

NEWSLETTER

The Freehold Owners Association (“FHOA”)

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Coalbed Methane ... What it Means to Freeholders

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What is Coalbed Methane?

Coalbed methane (CBM) is the purest form of natural gas (approximately 97% methane or CH₄) and is indistinguishable from the natural gas we currently use to heat our homes, generate electricity, and fuel industries. CBM was generated when ancient plant matter collected in swamps and bogs and, over millions of years, was transformed into coal (the coalification process). Some of the methane gas released during the coalification process has escaped to the surface, some has migrated into adjacent formations, and some has been trapped within the coalbeds as:

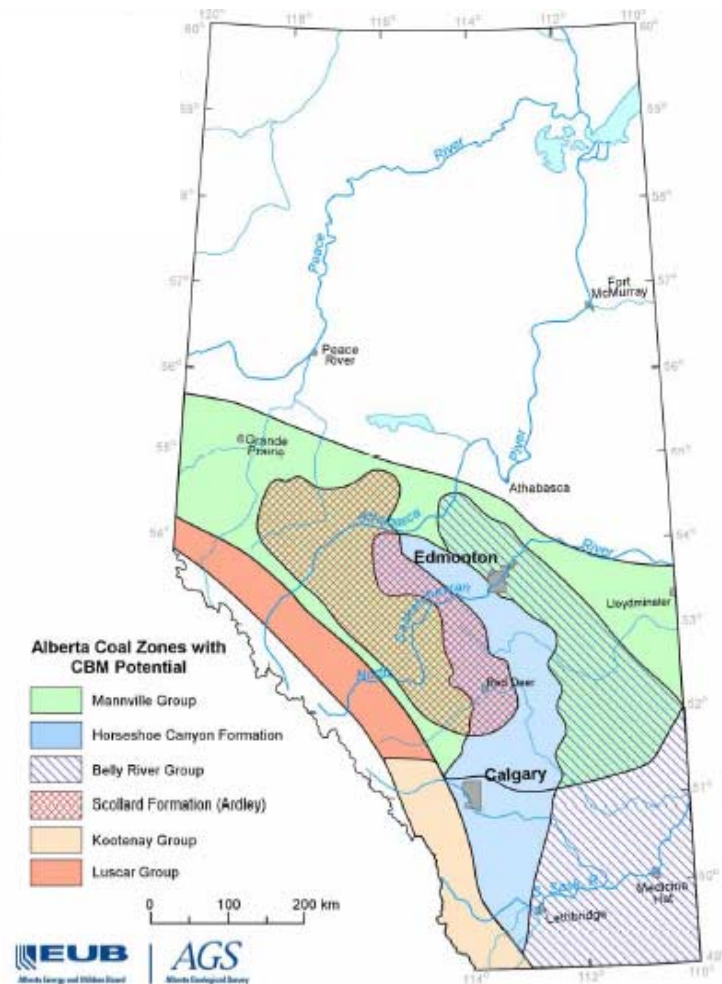
- i) free gas within the natural fractures in the coal (micropores and cleats);
- ii) dissolved gas in water within the coal;
- iii) gas held by molecular attraction to the coal surfaces (adsorbed); or
- iv) gas within the molecular structure of the coal molecules (absorbed).

There are a great number of different coal beds in Alberta. These beds have been grouped by geological age. The coals in each group have distinct characteristics (ie depth, thickness and quality) and several of the groups overlap (see figure¹).

Generally speaking, shallow coals have relatively well developed fracture systems due, in part, to lower overburden pressure. These fractures enable CBM to move relatively freely into well bores and the coals are said to have good permeability. Deeper coals, on the other hand, are generally more mature and have a higher gas content. But the greater overburden limits fracture growth, thereby restricting gas flow into well bores (i.e. lower permeability).

As illustrated on the map to the right, there is CBM potential on almost all freehold lands within Alberta.

Drilling activity is currently focused within the shallow Horseshoe Canyon/ Belly River coals in Southern Alberta, deeper Mannville coals in north-central Alberta, and Ardley coals in central Alberta.



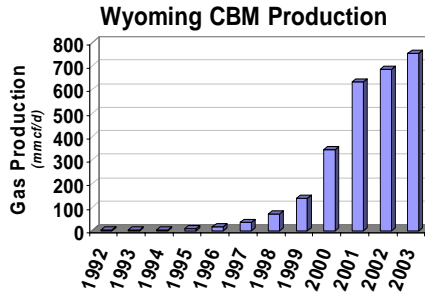
¹ Alberta Department of Energy,
<http://www.energy.gov.ab.ca/com/Gas/CBM>

Why Now?

