## SUMMARY AND TRENDS

Mineral exploration in the Central Region in 2006 was highlighted by a significant increase in the level of activity over last year. As in recent years, the majority of exploration projects targeted porphyry copper-gold deposits within the Quesnel Terrane and eastern Stikine Terrane. There was also renewed interest in other mineral deposit types in these and other terranes in the Central Region. These included mesothermal veins in the Barkerville and Quesnel terranes, epithermal gold deposits in the Stikine Terrane, porphyry molybdenum+/copper deposits in the Stikine and Cache Creek terranes, and sedimentary-exhalative zinc-lead-silver deposits in the Foreland Terrane. The placer gold sector, while still a 'going concern' in traditional localities within the region, is not covered in this report.

High base metal and precious metal commodity prices underpinned a strong investment climate and enabled many companies to raise abundant capital for exploration, deposit appraisal and mine development. Further evidence of the positive investment climate were the significant number of new option agreements signed, the increase in the amount of mineral tenure acquired, and the number of grassroots or reconnaissance-style projects conducted. The high level of activity exceeded both the capacity of supporting infrastructure, such as assay laboratories and diamond drilling companies, and the available geological and engineering expertise. The result was longer than normal 'turn-around' times for assay results; delay, deferral or cancellation of drilling programs; and frustrated project geologists and company executives.

Exploration expenditures rose for the 7th consecutive year to an estimated \$46.5 million (Figure 4.1), an increase of about \$12 million over the estimate for 2005. The amount of exploration drilling increased to 176 000 metres (Figure 4.2) representing a 20% jump from 2005. In all there were 39 major exploration projects, 14 of which had expenditures of \$1 million or more.

Exploration highlights, in alphabetical order, include:

- assessment of the Akie, Pie and Yuen zinc-lead-silver sedimentary-exhalative properties in the Gataga-Kechika Trough area;
- identification of a strong multi-element stream-silt anomaly, successful follow-up prospecting and staking of a 100-kilometre trend of the Sitlika Assemblage;

- aggressive definition drilling at the Gibraltar site resulting in a large increase to the mine's reserve base;
- discovery of significant alkalic porphyry mineralization at the Kwanika property;
- continued encouraging exploration results from several targets that are part of the Mount Polley alkalic porphyry system;
- initiation of a major underground exploration program on the North zone at the dormant QR gold mine;
- encouraging drill intersections from the Slide occurrence, part of the large JTM alkalic porphyry system;
- a major, systematic drilling program at the Spanish Mountain bulk tonnage gold prospect that confirmed grade and expanded the dimensions of the mineralized area;
- intersections of broad intervals of epithermal vein mineralization at 3Ts that enhance the property's potential, and;
- successful extension of the Megabuck zone at the Woodjam gold-copper prospect.

Three major open pit metal mines, Mount Polley, Gibraltar and Kemess, continue to operate in the region. Each operation enjoyed a very profitable year and conducted significant minesite exploration to evaluate the



Figure 4.1. Annual Exploration Expenditures, Central Region.



Figure 4.2. Annual Exploration Drilling, Central Region.

economics for pit expansion. Estimated production and reserves are provided in Table 4.1.

Reopening of the **QR** gold mine is anticipated for 2007. The project received a Mines Act permit in December, 2006. The Kemess North project is under a joint Federal-Provincial panel review and a decision on the project is expected by mid-2007. The Mt. Milligan project, which had its Environmental Assessment (EA) certificate expire in 2003, is under new management and is in the pre-application phase of the formal EA review process. A small open pit mine was proposed for the Bonanza Ledge zone.

The locations of operating mines, major exploration projects and smaller exploration projects believed to have regional significance are shown on Figure 4.3.

## MINES AND QUARRIES

#### METAL MINES

The **Gibraltar** copper-molybdenum mine (Figure 4.4), owned and operated by Taseko Mines Ltd, is located near McLeese Lake.

Anticipated annual production for 2006, based on reports for the first nine months of the year, is estimated to be 23 000 tonnes (50 million pounds) of copper and more than 360 tonnes (800 000 pounds) of molybdenum. Average mill throughput was approximately 32 000 tonnes per day. The mine directly employs about 270 workers.

The Gibraltar deposits occur within 'Mine Phase' tonalite, part of the Late Triassic Granite Mountain batholith. The batholith intrudes Cache Creek Group rocks between the Pinchi and Fraser River fault systems. Mining is taking place from the stage IV Pollyanna pit, but development of stages III and IV of the Granite Lake pit may be initiated as early as 2007. Development of the Pollyanna-Gibraltar East Connector zone and the 98 Oxide zone are not expected to proceed for several years.

A \$62 million project to upgrade and expand the concentrator commenced in 2006 and is scheduled for completion in early 2008. A semi-autogenous grinding (SAG) mill will be added to the concentrator's grinding circuit to improve the efficiency of the present milling and crushing system. Replacement of the flotation recovery system will result in increased copper and

Mine	Operator	Mine Workforce	Forecast Production (tonnes or kilograms)	Proven and Probable Reserves (effective date)
Metals				
Mount Polley	Imperial Metals Corporation	~280	26 300 t Cu, 1220 kg Au, 14 000 kg Ag	40.98 million tonnes grading 0.448% Cu and 0.318 g/t Au (January 1, 2006)
Gibraltar	Taseko Mines Ltd	~270	23 000 t Cu; 360 t Mo	232.6 million tonnes grading 0.318% Cu and 0.010% Mo (September 30, 2006)
Kemess South	Kemess Mines Ltd (Northgate Minerals Corp)	~450	9600 kg Au, 36 000 t Cu	68.03 million tonnes grading 0.65 g/t Au and 0.21% Cu (December 31, 2005); Kemess North (Probable) 414 million tonnes grading 0.31 g/t Au & 0.16% Cu
Industrial Minerals				
Giscome	Pacific Lime Products Ltd	2 (seasonal)		
Nazko	Lightweight Advanced Volcanic Aggregates	6 (seasonal)		

#### **TABLE 4.1. FORECAST MINE PRODUCTION, CENTRAL REGION, 2006**



Figure 4.3. Operating mines, major exploration projects and selected smaller projects, Central Region, 2006.



Figure 4.4. Mining in the Pollyanna pit, Gibraltar mine.

molybdenum recoveries. Copper and molybdenum production are expected to increase by more than 30%. The site's unit operating costs are expected to decrease by approximately 10% through a combination of increased throughput and improved recoveries of both copper and molybdenum.

The Solvent Extraction-Electrowinning (SX-EW) plant, idle since 1998, was refitted and may begin to produce LME Grade cathode copper by year's end. Oxidized copper ore not suitable, or too low grade for conventional milling, and stockpiled since the mine was re-started in 2004, will be the feedstock for the plant. The plant has the capacity to produce up to 7 million pounds of cathode copper annually.

