

# New energy in the west

This week, *Mining Journal's* 'On the ground' series moves to Canada for the first in a quarterly review of local news, views and developments. High prices for the energy minerals coal and uranium are boosting the economy of western Canada, and providing rewards to shareholders who recognised the opportunities they offered

**T**he Canadian mining stock market closed at year-end 2004 with a high degree of optimism, thanks to buoyant commodity prices – but particularly those for coal and uranium. Three western provinces are currently reaping the benefits of price increases in these two commodities, and strength in coal and uranium demand appears set to continue. From an investment standpoint, considerable profit was gained by those who recognised that these two commodities were destined to experience price increases.

The coal story depends on steel production, and specifically the metallurgical coal varieties common to the Cordilleran foothills of Alberta and British Columbia (BC). Hosting metallurgical coal for export to Southeast Asia and elsewhere, and steaming coal for domestic power requirements, foothill coal deposits have gone through feast or famine scenarios over the past 25 years.

In the past 12 months, metallurgical coal prices have risen from the C\$40-60/t range to well over C\$100/t, thereby adding immense value to this 1,000 km-long foothill coalbelt that runs parallel to the Alberta-BC border. A 'Cinderella' story, which created wealth for investors, citizens and shareholders, can be told for one deposit and one company, and retold, in part, for other companies with the same script.



BY ED SCHILLER

Around the year 2000, coal mines and properties in the foothills were closing down or being abandoned due to low steaming and metallurgical coal prices. At this time, some astute Calgary-based businessmen purchased the facilities of the Smokey River coal mine near Grande Cache in western Alberta for a few pennies on the dollar. They negotiated this investment into a mega-million-dollar gain by creating Grande Cache Coal Co, listed on the Toronto Stock Exchange.

## DEMAND SHOCK

Between 1969 and 2000, the Smokey River deposit



Left: Western Canadian Coal drilling at the Perry Creek open-pit in late 2002

produced 50 Mt of coking coal for export. However, the cancellation of coal contracts related to reduced worldwide steel production forced Smokey River to close

**"Foothill coal deposits have gone through feast or famine scenarios over the past 25 years"**

down. Thanks to patience and economic fortitude, the group held on to the property, and waited for the coal market to turn around. Their patience paid off with the ensuing worldwide demand for steel and coking coal.

With an initial public offering of C\$2.60/share in May 2004 (to net Grande Cache Coal Co C\$57.2 million), the stock catapulted to C\$17.00/share on December 31, but fell back to C\$18.50/share in early 2005. Posco of South Korea and a group of Japanese steel makers have secured contracts for two thirds of its annual production, amounting to 1.3 Mt of hard coking coal. When the Smokey River coal mine closed in 2000, Grande Cache had become almost a ghost town because it had depended on the mine for economic survival. Four years later, the town was again a thriving mining community thanks to a producing coal mine and the economic spin-offs.

Another successful company was Western Canadian Coal Corp, founded in 1997 to assemble coal properties in the Cordilleran foothills. The company's two principal assets are:

- 1) The Dillon open-pit mine located within the Burnt River coal deposit area, which forms part of the larger Brazlor group of coal properties. Two train loads of pulverised coal injection (PCI) and coking coal for trial purposes were railed to Vancouver in 2004 for shipment to Posco. A letter of intent calls for Posco to buy 3 Mt over six years.
- 2) The Perry Creek open-pit and underground deposits, and the EB Trend open-pit deposit located within the Wolverine group of properties. Development work will commence in 2006 to put this property into production.

The company has a number of other properties in



*Cameco is the largest producer of uranium in the world. Pictured here are two of its facilities: Cigar Lake (expected to be operational as a mine from 2007) and, inset, McArthur River*



## URANIUM MINES IN OPERATION AND DEVELOPMENT IN NORTHERN SASKATCHEWAN

Mine	Principal owner/ operator	Type	Production (Mlb/y)	Reserves/ resources (Mlb)	ore grade (% U <sub>3</sub> O <sub>8</sub> )
McArthur River <sup>1</sup>	Cameco	UG	15.2	436.5	24.76
McClellan Lake	Cogema	OP	6.0	41.4	1.6
Rabbit Lake (Eagle Point)	Cameco	UG	5.9	12.5	1.3
Cigar Lake <sup>2</sup>	Cameco	UG	18	231.5	19.0
Midwest project <sup>3</sup>	Cogema	UG/OP	-	35	4.4

Notes: **1** ore is milled at Key Lake  
**2** 2007 estimated production start; ores to be milled at the McClellan facility  
**3** production date not known



*Western Canadian Coal Corp has transported by rail two loads of PCI and coking coal for trials in South Korea*

the early stages of development. Of these, the Belcourt property will be subject to a 50:50 joint venture with Northern Energy and Mining Inc in conjunction with the latter's Saxon property.

Similar stories can be told for companies such as Pine Valley Mining Corp and Cline Mining Corp, which both acquired foothill properties at opportune times in anticipation of obtaining coal contracts. Pine Valley produces PCI and hard coking coal from its Willow Creek deposit near Chetwynd, BC. In 2004, the company shipped 45,000 t of PCI. Upon completion of additional

coal-handling facilities and a washing plant by July 2005, annual production is expected to increase to 2 Mt.