CBM is a significant new western Canadian energy resource. It is too early to know exactly how much of the estimated 150-500 trillion cubic feet (Tcf)²³ of CBM within the western Canadian sedimentary basin is economically recoverable, but as this potential reserve is greater than the 88 Tcf of remaining conventional gas, recovering even a fraction of the available CBM will be significant.

In the case of Alberta, our remaining reserves of conventional gas peaked in 1981 and, for the past 22 years, the industry has been producing more gas than it has found. As of December 31, 2002, the Alberta Energy and Utilities Board estimated that 73% of the province's 152 Tcf of initial marketable gas reserves have already been produced and 44 Tcf remain. CBM production is needed to help maintain market-supply demand balance. Declining supply and increasing demand results in higher and occasionally erratic pricing which is disruptive to both consumers and the gas exploration and production industry.

The Government of the United States encouraged CBM development in the



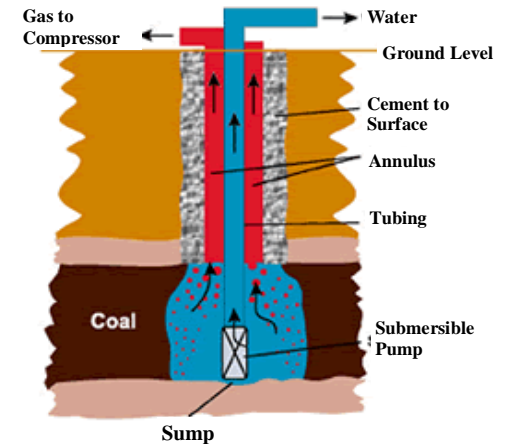
1980's with tax credits. When these credits expired in 1993, CBM production was at 0.8 Tcf per year. Despite concerns that tax credits were required⁴ to sustain the CBM industry, CBM production has continued to increase and now supplies more than 7% or 1.8 Tcf/yr of the 26 Tcf/yr US gas market.

The Powder River Basin in Wyoming is one of a number of areas in the United States where CBM is being actively developed. In this basin CBM production has grown from essentially zero in 1993 to almost one billion cubic feet per day (Bcf/d) or 0.3 Tcf per year in 2003.

It is anticipated that by the end of this decade, western Canadian CBM will also be a significant supplier to the North American market, producing in excess of 1 Bcf/d.

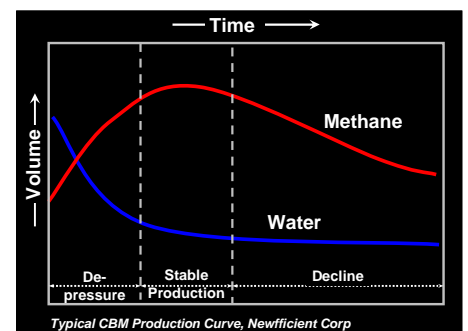
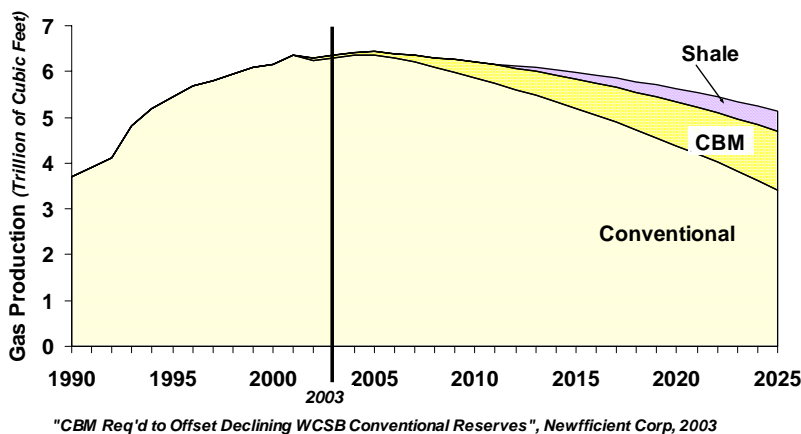
Producing CBM

CBM is marketed and consumed just like conventional natural gas but is somewhat unique in how it is produced. Relieving pressure is the means by which CBM is stimulated to flow from within the coal beds into well bores. Typically, this is accomplished by pumping water out of the coal seam.