On the exploration front, Taseko commenced an extensive definition drilling program in areas surrounding some of the existing pits. This work was successful in reclassifying a portion of the 557 million tonne resource to the reserve category and will extend the life of the mine.

The **Mount Polley** copper-gold mine (Figure 4.5) reopened in March, 2005, after being placed on "careand-maintenance" in September, 2001. It is owned by Imperial Metals Corporation. The mine is centered between Bootjack and Polley lakes, near the hamlet of Likely. Production for the first 9 months of 2006 was 18 764 tonnes (41 367 439 pounds) of copper, 886.0 kilograms (28 487 ounces) of gold and 9878 kilograms (317 587 ounces) of silver from the milling of 4.95 million tonnes of ore. Average mill throughput exceeded 18 000 tonnes per day. Ore was mined, and blended prior to milling, from the expanded Bell pit, the new high-grade Wight pit and low grade stockpiles.

The Southeast zone (with a mineable reserve of 2.1 million tonnes grading 0.273% Cu and 0.514 g/t Au) was permitted for development in 2006, but is not expected to reach production until at least late 2007.

The company designed a pilot heap leach test program for 200 000 tonnes of oxidized copper ore from

the upper part of the Springer zone. The test is planned for 2007. If it is determined to be economic, a full-scale program will be considered for the approximately 14 million tonnes of remaining oxidized Springer ore.

Most of the mineralization at Mount Polley occurs within 'crackled' to brecciated monzonite and plagioclase porphyry phases of the Late Triassic Polley stock. The best copper and gold grades are typically associated with zones of intense K-feldspar alteration.

Imperial Metals also continued its exploration efforts on its two mining leases and on its adjacent claims. Evaluation of the Northeast zone (Wight pit area) continues and may result in an expansion of the deposit's resource. Encouraging drill assay results from the C2 and Boundary zones have increased the likelihood for these deposits to become millfeed in the future. A summary of this activity is provided in the *Exploration Highlights* section of this report.

The **Kemess** gold-copper mine (Figure 4.6), located in the Toodoggone region about 300 kilometres northwest of Mackenzie, is owned and operated by Northgate Minerals Corporation. Metal production for first nine months of 2006 totaled 7109 kilograms (228 549 ounces) of gold and 27 195 tonnes (59 954 000 pounds) of copper from milling 13.7 million tonnes of ore. Production for calendar 2006 is expected to reach approximately 9600 kilograms (310 000 oz) of gold and 36 000 tonnes (80 million pounds) of copper.

The 50 000 tonne per day mine has been in operation since 1998 and currently employs approximately 450 workers. Proven reserves at Kemess South as of December 31, 2005, stood at 68.03 million tonnes grading 0.65 g/t Au and 0.21% Cu.

Ore is mined from a single open pit developed on the Kemess South deposit. The deposit occurs within a gently southeast-dipping body of Late Triassic quartz monzonite called the Maple Leaf pluton. The southern margin of the intrusion is in fault contact with fine-grained sedimentary rocks of the Permian Asitka Group. Epiclastic rocks of the



Figure 4.5. Expansion of the Bell pit, Mount Polley mine.



Figure 4.6. Mining of the Kemess South deposit, Kemess mine.

Toodoggone formation unconformably overly the intrusion. Hypogene ore comprises the bulk of the deposit with lesser supergene, leached cap and 'transitional' ore types.

In 2006, a modification of the northwest end of the pit was required to correct structural instability of pit walls. The pushback will generate an additional 22 million tonnes of waste rock, but will also release 420 000 tonnes of ore that will partly offset the overall cost of the program.

A re-assessment of an area immediately east of the Kemess South pit was completed and may outline additional ore reserves. Existing reserves will provide mill feed until early 2009, but the overall mine life of the operation could be extended to 2020 if the Kemess North mine proposal (with a proven and probable mineable reserve of 424 million tonnes grading 0.30 g/t Au and 0.155% Cu) receives approval. The Environmental Impact Assessment report for the Kemess North proposal is undergoing review by a joint Canada-British Columbia panel. The review is expected to wrap-up in mid-2007.

#### **QUARRIES**

Mining operations at the **Nazko** lava rock quarry did not occur in 2006. Owner Crystal Graphite Corporation went into receivership early in the year and the property became the responsibility of receiver PricewaterhouseCoopers. The site was inactive until November when new owner Lightweight Advanced Volcanic Aggregates Ltd was permitted to ship a limited tonnage of previously screened and stockpiled material to customers in the lower mainland. The company hopes to reactivate quarrying of the basalt tephra in the first quarter of 2007.

The other quarries in the region were dormant in 2006. Sufficient ballast remained from the 2005 mining campaign at CN Rail's **Giscome** volcanic rock quarry to supply the company's mainline and spur line maintenance

requirements. The nearby Giscome limestone quarry, now owned by Chemical Lime Company of Canada Inc supplied a limited tonnage of crushed limestone to a local pulp mill. Interestingly, competitor Graymont Western Canada Ltd investigated the potential for limestone on the adjacent **Pat** mineral claims.

Several small industrial mineral entrepreneurs quarried small tonnages of a variety of stone products for marketing purposes. Perhaps the most interesting material is an occurrence of attractive fossiliferous limy shale that was investigated by David **Simonar** in the Pine Pass.

# **EXPLORATION HIGHLIGHTS**

Major 2006 exploration projects in the Central Region are listed in Table 4.2. The following information was compiled prior to the end of the calendar year and is incomplete. Many projects were active well into December and/or operators had not received results from their work conducted earlier in the year. Estimates for work completed are used in some cases.

## Toodoggone-Kemess Area

Northgate Minerals Corporation continued to explore its large tenure package that encompasses the Kemess mine. Most of the drilling was focused east of the **Kemess North** deposit and targeted the deep **KN Offset** and **Kemess East** zones. Drilling of the KN Offset zone, located immediately east of the East Boundary fault, followed up on a 2005 intersection in hole KN-05-24 that averaged 0.31 g/t Au and 0.24 % Cu over 307.6 metres. The Kemess East zone is essentially a continuation of KN Offset.

A deep-penetrating IP geophysical (Titan) survey was performed over the Kemess North deposit and surrounding areas. Post-mineral volcanic rocks of the Jurassic Hazelton Group mask the Triassic Takla Group and the late Triassic intrusions that generated the mineral deposits in the area. Sub-vertical faulting appears to have shifted structural blocks up to the east suggesting that the barren cover is thinner and targets may be closer to surface. The survey outlined the known mineralized zones and identified several new targets, including an intriguing buried target east of KN Offset.

