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COALBED METHANE DEVELOPMENT

legal and regulatory issues for CBM

Although coalbed methane (“CBM”) may have once been an uneconomic byproduct of coal mining, David Farmer and Gavin Fitch describe how “CBM” has emerged to become an economically viable resource, which has had, and will continue to have, a significant impact on Alberta’s resource development. CBM is natural gas produced in the coal formation process, or coalification, and is stored on the internal surfaces of decomposing organic matter, such as plants and other vegetation, that is deposited in swamps and lakes, which is then over time transformed into coal. This rapid ascendancy and the proliferation of CBM development has posed significant regulatory and legal challenges as regulators, the courts and the legislature attempt to keep pace with development. The authors discuss how Alberta regulators are responding to these challenges and the way in which the courts may eventually apply existing law to CBM development issues. Also, some of the most significant decisions made by the Alberta Energy and Utilities Board, as well as decisions made by the courts in Alberta, the Supreme Court of Canada, the Privy Council and U.S. courts are examined. The development of CBM involves a complex mingling of scientific and legal issues, which will be important for Alberta’s economy. The authors note that the future of CBM development in Alberta is clear, in that it will occur, increase and become a significant economic factor. 610

CLIMATE CHANGE

climate change policy and legislation

Daniel Kirby, Shawn Denstedt, Jacob Sadikman and Matthew Keen describe the Mitigation Report that was released by the United Nations Intergovernmental Panel on Climate Change after a three-year process that focused on new literature regarding the scientific, technological, environmental, economic and social aspects of mitigation of climate change. Among the conclusions drawn from this literature review is that greenhouse gas emissions will continue to increase for at least the next few decades. The report goes on further to discuss some measures to reduce emissions. The authors then review Canadian climate change initiatives, including by the federal government, Alberta, Ontario, British Columbia, Quebec, New Brunswick and Saskatchewan. The authors note that a nationally consistent approach to the climate change issue will be important for the purpose of reducing emissions in an efficient and cost-effective manner. 623

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COALBED METHANE
DEVELOPMENT

Coalbed Methane Development: Legal and Regulatory Issues

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Introduction

The past decade has seen Coalbed Methane (“CBM”), once an uneconomic by-product of coal mining, emerge to become an economically viable resource whose impact on Alberta’s resource development will be long lasting. This rapid ascendancy and the proliferation of CBM development has posed significant regulatory and legal challenges as regulators, the courts and the legislature attempt to keep pace with development. This article will discuss how Alberta regulators are responding to these challenges and the way in which the courts may eventually apply existing law to CBM development issues.

CBM in Alberta

CBM, also known as natural gas in coal (“NGC”), is natural gas produced in the coal formation process, or coalification. It is stored on the internal surfaces of decomposing organic matter, such as plants and other vegetation, that is deposited in swamps and lakes, which is then over time transformed into coal.¹ Pressure develops, forcing this organic material further into the Earth while heat rises from below. This pressure produces methane gas, along with other gases, which are then adsorbed to the coal surfaces and trapped in coal seams.²

¹ E. Craig & M. Myers, “Ownership of Methane Gas in Coalbeds” (1978) 24 *Rocky Mtn. Mineral Law Institute* 767-768.

² “Coalbed Methane in Alberta” *Natural Gas in Coal Orientation* (September 2006), online: Alberta Energy, www.energy.gov.ab.ca.

It is this adsorption characteristic that makes CBM unique from other natural gasses. Unlike conventional natural gas, which is merely stored in the open pore space of source rock, CBM is both produced and stored in the coal bed. Further, coal, due to its large surface area, is able to store considerably more gas than conventional source rock.³

The amount of CBM stored within the coal is affected by a number of factors. These include the composition, rank (reflecting the pressure under which it was formed) and quality of the coal, the thickness of the coal seams, reservoir depth and permeability. Production of CBM is directly influenced by the presence of water in the coal formation and the area’s hydrodynamics.⁴ Production is further affected by the relationship between these factors. For instance, coal with a higher rank is indicative of restrictive permeability.⁵

Although commercial production of CBM in Alberta was attempted as early as the 1970s, the first CBM pool was not defined by the Alberta Energy and Utilities Board (“EUB” or “the Board”) until 1995 and commercial production of CBM did not occur until 2002.⁶

The EUB estimated established Alberta CBM reserves to be 20.9 billion cubic metres as at the end of 2005 (the last year available data has been compiled) in areas capable of commercial production. Over 1,600 CBM wells were drilled in 2005 with over 3,100 being connected that year (double the activity in 2004).⁷ The EUB projects that CBM production will increase nine-fold over the

³ “Coalbed Methane” *EnerFAQs No. 10* (November 2006), online: Alberta Energy and Utilities Board www.eub.gov.ab.ca [“EnerFAQs”]; J. Buckingham & P. Steele, “Coalbed Methane: Conventional Rules for an Unconventional Resource?” (2004) 42 *Alta. L. Rev.* 1 at 9; M. Heath & Associates, “The Potential for Coalbed Methane (CBM) Development in Alberta” (September 2001) at 5 [“Heath”].

⁴ Heath, *ibid.*

⁵ “Coal Maturation and Coalbed Methane (CBM) Generation,” online: Alberta Geological Survey www.ags.gov.ab.ca.

⁶ “ST98-2006: Alberta’s Energy Reserves 2005 and Supply/Demand Outlook 2006-2015” (May 2006), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca at 4-1.

⁷ *Ibid.* at 4-1 and 4-9.

ENVIRONMENT LAW

next 10 years and will account for 16% of all marketable produced gas in Alberta in 2015, a projected increase from the 2% it comprised in 2005.⁸

CBM is generally located within four geologic strata – the Ardley Coals of the Scollard Formation, the Coals of the Horseshoe Canyon Formation and Belly River Group, the Coals of the Manville Group and the Kootenay Coals of the Mist Mountain Formation.⁹ These strata cover approximately half of the province, extending from just north of Grande Prairie, trending southeast to the Lloydminster area and running to the United States border.¹⁰

The Ardley Coals of the Scollard Formation, running from Southeast of Red Deer to Southeast of Grande Prairie, are the shallowest coals and often contain significant amounts of water. The Horseshoe Canyon/Belly River Coals, trending from the Southwest corner of the province and arcing past Edmonton, have received attention as not only the first coals to generate commercial production, but also as the preferred target. Generally, these coals contain low gas contents and low water volumes, which provide positive economics for developers.