Cline Mining is advancing two projects – the Lossan mine in northeastern BC and the Lodgepole property in the Cross Nest coalfields in southeastern BC near the Elk Valley coal deposits of Fording Canadian Coal Trust

and Teck Cominco Ltd. The Lossan deposit is being fast tracked to yield 0.6-1.0 Mt/y of coal. Lossan possesses the same coal seams and coal quality as the nearby Pine Valley mine.

At Lodgepole, a diamond-drilling and underground development programme will be undertaken to confirm and provide information for the preparation of feasibility and environmental assessment studies before a production decision is made.



*Cogema Resources operates McClellan Lake*

### MEGA MERGER

The best coal story concerns the Elk Valley Coal Partnership, which boasts six coal operations: five in the Elk Valley of southeastern BC, near Fernie, and one in west-central Alberta. Elk Valley was formed when Canada's three principal export coal producers – Fording Inc, Luscar Ltd and Teck Cominco – merged. The partnership is owned by Fording Canadian Coal Trust (65%) and partner Teck Cominco (35%). Over the next two years, this ownership will change to 60% and 40% respectively.

The partnership is the world's second-largest producer of metallurgical coal, capable of producing more than 25 Mt/y, generating annual revenues in excess of C\$1.5 billion (based on 2004 sales contracts but likely to increase after 2005) and producing about 20% of the world's supply of high-quality seaborne metallurgical coal.

The partnership announced in December that two long-term contracts have been negotiated with Japan's Nippon Steel Corp and Posco to sell 4.85 Mt/y

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## NEAR-TERM SILVER PRODUCTION ■ LONG-TERM POTENTIAL

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Continued from page 19 of metallurgical coal in 2005 and 2006, and 6.25 Mt/y from 2007-14. In addition, Nippon and Posco will invest US\$25 million each for a 2.5% equity interest in the partnership.

The Cardinal River area of the Elk Valley Coal Partnership



**URANIUM SOURCE**

While the Cordilleran Mountains are blessed with coal, one 'prairie' province contains another form of energy: uranium. Saskatchewan and its Athabasca Basin uranium deposits are the highest grade in the world. Cameco Corp is the world's largest producer of uranium with two operating mines – McArthur Lake and the Eagle Point mine at Rabbit Lake in northern Saskatchewan – and two operating facilities in the US. Through its partnership with Bruce Power, it also operates six nuclear reactors in Ontario and accounts for 15% of that province's electricity.

The company will have a third operating mine,

expected to commence in 2007 at Cigar Lake, where reserves of 231.5 Mlb of U<sub>3</sub>O<sub>8</sub> have been established in ores with a grade of 19%. Over the past 12 months, spot uranium prices have almost doubled to US\$20.70/lb, precipitating a staking rush to northern Saskatchewan reminiscent of the kind of event when uranium was first found in the Athabasca Basin in 1968. Since then Sas-

katchewan has established itself as the premier locality of unconformity-type uranium deposits and the largest producer of uranium in the world at almost 19 Mlb/y.

Denison Mines Inc, long known as a former uranium producer at Blind River/Elliott Lake, Ontario, has reaped the benefits of these conditions through its 22.5% interest in the McLean Lake mine. McLean Lake is operated by Cogéma Resources Inc, a subsidiary of Areva SA of France. Denison is also a joint-venture partner on the Midwest project with operator Cogema. Recently Denison's interest in the Midwest project has increased from 19.96% to 25.17%.

Whereas coking coal is tied to steel manufacturing and very much dependent on many factors related to worldwide economic conditions, uranium is now recognised as an important energy source and an alternative to traditional fuel sources, given the current price of petroleum and the global warming stigma attached to fossil fuels.

The only current demand for uranium is to generate electricity, and the supply/price formula is a function of present off-take and new installations ready for production.

**“The only current demand for uranium is to generate electricity”**

**SUPPLY GAP**

The 441 nuclear reactors in operation around the world consume some 170 Mlb of U<sub>3</sub>O<sub>8</sub> to produce 360,000 MWe, or 16% of global electricity supply. At this time, 30 reactors are under construction, and 34 reactors are planned, which together would add another 60,000 MWe of estimated generating capacity. A shortfall in uranium production is imminent, and consequently uranium exploration is taking place worldwide.

The rush to Saskatchewan's Athabasca Basin has reaped substantial rewards in terms of stock-price appreciation for junior exploration companies. These include: UEX Corp, with 13 individual projects, some of which are joint ventures with Cameco, Cogema and Japan-Canada Uranium Co (JCU); and JNR Resources and International Uranium Corp, which are in several joint ventures, highlighted by the Moore Lake project where a significant discovery has been made. International Uranium also operates a uranium processing facility in Utah. JCU is a subsidiary of Japan-Canada Uranium Ltd, a consortium of four Japanese companies with 14 uranium projects operated by Cameco and Cogema.

There are now over 25 companies exploring for uranium. This figure is increasing almost daily.

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