A late season infill drilling program was completed immediately east of the **Kemess South** pit in an attempt to add tonnage to the mine's reserve base and extend the life of the mine. The drilling confirmed continuity of mineralization and an economic evaluation to upgrade the resource was initiated.

The Atlas East epithermal gold-silver prospect (Figure 4.7) on the **Pil** property, centered approximately 35 kilometres north of the Kemess mine, was the primary target of the Finlay Minerals Ltd 2006 exploration

# TABLE 4.2. MAJOR EXPLORATION PROJECTS, CENTRAL REGION, 2006

Property	Operator	MINFILE	Commodity	Deposit Type	Work Program
		(NTS)	<b>,</b>		
Akie	Mantle Resources	094F 031	Zn-Pb-Ag	Sedimentary- Exhalative	G; GC; DD (4881m)
Albert's Hump (Ranch)	Guardsmen Resources Inc	094E 079	Au	Epithermal Vein	G; GC; DD (645m)
Cariboo Gold Quartz (incl. Bonanza Ledge, Mucho Oro)	International Wayside Gold Mines Ltd	093H 019	Au	Replacement, Mesothermal Vein	A; G; TR; DD (~4500 m); GT PF; EN
Chu	TTM Resources Ltd	093F 001	Мо	Calc-Alkalic Porphyry	A; G; GC; DD
Chappelle (Baker mine area)	Sable Resources Ltd	094E 026	Au-Ag	Epithermal Vein	DD (1372 m)
Copper Ace South	Copper Ridge Explorations Inc	093B 061, 062	Cu-Mo	Calc-Alkalic Porphyry	G; DD (801 m)
Davidson	Silver Quest Resources Ltd	093F 037	Au-Ag	Epithermal Vein	G; DD (353 m)
Fran	Yankee Hat Minerals Ltd	093N 207	Au-Cu	Alkalic Porphyry	A; G; GC; GP; DD (2060 m)
Frank Creek, SCR, Ace	Barker Minerals Ltd	093A 142, 143, 153	Cu-Zn-Pb-Au- Ag	VMS; Mesothermal Vein	A; G; GC; TR; DD (2037 m)
Gibraltar	Taseko Mines Ltd	093B 005- 008, 011- 013	Cu-Mo	Calc-Alkalic Porphyry	G; GC; DD (~26 000 m)
Hen	Swift Resources Inc	093A 048	Au	Mesothermal Vein	G; GC; TR
Hepburn Lake	Acrex Ventures Ltd	-	Au	Mesothermal Vein	A; G; GC; DD (1958 m)
JTM (Misty, Slide)	Teck Cominco Limited	093N 001	Cu-Au	Alkalic Porphyry	G; GC; DD (3070 m)
KN Offset / Kemess East	Northgate Minerals Corporation	094E 021	Au-Cu	Porphyry	A; G; GC; IP; DD (8632 m)
Kemess South	Northgate Minerals Corporation	094E 094	Au-Cu	Porphyry	DD (2936 m)
Kliyul	Geoinformatics Exploration Inc	094D 023	Cu-Au	Porphyry	G; GC; DD (751 m)
Kwanika	Serengeti Resources Inc	093N 018, 073	Cu-Au	Alkalic Porphyry	G; GC; IP; DD (1889 m)
Lawyers	Bishop Gold Inc	094E 068	Au-Ag	Epithermal vein	G; GC; DD (645m)
Lloyd-Nordik	Valley High Ventures Ltd	093A 160	Cu-Au	Alkalic Porphyry	G; GC; IP; MAG; DD (~5600 m)
Lorraine-Jajay	Teck Cominco Limited	093N 002, 066, 224	Cu-Au	Alkalic Porphyry	A; G; GC; DD (2606 m)
Lustdust	Alpha Gold Corp	093N 009, 008	Au-Ag-Cu-Zn- Pb	Skarn; Manto; Mesothermal Vein	A; G; GC; TR; DD (6287 m); RC (3196 m)
Mount Polley	Imperial Metals Corporation	093A 008, 093A 164	Cu-Au-Ag	Alkalic Porphyry	G, GC, TR; DD (~23 000 m); PF; FS

#### TABLE 4.2. CONTINUED

Property	Operator	MINFILE (NTS)	Commodity	Deposit Type	Work Program
Lustdust	Alpha Gold Corp	093N 009, 008	Au-Ag-Cu-Zn- Pb	Skarn; Manto; Mesothermal Vein	A; G; GC; TR; DD (6287 m); RC (3196 m)
Mount Polley	Imperial Metals Corporation	093A 008, 093A 164	Cu-Au-Ag	Alkalic Porphyry	G, GC, TR; DD (~23 000 m); PF; FS
Mouse Mountain	Richfield Ventures Corp	093G 003	Cu-Au	Alkalic Porphyry	G; GC; 3D IP; TR
Mt. Milligan	Terrane Metals Corp	093N 191, 194	Au-Cu	Alkalic Porphyry	G; DD (~8500 m); MT; FS
Nithi Mountain	Leeward Capital Corp	093F 006- 016	Мо	Calc-Alkalic Porphyry	A; G; GC; DD (3275 m)
Pat (Giscome)	Graymont Western Canada Ltd	093J 025	Limestone	Sedimentary	A; G; GC; DD (~2400 m)
Pie	Ecstall Mining Corp	094F 023	Zn-Pb-Ag	Sedimentary- Exhalative	G; GC; DD (4263 m)
Pil	Finlay Minerals Ltd	094E 029, 083, 213,	Au-Cu	Porphyry	A; G; GC; TR; DD (1945 m)
QCM	Canadian Gold Hunter Corp	216 093N 200	Au	Mesothermal Vein	IP; EM; MG; DD (1529 m)
QR	Cross Lake Minerals Ltd	093A 121	Au	Skarn	A; UG; G;
Redton	Geoinformatics Exploration Inc	093N 067, 082, 095	Cu-Au	Alkalic Porphyry	G; GC; GP; DD (4032 m)
Shasta	Sable Resources Ltd	094E 050	Au-Ag	Epithermal Vein	DD (1511 m)
Spanish Mountain	Skygold Ventures Ltd / Wildrose Resources Ltd	093A 043	Au	Mesothermal Vein	A; G; GC; AB-EM, MAG; RC (5040 m); DD (21 846 m)
Tchentlo	Serengeti Resources Inc	-	Cu-Au	Alkalic Porphyry	G; IP; DD (213 m)
3Ts	Silver Quest Resources Ltd	093F 055, 068	Au-Ag	Epithermal vein	G; DD (~4000 m)
Wasi Creek	Selkirk Metals	094C 024	Zn-Pb-Ag	Mississippi-Valley Type	A; G; GC; DD (~1000 m)
Westport	Williams Creek Explorations Ltd	093H 027, 034	Au	Mesothermal Vein	A; G; GC; DD (~2000 m)
Woodjam	Fjordland Exploration Inc / Wildrose Resources Ltd	093A 078, 124	Au-Cu	Calc-Alkalic Porphyry	A; G; GC; DD (8172 m)
Yuen	Ecstall Mining Corp	094F 013	Zn-Pb-Ag	Sedimentary- Exhalative	G; DD (847 m)

