

## **WEST WARMS TO COALBED METHANE MINING HIGH NATURAL GAS PRICES SPARK INTEREST IN EXTRACTION METHOD**

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As recently as two years ago, the idea of coal bed methane was dismissed by most as expensive and unnecessary, a distant eventuality supported only by a few lonely voices on the fringe.

One day, down the road maybe, finding natural gas in coal seams would be worth it, but that day wasn't coming anytime soon, particularly with prices fresh off another industry-punishing drop below \$2 US per thousand cubic feet.

In the ever-shifting oil industry, however, a few months can make a big difference.

Whereas two years ago, mentioning coal bed methane (CBM) was sure to spike any conversation, in a sudden about face, a host of firms are now busy talking up their coal bed potential to anyone who will listen.

While some of the chatter is just posturing -- itself verification of CBM's arrival -- in the last 18 months, hundreds of millions have been shelled out in CBM-related acquisitions, land prices in some CBM-prone areas have doubled, and commercial production from CBM wells, while still tiny, has risen dramatically.

"The old school may have dismissed it either for economic reasons or technical challenges, but with production coming on and people getting their hands dirty on this stuff and proving it can be done, the credibility in the exploration community has grown," said Steve Clark, a gas marketing director for TransCanada Corp.

Difficult and expensive to drill, with a history of environmental dust-ups in the U.S., for decades CBM projects remained on the back burner.

Between 1977 and 1999, explorers drilled 140 CBM test wells in Canada, every one of them a commercial bust.

While CBM accounts for nine per cent of U.S. output -- due largely to a tax credit that encouraged unconventional exploration -- until recently Canadian producers had little incentive to drill into tricky coal seams.

Western Canada, after all, was filled with well-understood conventional gas reserves that could be tapped with less risk and more profit.

Like most developments in the oilpatch, CBM's emergence here can be tied to commodity prices, specifically the widespread belief that gas prices are destined to remain high.

Loosely speaking, CBM projects are thought to need gas prices above \$4 US to be profitable. With prices topping that mark since late 2002, firms that once saw only red ink in CBM began to see dollar signs.

Hopping on the CBM train became even more viable after results from a project run by EnCana Corp. and a unit of Texas-based Quicksilver Resources proved that gas could be had from coal with little or no accompanying water production.

"We knew that all it was going to take was for someone to come out with some real data, real results, that said, 'Yeah, there is gas, and by golly it does produce and we know how to get it,' " said U.S. CBM veteran Phil Geiger, President of Canadian Spirit Resources Inc., a startup that's a pure play on CBM.

"A lot of projects that were nowhere a year ago are somewhere now."

The science behind many CBM plays means that some wells need to produce hundreds of barrels of water a day in order to get at the gas stores.

The success of the EnCana project showed that unlike areas in the U.S., where water production has caused a major environmental stir, in Alberta natural gas can be produced from so-called dry coals -- known in the industry as Horseshoe Canyon coals.

Previously thought to be the realm of big shops with pockets deep enough to assemble the large tracts of land needed to produce the reserves, the emergence of dry coals has made believers out of a crowd of firms.

With coal running under 80 per cent of Alberta, whether they initially cared or not, most firms found themselves on land with CBM potential.

Over the last two years, those that happened to be over prime Horseshoe Canyon lands in south-central Alberta have become de facto CBM shops.

"Everybody seems to have at least a little pilot project going somewhere," said Don Short, an analyst at Raymond James in Calgary.

This year alone, industry expects to drill more than 1,200 CBM wells.

Dozens of juniors, such as Mustang Resources Inc., Midnight Oil & Gas Ltd. and Resolute Energy Corp., have joined more established operators like Nexen Inc., Penn West Petroleum Ltd. and Thunder Energy Inc. in chasing CBM targets.

Once daunting, exploring in Horseshoe Canyon coals is now seen as similar to drilling for shallow gas, with the notable exception that CBM output declines at a slower rate, making it attractive to royalty trusts.

Among others, Enerplus Resource Fund's takeout of Ice Energy Ltd. and APF Energy Trust's deal for Great Northern Exploration Ltd. were done with CBM as part of the picture.

Such deals ensure that more juniors, ever mindful of which way the wind is blowing, will continue to dress themselves up as CBM plays.

"There's a lot of hype there," said Dan Allan, who became vice-president of CBM at APF after selling coal-bed player Canscot Resources Ltd. to the trust last year.

"As soon as the word gets good, everybody's a CBM expert."

From humble beginnings of 10 million cubic feet a day, commercial CBM output is now 50 mmcf/d, with the bulk of that coming on in the last year.

While still a drop in the bucket considering Canada's total gas output of roughly 16.5 billion cubic feet a day, production is edging up steadily.

CBM output is forecast to hit 150 mmcf/d next year and more than double to 400 mmcf/d by 2007, according to estimates from TransCanada.

By 2010, forecasts from several statistical groups put CBM output around 1.3 bcf/d, or roughly eight per cent of current Canadian production.

Of course, that output could be derailed if gas prices fall or by environmental worries, given that CBM can require drilling more than eight times as many wells as conventional plays.

Water production, while not currently an issue, is also still a concern, particularly when industry starts to tap the wetter coal formations currently being tested.

Still, drawing from the experience of Wyoming's Powder River basin, where CBM development, though hotly contested, went from 1,000 producing wells to 10,000 between 1998 and 2002, Canadian CBM could be poised on the cusp of a busy future.

"Once industry buys in, boy, do they go like a herd," said Allan.

"It's here in a big way now, it's here to stay, and it's going to get big."