The Manville Coals cut a wide swath through Central Alberta, extending from Saskatchewan to the Rocky Mountains. These coals have not only high gas contents, but also high volumes of saline water, which demand extensive pumping that raises water disposal issues for operators.

Lastly, the Kootenay Coals, present solely in the foothills of the Southwest corner of the province, have attracted little commercial attention due to tectonic disruption.¹¹

Regulation of CBM in Alberta

EUB Informational Letter IL 91-11 (“IL-91-11”)

IL-91-11 was the first recognition of CBM in the Alberta regulatory context. It was issued

⁸ Ibid. at 4-9.

⁹ Ibid. at 4-6.

¹⁰ Ibid. at 4-8.

¹¹ Ibid. at 4-6; “Bulletin 2005-15” (June 23, 2005), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca.

on August 26, 1991 in an effort to acknowledge and clarify some of the uncertainty surrounding what was then a new resource and to outline some preliminary regulatory parameters until legislation, or fuller policy, was developed following testing of the resource.

IL 91-11 initially stated that the then Energy Resources Conservation Board, now the EUB, and the Alberta Department of Energy (“Alberta Energy”) would examine and monitor CBM activity, prior to developing and implementing the appropriate regulatory scheme. IL-91-11 then set out “Preliminary Regulatory Provisions” respecting: Crown leases, well licensing, surface leases, well spacing, drilling and completion, production, data reporting, experimental schemes, commercial development and Crown royalties. Of considerable import is that IL-91-11 stated without equivocation that, “the ERCB and [Alberta] Energy consider coalbed methane to be a form of natural gas.” This was followed with an assertion that CBM development is subject to the same drilling, production and operational regulations that apply to conventional natural gas development.

This statement was affirmed in a recent EUB publication *Across the Board*, the Board’s monthly public newsletter, where the EUB stated:

CBM is natural gas contained in coal. It consists primarily of methane, the gas we use for home heating, gas-fired electrical generation, and industrial fuel. CBM is classified as sweet gas, as it contains no hydrogen sulphide (sour gas).

Because CBM is nothing more than natural gas contained in coal, it is subject to the same drilling, production, and operational requirements and regulations as other natural gas. The major difference between CBM and conventional gas development is that more wells are required to effectively recover gas from coal seams.¹²

The EUB has also affirmed this statement in its EnerFAQs public information series. A recent edition of EnerFAQs contains the following:

¹² “Busting the myths behind CBM” *Across the Board* (March 2006), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca at 1.

CBM is subject to the same EUB drilling, production, and operations rules and regulations as other natural gas. Alberta Energy also treats CBM as natural gas for royalty and tenure purposes.¹³

Directive 027: Shallow Fracturing Operations – Interim Controls, Restricted Operations, and Technical Review

After IL 91-11, it was not until 2006 that CBM-specific regulation, or regulation directed at shallow gas that would include CBM activity, was developed. The first regulation was *Directive 027*, which was issued to address increasing development of shallow gas reservoirs, being those less than 200 metres deep, utilizing high fracture volumes, pump rates and pressures, all common techniques in CBM extraction. *Directive 027* is aimed at ensuring that the fracturing of shallow gas reservoirs does not adversely impact potable groundwater reservoirs

Directive 027 requires licensees to demonstrate to the Board a full assessment of all potential impacts of the proposed fracturing program. The licensee must determine the “maximum of propagation expected for all fracture treatments;” provide an “identification and depth of offset oilfield and water wells within 200m” of the proposed fracturing operations; provide “verification of cement integrity” within 200m of the operation; and demonstrate landholder notification for water wells within 200m.

Licensees are further prohibited from conducting fracturing operations within 200m of water wells that have a depth within 25m of the proposed fracturing depth. Lastly, *Directive 027* mandates that all fracturing treatments “use only non-toxic fracture fluids above the base for groundwater protection;” “be designed so that no zone containing non-saline water is contaminated;” and “not reach any other wellbore, including both oilfield and water wells, at any point during fracturing.”

Bulletin 2006-15: Baseline Water-Well Testing Requirement for Coalbed Methane Wells Completed Above the Base of Groundwater Protection

As a part of its “Water for Life Strategy,” Alberta Environment introduced the mandatory *Baseline Water-Well Testing for Coalbed Methane Operations*, effective May 1, 2006. In an effort to protect rural groundwater prior to any CBM well completion or re-completion, all CBM developers must offer baseline testing to landowners within a 600 m radius. If the affected landowners accept the offer, baseline water well testing must be performed. If no water wells are located within the 600 m radius, the developer must offer to provide testing on at least one well within an 800 m radius. This standard was developed in collaboration with the EUB, and Bulletin 2006-015 reflects the incorporation of the standard into the EUB’s compliance and enforcement regime.

Bulletin 2006-019: Applications Involving Objections Relating to the Legal Entitlement of Coalbed Methane

The Board issued this Bulletin on May 30, 2006, the effect of which was to suspend all well license and other applications involving questions respecting the legal entitlement to CBM. The Bulletin was issued as a result of Proceeding No. 1457147 (the “Split-title Proceeding”). The Split-title Proceeding was a challenge by coal owners, EnCana Corporation (“EnCana”), which owns a vast amount of coal rights as the successor to the Canadian Pacific Railway, and Carbon Development Partnership (“CDP”), the successor to coal rights granted to the Hudson’s Bay Company, to a number of CBM well license applications brought by Lessees of natural gas rights on freehold, split-title lands.

Bulletin 2006-019 effectively imposed a moratorium on the processing of CBM applications on split-title lands where CBM ownership is at issue, pending the Board’s determination of the Split-title Proceeding. That determination was made March 28, 2007, at which time the moratorium was lifted. The Split-title Proceeding is discussed in greater detail below.