Work Program Abbreviations:

A = access; trail, road construction on claims; AB-EM = airborne electromagnetics; AB-MG = airborne magnetics; AB-RD = airborne radiometrics; BU (X tonnes) = bulk sample (weight in tonnes if known); CD = condemnation drilling; CQ = coal quality testing; CT = carbonization test (coal); DD (Xm) = diamond drilling totaling X metres; EN = environmental baseline studies/monitoring, remediation work; FS = feasibility studies; G = geology, mapping, etc; GC = geochemical sampling (rock, soil, silt, etc); GD = geotech drilling; GP = geophysics (general); IP = Induced Polarization; 3D-IP; MG = magnetics; MK = marketing-primarily for industrial mineral products; MS = metallurgical studies; OB = overburden drilling; OP-BU = open-pit bulk sample; P = prospecting; PD = percussion drilling; PF = pre-feasibility studies; R = reclamation; RC = reverse circulatetion drilling; TR = trenching, UG (X m) = X metres of underground development; UG-BU = underground bulk sample; UT = UTEM; VLF; WT = washability test (coal)



Figure 4.7. Drilling the Atlas East epithermal gold-silver prospect, Pil property.

campaign. The property is underlain predominantly by monzonite and quartz monzonite phases of the Black Lake Intrusive Suite and andesitic volcanic rocks of the Toodoggone formation. Drilling at Atlas East intersected narrow quartz-pyrite breccias, quartz veins with visible gold and/or electrum, and bands of silicification within broad zones of intensely clay-altered andesite. Hole A06-12 intersected 5.95 metres grading 2.12 g/t Au and 113.5 g/t Ag, including a 1.05-metre section that assayed 9.18 g/t Au and 361.2 g/t Ag. Two other zones, the nearby Atlas West epithermal gold-silver showing ("Serem trenches") and the Northwest porphyry copper-gold zone, were each tested with two drillholes.

Sable Resources Ltd completed a 20-hole diamond drilling program on its **Shasta** epithermal gold-silver deposit east of Black Lake. The work confirmed the presence of potentially economic grades of gold-silver mineralization in the quartz-calcite-sulphide vein system and extension of the existing underground workings to access the ore has been proposed. The company plans to commence development early in 2007 and will utilize its nearby 100 tonne per day mill and tailings facilities on the Baker minesite. Sable also drilled a deep core hole to test its Black Gossan porphyry copper-gold prospect, on the **Chappelle** claims, and drilled seven core holes to investigate epithermal gold-silver mineralization on the Ridge zone near the **Baker** mine site.

Stealth Minerals Ltd conducted an Induced Polarization survey on its **Sofia** property immediately south of the Toodoggone River and outlined a broad chargeability zone that is centered on the Sofia porphyry copper-gold showing discovered by the company in 2004. Elsewhere in the Toodoggone region, Stealth completed geochemical sampling programs on its **Regal**, **Mac**, **FogMess** and **Louis** properties.

Sister company Cascadero Copper Corp completed a modest prospecting, mapping and geochemical sampling program on is **Pine** porphyry copper-gold prospect that straddles the Finlay River north of the Kemess mine.

Bishop Gold Inc completed five diamond drillholes west of the former Cliff Creek portal on its **Lawyers** epithermal gold-silver property located just south of the Toodoggone River. Multiple zones of silicification, brecciation and quartz veining, ranging from 2 to 16 metres in width, were intersected. The highest grades encountered were in hole 10-CC-06 which intersected 4.4 metres averaging 3.45 g/t Au and 81.1 g/t Ag and 14.0 metres averaging 1.18 g/t Au and 2.37 g/t Ag.

Further north, Guardsmen Resources Inc conducted a modest diamond drilling program on its **Al (Ranch)** epithermal gold-silver property. The program was designed to examine the bulk tonnage gold potential of the Thesis III zone where previous workers had discovered bonanza gold grades in quartz-barite stringers.

Starfire Minerals Inc completed about 50 linekilometres of IP and magnetic geophysical surveying on its **Porphyry Pearl** bulk tonnage copper-gold property located north of the Toodoggone River.

### Gataga – Kechika Trough

In the Gataga area north of Williston Lake, several major exploration programs targeted sedimentaryexhalative (sedex) zinc-lead-silver mineralization within shales of the prospective middle to late Devonian Gunsteel Formation.

Mantle Resources Inc drilled the **Akie** deposit focusing on the Cardiac Creek zone where mineralization is thicker and grades are typically higher. Earlier workers traced the northwest-trending, steep southwest dipping stratabound zone for 1600 metres along strike and for more than 800 metres down dip. The mineralized horizon is up to 30 metres thick and consists of finely laminated sphalerite, galena and pyrite within a thicker zone of pyrite and barite (Figure 4.8). Seven of the eleven holes completed by Mantle in 2006 pierced the mineralized horizon, including hole A-06-39A which intersected 18.1 metres averaging 8.16% Zn, 1.58% Pb and 13.9 g/t Ag.



Figure 4.8. Laminated zinc-lead-silver sedex mineralization, Akie deposit.

The primary objective of the 2007 program will be to acquire a sufficient density of data to support the calculation of a NI 43-101 compliant resource estimate for the deposit.

Ten kilometres along trend to the northwest, Ecstall Mining Corporation identified a new sedex system on its Pie property. Hole P-06-07 cored multiple beds of nodular barite-pyrite and laminated pyrite within a 180metre section of Gunsteel shale. The mineralized beds ranged up to 10 metres thick. Several more holes pierced the mineralized interval outlining a zone with a minimum strike length of 400 metres and down dip length of at least 500 metres. The mineralization is consistent with the distal component of a sedex deposit. On the Yuen property, 30 kilometres further northwest, and immediately northwest of the dormant Cirque sedex deposit, two deep stratigraphic holes intersected a thick section of Gunsteel shale that is interpreted to be part of a sub-basin. Ecstall plans to continue drilling each property in 2007.

