products.

Using funding provided by the B.C. government, Geoscience B.C. sponsored a number of geoscience projects throughout the province. This industry-led, not-for-profit society forged new partnerships with industry and government agencies to complete a wide variety of projects designed to attract mineral and oil and gas investment to British Columbia.

- Geoscience B.C., in June 2007 announced the QUEST project, a new geoscience initiative designed to focus mineral exploration on the Quesnel terrane in central British Columbia. QUEST will include regional geophysical and geochemical surveys, complemented by the compilation of existing geoscience data for the region.
- Geoscience B.C. also released a number of new geoscience maps and reports from across the province. This included high-resolution magnetic data for the Jennings River area, gamma-ray spectrometric and magnetic data for the Bonaparte Lake area, a Skeena Arch metallogenic dataset, several geochemical data products for the interior Plateau and geology maps for the Whitesail Lake area. Details and data are available from their website at: [www.geosciencebc.com](http://www.geosciencebc.com).

## 2008 MINERAL INDUSTRY OUTLOOK

The mineral industry continued to boom in 2007 as shown by the following highlights:

- Mineral tenure acquisitions maintained at near record levels (Figure 9).
- Exploration spending up more than 50% over 2006, to a new record of \$416 million.
- B.C. is estimated to account for about 17% of Canadian mineral exploration investments during 2007.
- Metres drilled up more than 50% over 2006, at 1.254 million metres.
- B.C. based exploration and mining companies raised \$6 billion in risk capital; approximately 37% of the Canadian total.

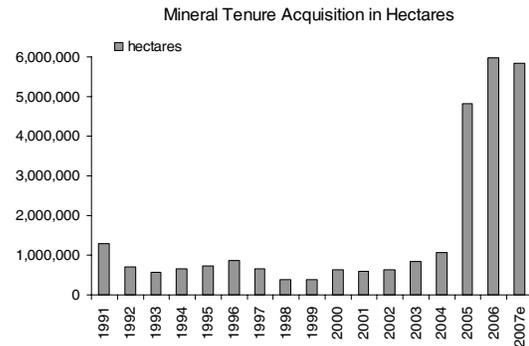


Figure 9. Mineral tenure in hectares 1991-2007.

- More than 20 project submissions have been made by companies to government seeking mine and quarry development.
- Value of solid mineral production steady at \$6 billion.
- Four new mines opened [Brule, Max, Orca, Swamp Point].

When these numbers are considered with the number of significant property acquisitions, it should be a busy 2008 exploration season in British Columbia. Many junior companies with projects in the province are already well funded for the 2008 exploration season. As well, a number of advanced exploration projects are working to complete feasibility studies during 2008. More investment by international companies is expected, particularly for mine development projects. The province has great potential for increased exports to Asia and the important role it can play in the future as Canada's Pacific Gateway.

## ACKNOWLEDGMENTS

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[http://www.em.gov.bc.ca/Mining/Geosurv/Publications/catalog/cat\\_expl.htm](http://www.em.gov.bc.ca/Mining/Geosurv/Publications/catalog/cat_expl.htm).

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Photo 21. Regional geologists touring southern B.C. mineral deposits, 2007.



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