¹³ *EnerFAQs*, supra note 3.

The Position of Alberta Energy

Alberta Energy has not established, nor communicated, an explicit policy respecting CBM development, other than to adhere to a position that CBM is natural gas¹⁴ and that all policies, regulations and legislation respecting natural gas development implicitly include and apply to CBM.

Alberta Energy maintains a position consistent with that of the EUB. The policy statement set out in IL 91-11 was legislated and enshrined in the *Mines and Minerals Act* (R.S.A. 2000, c. M-17), the governing statute respecting all mines and minerals and related natural resources belonging to the Crown, in 2003. This was done by the enactment of a new section, section 67, of the *Mines and Minerals Act*.

Subsection 67(1) of the *Mines and Minerals Act* provides that a coal lease does not grant the right to any natural gas, including CBM:

67(1) A coal lease grants the right to the coal that is the property of the Crown in the location in accordance with the terms and conditions of the lease but, subject to subsection (2), does not grant any rights to any natural gas, including coalbed methane.

Subsection 67(1) is qualified by subsection 67(2), which enables Alberta Energy to authorize a coal lessee to recover CBM. This provision reads as follows:

67(2) The Minister, on the recommendation of the Alberta Energy and Utilities Board that it is necessary to do so for safety or conservation reasons, may authorize the lessee of a coal lease to recover natural gas, including coalbed methane, contained in a coal seam in the location of the coal lease.

Despite the relative lack of CBM-specific legislation and policy guidance to date, Alberta Energy has been proactive in attempting to identify and address CBM-specific issues. In November 2003, Alberta Energy initiated a multi-phase review of CBM with the express purpose of assessing the current regulatory scheme to determine how and where improvements can be made. Alberta

Energy formed the Multi-Stakeholder Advisory Committee (“MAC”) to spearhead this review. The MAC was charged with the “ultimate objective” of ensuring that “the economic benefits of CBM/NGC development are balanced with the protection of land, air and water resources and the public.”¹⁵

The MAC was comprised of a broad cross-section of organizations representing the many stakeholders affected by CBM development. It included representatives from the oil and gas and coal industries, the agriculture sector and members of the environmental community, government and regulating bodies.¹⁶ A consultation process and review was initiated that included public information sessions and research as to how CBM issues are handled in other jurisdictions. The MAC released its Preliminary Findings in July 2005¹⁷ and its Final Report in January 2006.

In its Final Report, the MAC made 44 recommendations. These recommendations were grouped under the following categories:

Water – identifying a need for improved scientific information and the protection of aquifers and water supplies.

Surface/Air – recommending regulatory review by the primary regulatory bodies, being the EUB, Alberta Environment and Sustainable Resource Development, to identify methods of land management to address cumulative impacts and environmental protection.

Royalties – recommending a royalty reduction and tax reductions for five years to encourage development of saline CBM wells in the Manville formation in order to acquire information and data and the consideration of using fiscal tools to encourage the use of saline water for enhanced oil recovery and other uses (recommendations in this category were reached on a non-consensus basis).

¹⁵ “Coalbed Methane/Natural Gas in Coal Final Report” *The CBM/NGC Multi-Stakeholder Advisory Committee* (January 2006), online: Alberta Energy, www.energy.gov.ab.ca at 3.

¹⁶ *Ibid.* at 61.

¹⁷ “Coalbed Methane/Natural Gas in Coal Preliminary Findings” *The CBM/NGC Multi-Stakeholder Advisory Committee* (July 2005), online: Alberta Energy, www.energy.gov.ab.ca.

¹⁴ Alberta Energy refers to CBM in all communications as Natural Gas in Coal (“NGC”).

Tenure – noting that the Alberta government should increase awareness of the risks associated with split-title development, create a dispute resolution process to facilitate resolution of split-title ownership issues, review the criteria for the acquisition of shallow natural gas rights in situations of non-productivity and allow an additional one-year continuation to enable operators to submit evidence of work conducted during the initial lease continuation period to hold Crown natural gas rights;

Broad-Based CBM/NGC Issues – encouraging project-based planning and disclosure, regulatory review respecting public consultation and notification, enhanced coordination among regulating bodies, increased opportunities for public dialogue and information sharing, the implementation of annual reviews and the implementation of a monitoring plan to assess the progress of the MAC recommendations.

Lastly, the MAC made recommendations respecting CBM best practices, encouraging industry and government to work towards developing and implementing a best practices regime for CBM operations. A few non-CBM-specific recommendations were also made dealing with noise, EUB hearings, sales results, land agents, wildlife and caveats.¹⁸

The MAC recommendations are ambitious and since the release of the Final Report, there has been little in the way of policy or guideline implementation.

EUB Proceedings

EUB Decision 2006-102: EnCana Corporation: Applications for Licenses for 15 Wells, a Pipeline, and a Compressor Addition: Wimborne and Twining Fields, October 31, 2006 (the “Torrington Decision” or “Torrington”)

The Torrington Decision resulted from the first major public EUB hearing regarding CBM operations. Significant concerns were advanced by intervenor landowners (the “Intervenors”) who objected to the subject well license applications. The objections primarily

concerned water quality and noise levels from an existing compressor station that EnCana was proposing to expand by adding a second compressor unit.

The Intervenors were primarily concerned with maintaining the integrity of aquifers and most significantly, the protection of their water supply. The Intervenors specifically requested that surface casing be set to the base of the Paskapoo formation, the formation where most water wells in the area are completed, to ensure aquifer protection. This would have meant surface casing to varying depths of approximately 90 to 190 metres, whereas EnCana was proposing surface casing to a depth varying from approximately 89 to 160 metres. As an alternative position, the Intervenors urged the EUB to reject EnCana’s applications to reduce the depth of surface casing.