### **Omineca** Mountains

Teck Cominco Limited evaluated a number of targets on its **Lorraine-Jajay** and **JTM** (Jan, Tam and Misty) alkalic porphyry copper-gold properties centered northwest of Germansen Landing in the Swannell Ranges. The properties cover prospective geology of the Duckling Creek Syenite Complex and mineralization is typically comprised of disseminated chalcopyrite and lesser bornite in syenitic and biotite pyroxenite phases. The company completed seven drillholes on the Lorraine property. Drilling took place in an area southwest of the Main/Weber zone, in the south Lorraine Ridge, on Copper Peak and in Bishop Bowl. Each hole was successful in intersecting copper mineralization. At Copper Peak, hole L-06-111 intersected 15.2 metres averaging 0.41% Cu.

At JTM, IP geophysical surveys were completed over the Misty Main, Boundary and Slide zones. Diamond drilling tested a 3.5-kilometre IP chargeability anomaly that coincides with the Misty MINFILE occurrence and areas previously explored by several companies, including UMEX, in the 1970s. Four of the six holes drilled encountered mineralization within a sub-vertical body of intensely altered and foliated host rock. The longest mineralized interval was in hole JTM-06-02 which intersected 105.1 metres averaging 0.13% Cu. Two of four holes drilled to investigate the Slide IP chargeability anomaly, and near the Slide showing (Figure 4.9), intersected well-mineralized zones including a 55.5-metre interval in hole JTM-06-07 which averaged 0.72% Cu and 0.07 g/t Au.

To the east, Selkirk Metals Corporation drilled the Par and Carrie zinc-lead-silver horizons on its **Wasi Creek** Mississippi-Valley-Type property.



Figure 4.9. Examining mineralization from the Slide showing, JTM property.

Lorne and Chris Warren conducted limited programs on several targets in the Omineca Mountains including the Jimmay mesothermal vein prospect, the Pen and Leggat porphyry copper showings, and the **Diver Lake** (Bodine, Vent, Crystal and Eureka showings) volcanogenic massive sulphide (VMS) property. Late in the year, the latter property was optioned to Amarc Resources Inc. The showings are underlain by metasedimentary and metamorphic rocks of the Sitlika Assemblage, rocks equivalent to those that host the Kutcho Creek VMS deposits located 100 kilometres east of Dease Lake. Limited fieldwork confirmed the presence of a strong multi-element stream-silt anomaly, identified prospective quartz-bearing felsic volcanic rocks and located brecciated and layered sulphide mineralization. As a result, Amarc staked more than a 100-kilometre strike length of Sitlika stratigraphy and plan to aggressively explore the tenure in 2007.

Alpha Gold Corp continued to evaluate the auriferous Canyon Creek copper skarn zone on its Lustdust property north of Tsayta Lake located about 210 kilometres northnorthwest of Prince George. The property is immediately west of the Pinchi fault zone and is underlain by deformed oceanic rocks of the Cache Creek Terrane. The Eocene Glover stock, an elongate body of monzonite and a series of related feldspar megacrystic dikes and sills, is genetically and spatially related to mineralization. Diamond drilling extended the sinuous geometry of the skarn system both down-dip and to the south. One highlight of the 30-hole program was a 13.8-metre intersection in hole LD06-18 that graded 1.98 g/t Au, 46.9 g/t Ag and 2.17% Cu. Trenching of a gold soil anomaly southeast of the Canyon Creek zone discovered the GD zone, a hematite-rich band with remnant sulphides that is similar in character to manto mineralization identified elsewhere on the property. A 10.3-metre chip sample across the zone graded 2.5 g/t Au, 26.4 g/t Ag and 2.11% Zn. The company also completed a reverse circulation drilling program in an area surrounding the historic Bralorne-Takla mercury mine to evaluate gold soil anomalies outlined in 2005.

Serengeti Resources Inc identified a new alkalic porphyry copper-gold occurrence on its Kwanika property located adjacent to the Pinchi fault system east of Tsayta Lake. Drilling and IP geophysical surveys were conducted on the northern part of the property in an area where previous workers reported a 'geological resource' of approximately 32 million tonnes averaging 0.2% Cu. An initial 5-hole drill program tested the central part of the resource area as well as other targets on the property. Three kilometres north of the resource area, hole K-06-04 intersected an 18.3 metre interval of potassically altered andesite grading 0.32% Cu and 0.152 g/t Au. A followup deep-penetrating IP geophysical survey outlined a chargeability anomaly associated with this new mineralized zone. The anomaly measures more than 1750 metres by 500 to 750 metres and is interpreted to extend to a depth of more than 250 metres. A second 5-hole drill program evaluated the new target and hole K-06-09 (located 250 metres south of hole K-06-04) intersected visually impressive copper mineralization over a 131metre interval. The upper 33-metre interval displays native copper in a hematitic breccia, the middle 3-metre section contains supergene chalcocite and the lower 89metre interval comprises hypogene mineralization consisting primarily of disseminated and stringer pyrite and chalcopyrite in a strongly altered monzonite. The company is planning a winter drilling program to followup on their discovery.

Serengeti Resources Inc also completed a helicoptersupported, 3-hole diamond drill program on its **Tchentlo** porphyry copper-gold prospect, located immediately south of Tchentlo Lake. Drilling encountered a maficdominated sequence including numerous gabbroic rocks with abundant magnetite. Copper and gold values were weakly anomalous.

Over the winter of 2005-2006, Geoinformatics Exploration Inc completed an exhaustive data compilation, interpretation and modelling program of its mineral properties in the Omineca Mountains. The enormous Redton property, which extends northward from Tchentlo Lake, covers a large tract of the Quesnel Terrane geology prospective for bulk-tonnage porphyry copper-gold deposits. The work identified numerous areas requiring follow-up. The 2006 fieldwork campaign included regional silt sampling to augment existing Regional Geochemical Stream Sediment data for the area, bedrock mapping and diamond drilling of select targets (i.e. the Red, Tak and Rainbow zones). Assay results from drilling of the Red showing (Figure 4.10) include a 167-metre intersection of disseminated, fracturecontrolled and stockwork mineralization in a variablyaltered 'crowded porphyry' grading 0.31% Cu. Drilling of the Tak and Rainbow zones intersected propylitic alteration accompanied by sparse amounts of copper mineralization.

Geoinformatics Exploration also completed a modest drill program on its **Kliyul** porphyry copper-gold prospect further north. Hole KL06-30 intersected 221.8 metres of



Figure 4.10. Examining core from the Red prospect, Redton property.

propylitically altered fragmental basalt (Takla Group) averaging 0.20% Cu and 0.51 g/t Au. The company also added to its land position in the belt by acquiring the nearby **Mesilinka** project.

The **QCM** bulk tonnage gold property, near the village of Manson Creek, was evaluated by Canadian Gold Hunter Corp. The property covers a succession of pervasively carbonate-altered wackes and tuffaceous sedimentary rocks of the Slate Creek Succession (Takla Group). The altered rocks contain up to 10% cubic pyrite and are cut by a network of narrow quartz stringers. The 2006 program was designed to expand upon drill results from 2004 and 2005 programs, including a 141-metre intersection that averaged 0.78 g/t Au. Approximately 1500 metres of core drilling in 8 holes were completed.

#### Northern Nechako Plateau

Terrane Metals Corp, new owner of the **Mt. Milligan** property located northeast of Fort St. James, started preparing for a full feasibility study and for Environmental Assessment reporting requirements. The company completed an HQ core drilling program (Figure 4.11) to recover fresh rock from the MBX deposit for metallurgical testing. The Mt. Milligan alkalic porphyry gold-copper property has a measured and indicated mineral resource totaling 205.9 million tonnes grading 0.247% Cu and 0.6 g/t Au. Inferred resources are 16.3 million tonnes averaging 0.207% Cu and 0.5 g/t Au.

The closely-spaced MBX and Southern Star deposits comprise the Mt. Milligan resource. The deposits are primarily hosted in potassically-altered volcanic and volcaniclastic rocks of the Triassic Takla Group on the margin of small Early Jurassic monzonitic stocks, which can also be well mineralized. The MBX deposit is the main copper-gold zone and is situated along the footwall of the west-dipping MBX stock and along the Rainbow dike. The Southern Star deposit is hosted in the Southern



Figure 4.11. Large diameter core drilling of the MBX deposit, Mt. Milligan property.

Star stock and adjacent Witch Lake formation. Hypogene mineralization consists of chalcopyrite and lesser bornite and magnetite in areas of potassic alteration within a widespread propylitic alteration envelope. The 66 zone, immediately south of MBX, is a gold-only deposit that is not part of the property's resource. The WBX zone is a copper-gold deposit that lies along the western margin, or hangingwall, of the MBX stock. The DWBX copper-gold zone is displaced vertically downward along the Harris Fault.

The intent of a second phase of drilling, to be completed through the winter of 2006-2007, will be to convert inferred resources, principally in the WBX and DWBX zones, into the measured and indicated categories.

The North Contact gold zone on the Fran property, just north of Inzana Lake, was the subject of a major exploration program by Yankee Hat Minerals Ltd. Closely spaced trenching and drilling identified the North Contact zone over an 800-metre northwesterly trending strike length. Mineralization is spatially associated with the contact between a porphyritic monzodiorite of suspected Early Jurassic age. and hornfelsed volcaniclastic and sedimentary rocks of the Takla Group. The zone consists of narrow, quartz-pyrite-pyrrhotitechalcopyrite vein mineralization enveloped by broad zones of lower grade material. For example, hole FR-59 intersected 4.85 metres grading 10.96 g/t Au, 40.15 g/t Ag and 1.48% Cu within a 54.6-metre interval averaging 1.18 g/t Au. Drilling of the zone is expected to resume early in 2007.

#### Southern Nechako Plateau

Leeward Capital Corp drilled the **Nithi Mountain** molybdenum property just 18 kilometres east, and within view, of the operating Endako molybdenum mine. The 2006 program built on results from 2005 drilling of the Alpha Trend, a 4-kilometre long east-northeast corridor. Molybdenite occurs in fractures and in ribboned quartz veins within argillically and potassically altered quartz monzonite (Nithi Mountain phase) of the Late Jurassic to Early Cretaceous Francois Lake Plutonic Suite. The most promising drill results came from the western part of the Gamma zone where hole N-06-7 intersected 76.2 metres averaging 0.10% MoS<sub>2</sub>. A second phase of diamond drilling commenced in mid-December and will evaluate the Gamma, West Gamma and Caledonia zones.

In mid-December, TTM Resources Inc initiated a 5000-metre diamond drilling program on the Chu molybdenum porphyry prospect near Chutanli Lake south of Vanderhoof.

In the southern Nechako Plateau, Silver Quest Resources Ltd explored several epithermal gold-silver prospects including Davidson and 3Ts.

At the **Davidson** property, 120 kilometres south of Vanderhoof, Silver Quest drilled two core holes that expanded on last year's discovery of a new gold zone (hole DAV-05-02 intersected 64 metres averaging 1.80 g/t Au and 6.5 g/t Ag). Hole DAV-06-06 intersected 8.0 metres grading 10.7 g/t Au, 42.8 g/t Ag and 0.12% Cu within a 26.0 metre interval that averaged 3.98 g/t Au, 19.0 g/t Ag and 0.10% Cu. Mineralization is structurally controlled to disseminated, consisting of pyrite and variable amounts of pyrrhotite, chalcopyrite, sphalerite and galena, in strongly altered felsic volcanic rocks of the Early Jurassic Hazelton Group.

The **3Ts** property, about 20 kilometres further south, covers a northerly-trending, low sulphidation epithermal gold-silver quartz vein system. Multiple quartz-carbonate veins occur in welded rhyolite flows of the Early Jurassic Naglico formation. A flat-lying Late Cretaceous microdiorite sill cuts the veins. Previous work established a National Instrument 43-101 compliant resource for two discrete veins above the sill. A resource of 552 500 tonnes grading 6.82 g/t Au and 60.9 g/t Ag was calculated for an 800-metre length of the Upper Tommy vein and a resource of 273 800 tonnes grading 2.0 g/t Au and 133 g/t Ag was calculated for a 350-metre length of the Upper Ted vein.

Diamond drilling early in 2006 tested the Lower Ted vein and intersected a 30.9-metre section (17.2-metre true width) of quartz-carbonate veining that averaged 2.68 g/t Au and 152.1 g/t Ag. Late in the year, additional holes successfully intersected the Lower Ted vein over core lengths of more than 25 metres. The company hopes to have acquired sufficient data for the Lower Ted vein to support the determination of an NI 43-101compliant resource estimate.

#### Prince George and Mackenzie Areas

Northeast of Mackenzie, Wealth Management completed a second phase of grassroots exploration on its large **Mackenzie** gold property.

Graymont Western Canada Ltd completed two phases of diamond drilling for limestone on its **Pat** claims northeast of Prince George. The tenure is adjacent to Chemical Lime's dormant **Giscome** limestone quarry near Eaglet Lake. Over the winter Graymont will analyze the quality of the limestone sampled to determine its next course of action.