The Board rejected both of these positions. It found that the requirements of its *Directives 008, 009 and 056*¹⁹ provided adequate fresh water protection and that the proposed production from the Horseshoe Canyon would not adversely affect the overlying aquifers.²⁰

Another issue for the Intervenors was EnCana’s proposed fracturing process. The Intervenors argued that fracturing at such shallow depths could adversely impact local groundwater reservoirs. The evidence led by the Intervenors included three examples from the area where it was suspected that fracturing had affected water wells or springs. The Intervenors sought a direction from the Board that EnCana be required to perform an assessment of all potential fracturing impacts, as is contemplated under *Directive 027*.²¹

¹⁹ “Surface Casing Depth Minimum Requirements” *Directive 008* (October 1997), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca; “Casing Cementing Minimum Requirements” *Directive 009* (July 1990), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca; “Energy Development Applications and Schedules” *Directive 056* (September 12, 2005), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca.

²⁰ “EnCana Corporation: Applications for Licenses for 15 Wells, a Pipeline, and a Compressor Addition: Wimborne and Twining Fields” *Decision 2006-102* (October 31, 2006), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca.

²¹ *Ibid.* at 13-14.

¹⁸ *Supra* note 15 at 4-13.

ENVIRONMENT LAW

In response, the Board found that the proposed fracturing process posed no material risk to the area and did not trigger the requirements of *Directive 027* as the fracturing was planned to be below 200m.

An additional concern for the Interveners was EnCana's proposal to use untreated dugout water in drilling the surface holes. EnCana presented evidence that the use of untreated surface water would not harm aquifers and that the use of treated water would have little value as the water would come into contact with bacteria in the well-bore. The Interveners' expert concurred with EnCana in his evidence that bacteria found in surface water could not survive in an underground environment, but supported the Interveners' request that EnCana treat the water. The Board did not grant the Interveners' request.

In the result, the Board granted approvals for EnCana to drill 15 CBM wells, construct 46 lengths of pipeline, and upgrade a pipeline compressor on certain conditions that included the following:

- (a) that EnCana submit fracturing operations data, with respect to the shallowest fracturing operations, to the Board and the Interveners within five days of the operations;
- (b) that EnCana install a groundwater quality monitoring well in aquifers deeper than are currently used to determine what impact nitrogen fracturing operations may have on deep aquifers; and
- (c) that EnCana demonstrate that night-time noise levels fall within certain specifications.²²

The panel also recommended that the EUB undertake the coordination of a third-party report, specifically written for a public audience, to address the issue of groundwater and water wells and CBM development using surface water for drilling operations.²³ This recommendation was prompted by the Board's concern that there is a widespread belief among members of the public in Alberta that CBM operations adversely impact potable

groundwater, even though the technical and scientific evidence does not support this belief.

²² Ibid. at 25.

²³ Ibid. at 6.

Decision 2007-024: Bears paw Petroleum Ltd., Devon Canada Corporation, and Fairborne Energy Ltd. – Party 2 of Proceeding No. 1457147 – Review of Certain Well Licenses and Compulsory Pooling and Special Well Spacing (Holding) Orders in the Clive, Ewing Lake, Stettler, and Wimborne Fields

As discussed above, the issue of disputed ownership of CBM in freehold, split-title situations (between the coal owners and the natural gas lessors) was recently considered by the Board in the Split-title Proceedings. A major public hearing involving 13 parties occurred over 11 days in October 2006 with written closing submissions and arguments concluding in February 2007. Succinctly, at issue was the legal entitlement to CBM produced from freehold split-title lands where coal is owned by one party and the natural gas rights are owned by another and commonly leased to a CBM developer.

The Split-title Proceeding arose from various approvals (28 in total), granted by the EUB to natural gas rights holders, Bears paw Petroleum Ltd., Devon Canada Corporation and Fairborne Energy Ltd. (collectively, the “Applicants”) for well licenses, compulsory pooling orders and special spacing orders for the development of CBM (the “Approvals”).

Presumably based on an adherence to IL 91-11, and consistent with Alberta Energy’s position that CBM is natural gas contained in coal, the EUB approved the subject applications in the first instance. In order to grant the Approvals, the Board had to be satisfied that each of the Applicants were entitled to “the right to produce” the CBM, pursuant to section 16(1) of the *Oil and Gas Conservation Act*, (R.S.A. 2000, c. O-6). Section 16(1) reads as follows:

16(1) No person shall apply for or hold a licence for a well

(a) for the recovery of oil, gas or crude bitumen, or

(b) for any other authorized purpose

unless that person is a working interest participant and is entitled to the right to produce the oil, gas or crude bitumen from the well or to the right to drill or operate

the well for the other authorized purpose, as the case may be.

EnCana and Luscar Ltd. (now CDP) each hold coal rights on the lands which are the subject of the 28 different approvals. EnCana and CDP sought a review of the Approvals on the basis of their objection that the Applicants were not entitled to the right to produce CBM under section 16 of the *Oil and Gas Conservation Act* because EnCana and CDP owned the CBM contained in the coal. The Board granted their request, determining that both were affected parties with respect to the issuance of the Approvals.²⁴

In recognition of the fact that CBM ownership on split-title lands was an issue facing many mineral rights holders and affected parties, the Board invited and received submissions from a number of interested third parties, primarily CBM producers, but also royalty owners and the Freehold Petroleum and Natural Gas Owners Association (“FHOA”), a non-profit group representing freehold land owners.²⁵ The Board decided that the two royalty owners, Canpar Holdings Ltd. and Computershare Trust Company of Canada would be granted Intervener status.²⁶

Applying the criteria for participation at an EUB public hearing set out in the *Energy Resources Conservation Act* (R.S.A. 2000, c. E-10) and the Alberta Court of Appeal’s decision in *Dene Tha’ First Nation v. Alberta (Energy and Utilities Board)*,²⁷ the Board granted “Interested Third Party” status to four CBM producers (ARC Resources Ltd., Centrica Canada Limited, ConocoPhillips Canada Resources Corp. and Quicksilver Resources Canada Inc.) and the FHOA. This enabled these parties to present evidence, conduct cross-examination and submit argument.

The public hearing commenced on October 16, 2006. Over the course of two weeks, the Board heard policy, scientific and

²⁴ Alberta Energy and Utilities Board, *Decision, Phase 1 Proceeding*, March 9, 2006.