### Quesnel and Wells-Barkerville Areas

An extensive trenching program by Richfield Ventures Corp on its **Mouse Mountain** alkalic porphyry prospect, northeast of Quesnel, exposed the Rainbow zone over a north-northwest strike length of approximately 350 metres (Figure 4.12). Mineralization consists of disseminated and fracture-controlled chalcopyrite and pyrite with prominent malachite and azurite in zones of weak to moderate potassic and silicaaltered Nicola volcanic rocks. Selected grab samples assayed up to 1.3% Cu and 1.8 g/t Au. An 85 line-kilometre 3D IP geophysical survey was completed over part of the property and identified deep chargeability anomalies on the northwest flank of Mouse Mountain and east of a magnetic high.

In the Wells-Barkerville gold belt, International Wayside Gold Mines Ltd conducted pre-feasibility studies of the Bonanza Ledge gold deposit on its Cariboo Gold Quartz property. The Bonanza Ledge mineralized zone is up to 30 metres across and occurs within an overturned, northeast dipping sequence of metamorphosed turbidites, carbonates and tuffaceous rocks of the Paleozoic Snowshoe Group. Mineralization consists of numerous semi-massive to massive bands of fine to medium-grained pyrite that has preferentially replaced carbonate layers within tan-coloured phyllite. Previous underground development of the deposit in 2003 and 2004 yielded a 10 000 tonne bulk sample that was trucked to the Mount Polley concentrator for processing. In 2006, the company prepared a report that outlines its plans to mine, by open pit methods, approximately 250 000 tonnes of replacement and vein mineralization with an average grade of 7.3 g/t gold.

The company's exploration efforts focused on the **Mucho Oro** gold zone centered a few hundred metres southeast, and along trend, from the Bonanza Ledge zone. The geological setting is identical to that of Bonanza Ledge, but pyrite is much less ubiquitous and does not necessarily correlate with higher gold grades. More than 30 core holes tested the zone; the most promising assay results were from the Mucho Oro Zone #4 and include a 2.9 metre intersection in hole BC06-11 that graded 32.1 g/t Au.

Williams Creek Explorations Ltd drilled 10 holes on the **Westport** mesothermal vein property near Barkerville. Most of the holes tested the projection of the Mucho Oro gold zone that underlies the International Wayside tenure.



Figure 4.12. Trenching of the Rainbow zone near Mouse Mountain (photograph courtesy of Dirk Templeman-Kluit).

The program was completed late in the year and analyses were not available at press time.

### Likely – Horsefly Area

In the central Cariboo, Imperial Metals Corporation continued to evaluate a number of alkalic porphyry copper-gold targets close to its operating Mount Polley mine. The C2 zone was identified by drilling in the year 2000, but was not economic at the time because of low metal prices. In 2006, the C2 zone (including the higher grade Wagon Wheel magnetite breccia body), was further evaluated by trenching and 58 diamond-drill holes. It is located immediately south of the mined-out Cariboo pit and is only a few hundred metres from the mill's primary crusher. The tabular zone is hosted in variably potassically altered monzonite. It measures approximately 400 metres by 200 metres, strikes west-southwest, and is inclined steeply to the south. The previously reported measured and indicated resource for the C2 zone is 5.89 million tonnes grading 0.236% Cu and 0.304 g/t Au. Because of the zones proximity to the crusher and the need for additional material to blend with the high grade Wight pit ore, the C2 zone will likely be developed in 2007.

The **Boundary** zone (formerly known as the Lloyd-Nordik zone) occurs west of the Wight pit and was tested with 22 bore holes. The steeply inclined, tabular zone trends westerly onto tenure held by Valley High Ventures Ltd. Mineralization consists of a chalcopyrite and magnetite-bearing hydrothermally brecciated monzonite within potassically altered Upper Triassic to Lower Jurassic Nicola Group andesite (Figure 4.13). Highlight intersections from Imperial Metals 2006 program include a 34.8 metre intersection in hole ND06-06 averaging 0.98% Cu and 1.12 g/t Au and a 52.1 metre intersection in hole ND06-08 grading 0.49% Cu and 0.54 g/t Au.

Other targets that the company investigated by drilling in 2006 include Ace, Bell pit, Junction, Springer,



Figure 4.13. Mineralized core from the Boundary zone, north of Mount Polley.

Southeast and Tall Fir. Results from limited drilling near the Bell pit, including a 113.2 metre intersection in vertical hole BD06-04 that graded 0.32% Cu and 0.59 g/t Au, suggests that pit expansion is a possibility. Trenching of the enigmatic Pond skarn zone was also conducted.

Valley High Ventures Ltd conducted a large diamond drilling program on its **Lloyd-Nordik** property immediately north of Mount Polley. The company focused on the Boundary zone that extends from tenure owned by Imperial Metals to the Lloyd 2 claim owned by Valley High Ventures. The best intersection of the program was a 21-metre interval in hole L06-07 that graded 2.01% Cu and 0.68 g/t Au. Drilling west of the Boundary zone encountered interesting chalcopyrite-bornite mineralization lacking magnetite that will be further evaluated. A coincident chargeability high and magnetic anomaly in a physiographic low is a future drill target.

Valley High Ventures also completed a 30 linekilometre IP geophysical survey on its **October-Dome** property. The tenure covers part of the historic Bullion pit and work there identified a copper-bearing monzonite sill.

Autry Combs completed a modest trenching program on the **Miracle** copper-gold prospect 10 kilometres west of Mount Polley.

Cross Lake Minerals Ltd collared a portal (Figure 4.14) and commenced drifting towards North zone mineralization at its dormant **QR** gold mine, located just north of the Quesnel River. The mine was previously owned and operated by Kinross Gold Corp. A total of 3733 kilograms (120 030 ounces) of gold was produced from the Main, West and Midwest zones between 1995 and 1998. The current measured and indicated resource contained in the Northwest, West and Midwest zones totals a calculated 670 500 tonnes grading 4.9 g/t Au (NI 43-101 compliant).



Figure 4.14. Development of the North zone portal, QR gold mine (photograph courtesy of Jim Miller-Tait).

Mineralization at QR occurs in propylitically altered basaltic fragmental rocks, and in lesser siltstones, of the Late Triassic Nicola Group peripheral to an Early Jurassic diorite stock. Cross Lake has started a major underground exploration program focusing on the undeveloped North zone, a faulted deeper extension of the previously mined Main zone. Previous diamond drilling intersected the North zone over a strike length of more than 1000 metres, and at depths of between 300 and 450 metres. The planned 600 to 700 metre decline and cross-cut will enable Cross Lake to conduct detailed drilling of the zone and potentially add significant tonnage to the property's resource base.

Cross Lake received government approval in December to restart the mine and will begin work in the first quarter of 2007 with production scheduled for the summer. A 42-man camp has been constructed on site. The mine restart will include the stringing of about 30 kilometres of three-phase powerline from the Gavin Lake sub-station to the minesite, refurbishing of the mill and provision of all necessary rolling stock and mining equipment.

Skygold Ventures Ltd (70%) and partner Wildrose Resources Ltd (30%) completed a major exploration program to further examine bulk-tonnage gold mineralization on their **Spanish Mountain** property east of Likely (Figure 4.15). Low grade gold mineralization is preferentially hosted by two horizons of graphitic argillite-mudstone that are separated by a thick, mostly barren horizon of greywacke. The sedimentary rock package is part of the 'black clastic succession' that occurs at the base of the Quesnel Terrane. Early in the year a high resolution Dighem electromagnetic survey was flown over the property. The data may assist in delineating the favourable fine-grained graphitic sedimentary rocks from non-graphitic coarser-gained clastic rocks in areas of significant cover.

The property has been divided up into the North Main, Central Main and South Main zones. Most of the

26 000 metres of drilling systematically explored the Central Main zone, and the work has expanded the dimensions of the Central Main zone to 1200 metres by 450 metres. The core and reverse circulation drilling continued to confirm excellent continuity of bulk-tonnage gold grades (e.g. hole 06-DDH-519 intersected 51.5 metres averaging 1.39 g/t Au) with approximately 50% of the analyses reported. A limited amount of drilling took place on the other zones with encouraging results. Skygold Ventures plans to carry out an NI 43-101 compliant resource estimation of the Central Main zone in 2007.

A reconnaissance soil sampling program outlined a new zone north of Spanish Creek and north of the presently active area. A northwest-trending gold anomaly, with individual values up to 985 ppb gold, measuring 1500 metres by 300 metres encompasses the Oscar showing. Grab samples of quartz vein material from the Oscar showing assayed as high as 41.0 g/t gold. It will be further examined in 2007.

Nearby, Acrex Ventures Ltd evaluated similar style gold mineralization on its **Hepburn Lake** property. Geochemical sampling outlined an 800-metre by 1000-metre gold soil anomaly. Follow-up diamond drilling tested the anomaly, but results were not available.

Skygold Ventures acquired from Hunter Exploration Group a large block of tenure northwest of Spanish Mountain, called the **SHG** property. In 2006, Hunter conducted a reconnaissance scale exploration program consisting of geological mapping, prospecting and geochemical sampling. The tenure covers geology similar to Spanish Mountain.

Barker Minerals Ltd completed a trenching and drilling program on its **Frank Creek** volcanogenic massive sulphide property southeast of Cariboo Lake. Previous exploration has identified polymetallic, base metal sulphide mineralization in stringers and semimassive bands within metasedimentary rocks of the Paleozoic Snowshoe Group. The 2006 exploration targets were defined by combined high chargeability and low resistivity geophysical anomalies and multi-element soil geochemical anomalies. Polymetallic sulphide stringer zones were encountered in several trenches and in drill core.

NovaGold Resources Inc optioned the **Shiko** alkalic porphyry copper-gold property, located north of Horsefly, from Rudy Durfeld. The company completed a modest geochemical sampling program.

South of Horsefly, Wildrose Resources and partner Fjordland Exploration Inc carried on with their evaluation of the **Woodjam** porphyry gold-copper property. Mineralization at Woodjam is associated with a subvolcanic quartz monzonite intrusion, part of the Late Triassic-Early Jurassic Takomkane batholith, in proximity to intermediate flows of the Nicola Group. Most of the 23-hole, 8000-metre diamond drill program targeted the southern extension of the Megabuck zone. Many of the



Figure 4.15. Drilling on the Spanish Mountain gold property.

holes successfully intersected the zone that typically began at depths of greater than 100 metres (e.g. hole 06-051 cut 208 metres averaging 0.55 g/t Au and 0.12% Cu starting at a depth of 168 metres). Late in the year a 526-metre drillhole tested the Takom zone near a previous intersection and within a coincident IP and geochemical anomaly. The company plans to resume drilling on the Takom target early in 2007.

Other companies active in the Horsefly area include Swift Resources Inc on the **Hen** gold property, Dajin Resources Corp on the **Cowtrail** gold-copper property and Eagle Peak Resources Inc on the **Peaks** gold-copper property. A small trenching program was conducted by Herb Wahl and brothers Jack and Jim Brown-John on their **Megaton** alkalic porphyry copper-gold prospect near Horsefly.

## McLeese Lake Area

Taseko Mines Ltd conducted an extensive diamond drilling program at its Gibraltar mine site utilizing two drills through much of the year. Drilling took place in several areas peripheral to the Pollyanna and Granite Lake pits, but beyond the present pit designs. The program identified long intersections of copper and molybdenum mineralization that extend the lateral and vertical expression of each deposit. East of Pollyanna, hole 06-32 intersected 100.6 metres averaging 0.32% Cu and 0.019% Mo. West of Granite Lake, hole 06-35 intersected 108.8 metres averaging 0.61% Cu and 0.018% Mo. Results from 67 holes in the Granite Lake area were incorporated into a revision of the geological model for the deposit. The modeling exercise also took into account current mining cost projections, metal market information and updated pit wall optimization. The work outlined an additional 67 million tonnes of proven and probable ore grading 0.33% Cu and 0.011% Mo. The definition drilling program will continue well into 2007 and could further expand the mine's overall reserve base.

Copper Ridge Explorations Inc completed a modest drill program that targeted coincident IP chargeability and copper geochemical anomalies on its **Copper Ace South** property just a few kilometres north of the Gibraltar minesite. Two other nearby properties, **Sheridan** and **McLeese** cover significant copper targets and will be the subject of 2007 exploration programs by the company.

## COAL EXPLORATION

West Hawk Development Corp proposed a major exploration program on its tenure that covers part of the important **Groundhog** anthracite coal property, located 370 kilometres northwest of Fort St. James. The intent of the program was to validate historical data and advance the coal resources into the measured and indicated categories for the Lower and Upper Discovery Seams. However, the project did not proceed because of a blockade that was established on the only access route to the property. Work in the early 1970s outlined a speculative coal reserve of approximately 980 million tonnes. Later, BC Hydro focused on identifying a 50 million tonne reserve that could support a 500 MW thermal power plant, while BCR began construction of the railway.

### **OUTLOOK FOR 2007**

The level of activity in the region is expected to remain high through 2007 and may increase from that witnessed in 2006. Many junior companies are wellfunded and budgets for future exploration programs are already in place.

Strong metal prices will ensure that the region's three operating metal mines are profitable. Reopening of the QR gold mine will provide approximately 40 more direct mining jobs in the Cariboo. Advancement of the Mt. Milligan project toward EA review and certification will set the stage for another major copper-gold mine development in late 2007/early 2008.

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