²⁵ “Notice of Hearing: Part 2 of Proceeding No. 1457147” (June 23, 2006), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca.

²⁶ Letter from Alberta Energy and Utilities Board to Registered Parties and Interested Third Parties (July 19, 2006) re: Proceeding No. 1457147, Coalbed Methane (CBM) Review Hearing.

²⁷ (2005) 45 Alta. L.R. (4th) 213, 2005 ABCA 68.

ENVIRONMENT LAW

legal evidence respecting the ownership of and entitlement to CBM from virtually all parties. Further evidence was submitted as to the jurisdiction of the Board to determine the legal issue of the entitlement to produce CBM.

The legal arguments presented at the Split-title Proceeding, either in support of the proposition that CBM ownership resides with the coal owner or conversely, that it resides with the natural gas owner, had never before been heard and determined in Canada. While Canadian courts have considered the issue of entitlement to competing resources²⁸ and U.S. state and federal courts have considered the CBM issue,²⁹ no Canadian court has had the opportunity to consider ownership of CBM in the split-title context. This places considerable import on those arguments advanced at the Split-title Proceeding, as they will be similar to those advanced in litigation on the same issue.

The starting point of the gas producers' legal argument was *Borys*,³⁰ the seminal decision in Canadian jurisprudence on this matter. In *Borys*, the subject land was originally acquired by the Plaintiff landowner through a Canadian Pacific Railway ("CPR") grant that reserved to the CPR "coal, petroleum and valuable stone," a situation similar to the vast majority of split-title lands. At issue were the rights with respect to petroleum, free gas and solution gas. The Privy Council, in agreement with the Appellate Division of the Supreme Court of Alberta, first found that petroleum and free

gas, despite the similarities between the two, were separate and distinct substances.³¹ It was then decided that free gas, existing in a gaseous state in the initial reservoir conditions (*in situ*) was not caught by a reservation of petroleum.³²

The Privy Council was then faced with a determination as to whether solution gas, or gas existing in a liquid state *in situ*, was included in the reservation. The Court's analysis was predicated on a consideration of the "vernacular" meaning of the reservation at the time of the grant.³³ The Court agreed with the lower courts and held that at the time of the grant, 1906, the vernacular understanding of the reservation was that petroleum included solution gas.³⁴ Also of significance is that in preferring the vernacular test, the Privy Council explicitly rejected the scientific evidence that was advanced; evidence that was current at the time of its presentation.³⁵

Borys has been subsequently applied in two important cases, *Anderson*³⁶ and *Goodwell*.³⁷ In *Anderson*, the Supreme Court of Canada applied *Borys* in the context of an ownership dispute involving evolved gas on split-title lands. Evolved gas is solution gas that emerges or evolves from liquid hydrocarbons due to an increase in reservoir pressure. The Court relied on the principle enunciated by the Privy Council in *Borys* that the *in situ* conditions of the substance governs the relative ownership as between the parties to the original grant, transfer, reservation or contract and that the time for interpreting the meaning of substances, chiefly petroleum, is at the time the document in question was executed.³⁸ The Court also agreed with the lower court in *Borys*, upheld by the Privy Council, that changes in the state or phase of the substance do not affect the ownership of the substance.³⁹ The subject substance in *Anderson*, evolved gas, because it existed in a

²⁸ For example, oil versus "gas cap" gas or bitumen versus "gas cap" gas as has been considered in the following: *Borys v. Canadian Pacific Railway*, 7 W.W.R. (N.S.) 546, [1953] 2 D.L.R. 65 (P.C.) ["*Borys*"]; *Anderson v. Amoco Oil and Gas*, [2004] 3 S.C.R. 3, 2004 SCC 49 ["*Anderson*"]; *Alberta Energy Co. v. Goodwell Petroleum Corp.*, 339 A.R. 201, 2003 ABCA 277 ["*Goodwell*"].

²⁹ See, for instance, *United States Steel Corp. v. Hoge*, 503 Pa. 140, 468 A.2d (Pa. 1983); *Carbon County v. Union Reserve Coal Co. Inc.* 898 P.2d 680 (Mont. 1995); *Continental Resources of Illinois Inc. v. Illinois Methane LLC*, 364 Ill. App. 3d 691, 847 N.E. 2d. 897 (Ill. 2006) ["*Continental Resources*"]; *Newman v. RAG Wyoming Land Co.*, 2002 WY 132; 53 P.3d 540 (Wyo. 2002); and *Amoco Proc. Co. v. Southern Ute Tribe*, 526 U.S. 865; 119 S. Ct. 1719 (U.S.S.C. 1998) ["*Southern Ute*"].

³⁰ *Supra* note 28.

³¹ *Borys*, *ibid.* at paragraph 4 (QL).

³² *Ibid.*

³³ *Ibid.*

³⁴ *Ibid.* at 6.

³⁵ *Ibid.* at 5.

³⁶ *Supra* note 28.

³⁷ *Ibid.*

³⁸ *Anderson*, *supra* note 28 at paragraph 34 (QL).

³⁹ *Ibid.* at paragraph 29 (QL).

liquid state *in situ*, was found to belong to the petroleum owner.⁴⁰

At issue in *Goodwell* was the ownership of natural gas overlying bitumen deposits on Crown split-title lands where natural gas was leased separately from bitumen, as is the statutory scheme set out in the *Mines and Minerals Act*. The gas producer, Goodwell, applied to the EUB for an order to shut-in concurrent bitumen production being obtained by Alberta Energy Co. (“AEC”). Goodwell’s shut-in application was made on the basis that in producing the bitumen, AEC was also producing large quantities of overlying natural gas which was separately leased by Goodwell. In other words, Goodwell claimed that AEC was producing Goodwell’s gas. AEC argued that production of the overlying natural gas was necessarily incidental to production of its bitumen. The EUB agreed with Goodwell and ordered AEC to shut in its bitumen wells pending negotiation between AEC and Goodwell of a commercial arrangement for the production by AEC of Goodwell’s gas. AEC appealed the shut in order to the Alberta Court of Appeal.

The Court overturned the EUB’s decision. It held that gas cap pressure was critical to the recovery of bitumen and therefore bitumen owners had the right to produce gas cap gas along with bitumen.⁴¹ The Court further considered the language of the original granting instrument and determined that in the case of a natural gas lease, the lessee had only the right to recover initial gas cap gas.⁴² Moreover, the natural gas lessee’s right to gas is subject to the known and inevitable consequence of bitumen recovery, the production of gas cap gas.⁴³ The Court further expressly followed *Borys* and found that the EUB had erred by ignoring *Borys*.

In addition to this key Canadian jurisprudence, the gas producers relied heavily on *Southern Ute*,⁴⁴ a decision of the United States Supreme Court, which is clearly the most persuasive and relevant U.S. authority on this subject. *Southern Ute* is not only a relatively recent decision of the United States’

highest court, but the Court also employed a *Borys*-type approach to interpreting a land conveyance that was contemporaneous with those land grants and reservations that are at issue in the Split-title Proceeding.

Southern Ute arose as a result of a United States government decision to restore title to coal to the Southern Ute Indian tribe on lands in Colorado. The government had issued land patents to settlers, pursuant to legislation of 1909 and 1910, that conveyed the land and everything below it, except coal, which was reserved to the United States. These patented lands included reservation lands previously ceded by the Southern Ute tribe to the United States. Beginning in the 1980s, CBM production occurred on the lands pursuant to natural gas leases granted by successors in interest to the settlers. The Southern Ute tribe sued, claiming that by virtue of its ownership of the coal rights in the land, it also owned the CBM. The tribe therefore claimed that the royalties paid to the natural gas lessors in fact belonged to them. The Court was faced with the issue of whether the reservation of coal in the original patents included a reservation of CBM.

Like the Privy Council in *Borys*, the Court considered scientific evidence as to the nature of CBM, but preferred instead to utilize an interpretation of the vernacular meaning of the coal reservation at the time of the original grant. In finding that the initial reservation did not include CBM, the Court relied on the common meaning of coal at that time, which was a “solid rock substance”⁴⁵ distinct from any gas that may escape from it.

In the Split-title Proceeding, the coal owners, EnCana and CDP, relied on legal authority in support of the proposition that CBM ownership lies with the coal owner. In particular, the coal owners relied on *Little v. Western Transfer & Storage Co. and Edmonton Collieries Ltd.*⁴⁶ This decision of the Alberta Supreme Court, Appellate Division, is one of the few Canadian cases that supports the coal owners’ position. The Court in *Little* was asked to interpret the scope of a coal grant by the landowner, Little, to Western Transfer, a coal company. More specifically, at issue was whether the rights granted

⁴⁰ Ibid. at paragraph 19 (QL).

⁴¹ *Goodwell*, supra note 28 at paragraph 43 (QL).

⁴² Ibid. at paragraph 78 (QL).

⁴³ Ibid.

⁴⁴ Supra note 29.

⁴⁵ Ibid. at paragraph 7 (QL).

⁴⁶ [1922] 3 W.W.R. 356, 69 D.L.R. 364, (Alta. S.C. A.D.).

ENVIRONMENT LAW

included the right to remove coal mined on adjoining lands, through a process known as “outstroke.”

Following its interpretation of the grant and a consideration of the commercial relationship between the parties, the Court held that the right to use the space occupied by the coal carries with it an entitlement to all substance contained within that space, regardless of whether these substances were included in the original grant. The coal owners relied on *Little* to support the notion that ownership of coal strata includes the CBM located within that strata, a determination that can be made without consideration of the granting language.

Notably, EnCana also relied on a recent decision by the Illinois State Court, *Continental Resources*.⁴⁷ Continental Resources claimed that it had the right to explore for, drill and produce CBM underlying certain lands. These lands were the subject of a number of oil and gas leases to which Continental Resources was the lessee. These leases granted Continental Resources the right to produce oil, gas, liquid hydrocarbons and their constituent products.⁴⁸ However, at the time the litigation was initiated, the coal owner, Illinois Methane, was producing CBM from the lands.

The Appellate Court of Illinois considered decisions from other U.S. states dealing with CBM ownership and stated that while the approaches utilized by other state courts were helpful, they were not founded in Illinois law. Further, the Court held that it was necessary to consider the characteristics of CBM and the methods and rights engaged in its extraction and production generally.⁴⁹

The Court then considered the coalification process by which organic material is transformed into coal and the historical perception of CBM as a dangerous waste product.⁵⁰ The Court also noted that the theory of oil and gas ownership employed in Illinois is based on the rule of capture and because CBM is similar to and migrates in the same

fashion as conventional natural gas, there is no reason that the rule of capture would not apply to CBM.⁵¹ Lastly, the Court considered the specific wording of the leases in question, which granted the right to drill through coal.

⁴⁷ *Supra* note 29.

⁴⁸ *Continental Resources*, *supra* note 29 at paragraph 2 (QL).

⁴⁹ *Ibid.* at paragraph 3 (QL).

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

Ultimately, the Court found that under the rule of capture, CBM cannot be owned until it is reduced to possession.⁵² Accordingly, CBM ownership was retained with the coal owner who in this case was also the CBM producer.

Although the intent of this article is not to address the science of CBM in an in-depth fashion, as can be seen from the application of the legal tests relied on by both sides in the Split-title Proceeding, science is a crucial component to the debate and accordingly demands some consideration. Both sides presented considerable scientific evidence in support of their respective positions.

As described above, CBM is natural gas contained in coal, stored primarily through adsorption to the coal, as opposed to conventional natural gas, which is stored in open pore space. The storage of CBM can give rise to a claim of ownership by the coal owners on the basis that because CBM is adsorbed to the coal, it is a “constituent” of coal. The argument is that CBM is not a separate substance (natural gas) that is simply stored in coal, but rather that due to the way that CBM interacts with other coal constituents, is a part of the coal itself.

By contrast, the natural gas producers argued that CBM and coal are distinct, both at initial reservoir conditions and upon production; that coal is nothing more than a container for the CBM and that the fact that CBM is stored by means of adsorption does not mean that CBM is a constituent of coal.

As noted above, the Board released its findings in the Split-title Proceeding, Decision 2007-024, on March 28, 2007. The Board confirmed that the subject well licenses and orders were properly issued. Further, *Bulletin 2006-019* was set aside,⁵³ lifting the moratorium on CBM split-title applications.

The Board found in clear favour of the natural gas producers and associated parties. On all points, the entitlement to produce CBM by the natural gas Lessees was confirmed. Although recognizing the limitations of its finding (i.e., that the EUB cannot make a final or conclusive determination of ownership as

this power rests solely with the courts), the Board concluded that the Applicant’s had demonstrated entitlement to produce CBM, per section 16 of the *Oil and Gas Conservation Act*, it will grant requested licenses and orders.

Key to the Board’s finding was the conclusion, based on the technical evidence before it, that “CBM is not an intrinsic component of coal ... CBM is a form of gas stored in and produced from coal that is gaseous and distinct in *in situ* conditions.”⁵⁴ Further, this is considered by the Board to be consistent with the statutory definition of gas, as set out in the *Oil and Gas Conservation Act*.⁵⁵ The Board also dispensed with the argument advanced by EnCana and CDP that it did not have jurisdiction to decide entitlement, concluding that a determination of entitlement to produce under the *Oil and Gas Conservation Act* was wholly within the ambit of its jurisdiction.

The most significant portion of *Decision 2007-024*, of course, is the EUB’s consideration of the entitlement arguments by the parties, which the Board found entailed an analysis of “regulatory entitlement” as well as legal theories of entitlement and ownership.⁵⁶

In finding in favour of the arguments advanced by the natural gas producers, the Board relied on the premise established at the outset of its decision, namely, CBM “gas” as defined in the *Oil and Gas Conservation Act* is consistent with its own internal understanding as set out in IL 91-11. The Board’s view is that these determinations are sufficient to establish regulatory entitlement, meaning that all an applicant need do is submit to the Board a valid and subsisting natural gas lease.

⁵⁴ “Bears paw Petroleum Ltd., Devon Canada Corporation, and Fairborne Energy Ltd.: Part 2 of Proceeding No. 1457147 – Review of Certain Well Licences and Compulsory Pooling and Special Well Spacing (Holding) Orders in the Clive, Ewing Lake, Stettler and Wimborne Fields” *Decision 2007-024* (March 28, 2007), online: Alberta Energy and Utilities Board, www.eub.gov.ab.ca at 8.

⁵⁵ Section 1(1) of the *Oil and Gas Conservation Act* states: “gas” means raw gas or marketable gas or any constituent of raw gas, condensate, crude bitumen or crude oil that is recovered in processing and that is gaseous at the conditions under which its volume is measured or estimated.

⁵⁶ *Supra* note 54 at 22.

⁵² *Ibid.*

⁵³ By way of the immediate issuance of *Bulletin 2007-07*, the EUB rescinded the directions set out in *Bulletin 2006-019*.

ENVIRONMENT LAW

This constitutes *prima facie* proof of entitlement to the right to produce. Significantly, the Board observed that while its analysis could have ended with the establishment of regulatory entitlement, it carried on to provide⁵⁷ its assessment of the legal arguments. At the outset, the Board noted that the ultimate authority in determining ownership or entitlement rests with the courts. However, it relied on the Court in *Goodwell*, stating that “in order to make a legal determination of the right to extract resources, the Board must examine the relevant leases, energy statutes, and applicable case law.”⁵⁸ The applicable case law is covered by the Board’s statements that the “proper principles to apply in considering entitlement or ownership are set out in the *Borys*, *Anderson*, and *Goodwell* cases.”⁵⁹

The Board noted its preference for the “*Borys* interpretative approach”⁶⁰ and accordingly relied on *Southern Ute* and dictionary definitions of coal at different historical periods that were submitted as evidence by natural gas producers. It found that “the vernacular meaning of coal has remained consistent throughout the last century and into the current time period.”⁶¹ Further, *Borys*, and its application in *Anderson*, together with *Southern Ute*, provided the rationale for distinguishing *Continental Resources*. The Board also dispensed with *Little*, considering that case to be “primarily concerned with the right of outstroke and not with competing claims of ownership to other minerals contained in the same interval.”⁶²

The Board concluded its findings with a review of the specific instruments in question and determined that on all counts the Applicants has demonstrated the *prima facie* entitlement necessary for approval and dispensation of the objections of EnCana and CDP.

On April 26, 2007, both EnCana and CDP filed Notices of Motion in the Alberta Court of Appeal seeking leave to appeal *Decision*

2007-024.⁶³ The grounds for these applications include:

- (a) that the Board found that it had jurisdiction, and then exceeded same, to decide entitlement to produce CBM in the face of a *bona fide* ownership dispute;
- (b) that the Board misconstrued the law on a number of counts such as failing to find that a reservation of coal precludes a natural gas lessee from entitlement to produce CBM; failing to apply the proper legal test to determine ownership, especially in light of competing claims; and determining entitlement to CBM despite extant litigation in the Court of Queen’s Bench;
- (c) that the Board took into account irrelevant evidence and failed to take into account relevant evidence;
- (d) that the Board improperly applied and ignored pertinent sections of the *Oil and Gas Conservation Act*;
- (e) that the Board breached its duty to act in accordance with the principles of natural justice and fairness in not providing adequate notice of its intention, and what would be required by EnCana, to decide the ownership issue; and
- (f) that the Board defeated EnCana’s legitimate expectation that the Board would follow its usual practice and not determine contractual matters.⁶⁴

The leave applications have not been heard, at the time of the preparation of this article. However, it is anticipated that should leave be granted, the Court of Appeal will hear the respective appeals in a timely manner.

CBM Litigation

As mentioned above, it is likely that the ultimate resolution of the split-title issue will occur in the courts. Throughout the Split-title Proceeding, it was clear throughout that the scope of the Board’s inquiry exceeded the

⁵⁷ *Ibid.* at 25.

⁵⁸ *Ibid.* at 27.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.* at 31.

⁶¹ *Ibid.* at 32.

⁶² *Ibid.*

⁶³ *EnCana Corporation v. Alberta Energy and Utilities Board*, April 26, 2007, Calgary 0701-0111 AC (C.A.); *Carbon Development Partnership v. Alberta Energy and Utilities Board*, April 26, 2007, Calgary 0701-0110 AC (C.A.).

⁶⁴ *Ibid.*

typical facility or license review request. All parties submitted sophisticated legal arguments and evidence to buttress the scientific evidence and the Board provided a comprehensive and reasoned decision. It is likely, however, and certainly acknowledged by the Board,⁶⁵ that through either appeal or by virtue of the litigation that has been recently initiated, the CBM ownership issue will be decided by the courts.

At present, there have been ten claims initiated in the Alberta Court of Queen's Bench respecting the legal ownership of CBM.⁶⁶ All ten actions have been commenced by EnCana, in its capacity as the coal owner in freehold split-title scenarios, against natural gas Lessees who have commenced CBM production. Of these suits, nine are active and the first, commenced in July 2005, has not proceeded.⁶⁷ However, the nine remaining actions, commenced in October, November and December 2006 and January 2007, remain active.⁶⁸

All the claims are virtually identical. EnCana asserts its status as the coal owner, alleges that the defendant gas producer has perforated the coals and has commenced production without colour of right. EnCana alleges trespass, conversion and unjust enrichment resulting from same. The relief

sought is a declaration that the gas producer is in trespass and has converted the CBM and an accounting of the proceeds of production.

Currently, these actions are in the earliest of procedural stages and it remains to be seen how this litigation will unfold. It is likely that should they remain on course for a judicial determination, we will see application of most of the legal submissions heard during the Split-title Proceeding and hopefully a conclusive and final determination of the ownership issue.

Conclusion

The future of CBM development in Alberta is clear in some regards – it will occur, increase and become a significant economic factor. The ease of this, however, depends on the ability of regulators, chiefly the EUB, government and the courts to effectively resolve the disputes that currently exist and that will no doubt arise in the coming years.

The groundwork for managing CBM development has been laid. The MAC provided a thorough consultation process that facilitated a comprehensive review of a multitude of CBM-related issues. The EUB has been active in developing and implementing policy and regulation and has demonstrated a willingness to encourage and stimulate CBM exploration.

However, as the level of CBM development increases, concrete action needs to occur. The MAC recommendations need to be implemented, especially those aimed at encouraging coordinated efforts between and among regulators such as Alberta Environment and Sustainable Resource Development. The EUB needs to balance public concerns about water safety and well proliferation with the need for development of the CBM resource. Alberta Energy needs to become visible as well. The absence of Alberta Energy at the Split-title Proceedings was telling, particularly in the face of compelling submissions by the FHOA.

These submissions provided a clear indication as to the position of the FHOA, one that has become more pronounced since *Decision 2007-024* was released. The FHOA has been clear that the best way to avoid costly and lengthy litigation is for the Alberta

⁶⁵ Ibid. at 33.

⁶⁶ The writers are aware of ten as of the time this article was initially prepared.

⁶⁷ See *EnCana Corporation v. Trafina Energy Ltd.*, July 15, 2005, Calgary 0501-10483 (Q.B.).

⁶⁸ See *EnCana Corporation v. Devon Canada Corporation*, October 25, 2006, Calgary 0601-12266 (Q.B.); *EnCana Corporation v. Devon Canada Corporation*, October 25, 2006, Calgary 0601-12267 (Q.B.); *EnCana Corporation v. Devon Canada Corporation*, December 19, 2006, Calgary 0601-14382 (Q.B.); *EnCana Corporation v. Quicksilver Resources Canada Inc.*, November 3, 2006, Calgary 0601-12671 (Q.B.); *EnCana Corporation v. Enerplus Resources Corporation*, November 7, 2006, Calgary 0601-12767 (Q.B.); *EnCana Corporation v. Enerplus Resources Corporation*, November 7, 2006, Calgary 0601-12781 (Q.B.); *EnCana Corporation v. Enerplus Resources Corporation*, November 7, 2006, Calgary 0601-12782 (Q.B.); *EnCana Corporation v. ARC Resources Ltd.*, January 10, 2007, Calgary 0601-12766 (Q.B.); *EnCana Corporation v. Excite Energy Corp. and Canadian Natural Resources Limited*, November 7, 2006, Calgary 0601-12765 (Q.B.).

ENVIRONMENT LAW

government to legislate split-title ownership as has occurred in British Columbia.⁶⁹ The FHOA further asserts that this legislation needs to be in place soon. As FHOA spokesperson David Spiers stated: “the problem I see is if it proceeds ... the issue could be 5 or 10 years in being decided by the courts ... during that period, we will have lost the majority of our coalbed methane through drainage.”⁷⁰ In response, Alberta Energy has stated that “the provincial government has no plans to change the legislation on freehold rights as they differ from title to title.”⁷¹

This is in contrast to the situation in British Columbia, where the provincial government was motivated to provide as much certainty as it could. Of course, it can be argued that there are far fewer freehold split-

title lands in British Columbia than in Alberta and accordingly there are far fewer freehold rights owners and the scale of development is much smaller. This, however, does not necessarily demand less involvement. If anything, it may require more, or at the very least, a presence.

While we have the persuasive, but not binding *Decision 2007-024*, in the absence of any activity by Alberta Energy, the courts will still likely be brought into the fray, given the pending leave to appeal applications and the Court of Queen’s Bench litigation. It is presumed that this will eventually provide the final answer to the CBM ownership equation, one that will enable the certainty that both industry and the public require.

⁶⁹ S. Polczer, “Energy board rules coal, gas separate rights,” *Calgary Herald*, (29 March 2007) C4.

⁷⁰ D. O’Meara, “Entitlement scrap over coalbed methane gaining force in Alberta’s oilpatch,” *Canadian Press* (29 March 2007) (QL).

⁷¹ *Ibid.*