The rate of CBM production increases over time as water production decreases⁵, peaking after a few years and then slowly declining. Peak CBM production rates typically range from 50 thousand cubic feet per day (Mcf/d) on the low end to 800 Mcf/d on the high end.

Depending on the local geological and hydrological conditions, produced water varies both in quantity and quality. Generally the deeper coal beds are more saline.



² [The Potential for Coalbed Methane \(CBM\) Development in Alberta, Alberta DOE](#)

³ [Exploration and Development of Natural Gas from Coal, CSUG, 2003](#)

⁴ SPE Canadian Section – March Luncheon Review, 2002,

http://www.spe.org/sections/canada/review_mar_02.html

⁵ [Coalbed Methane - EUB EnerFAOs](#)

Benefits of CBM

If managed appropriately CBM will be a benefit to everyone including the environment and local wildlife. CBM production may provide direct financial benefits for the mineral owners, surface land owners, CBM producing companies, spin-off industries, and all Albertans through royalties and taxation of business revenue. Development of Alberta's CBM resource could not only help maintain Alberta's high standard of living but may also moderate the price of natural gas for consumers.

To realize these benefits the interests of all stakeholders must be aligned. We all need to learn about and understand the CBM industry⁶ and similarly the CBM industry must show utmost respect to all stakeholders⁷. FHOA can play a key role in facilitating dialogue between stakeholders, disseminating information and participating in development of rules and regulations. With coordinated collaboration, CBM development in Alberta should be able to replicate the positive experiences in the United States (eg. CBM as a source of water for the Durham bison ranch below)⁸ as well as mitigate if not avoid all together the negative impacts experienced in some states.



Durham Bison Ranch, Newfficient Corp

⁶ [Natural Gas from Coal Position Paper, CAPP, March 2003](#)

⁷ [Towards responsible coalbed methane development in Canada, CAPP, March 2003](#)

⁸ "Water - A Commodity or Resource?", Newfficient Corp, 5th Annual Unconventional Gas and CBM Conference, Oct 2003, Calgary

Surface Owner Considerations

Coal formations are generally less permeable than conventional gas formations. To optimize recovery of this valuable resource, as many as eight wells per section may be necessary. CBM producers and surface owners will have to work together to minimize disruption of the surface, perhaps by adopting a phase-in policy whereby only a few wells are drilled initially and the results used to determine and justify the necessity for additional wells. In some areas, it may be found that fewer than 8 wells will suffice.

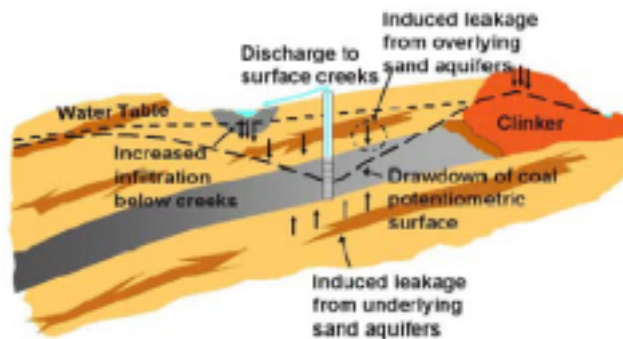
Utilizing low profile well site equipment and minimizing the CBM footprint on the surface is of utmost importance. Some responsive CBM developers are already proceeding in this direction. FHOA understands that APF Energy is directional drilling multiple CBM wells from one well pad and CDX Canada is developing horizontal subsurface drilling technology.

Water associated with CBM production has received much attention in the media of late. Wyoming has had serious challenges in dealing with water produced with CBM. State regulators have apparently responded to the concerns raised and have introduced new regulations and monitoring procedures.

Alberta has regulations in place respecting the disposal of produced water associated with conventional oil and gas. FHOA understands that the Alberta Government is working towards refining the regulations to specifically address CBM.

	Alberta	Wyoming
Amount of Water	Horseshoe Canyon coals are dry	Significant amounts of CBM produced water
Quality of Water	Manville coals produce saline water which is deep-disposed as per standard practices	Produced water is non-saline and is often potable with minimal filtration
Regulation	Extensive quantitative compliance (EUB and Alberta Environment)	Narrative

Generally CBM is produced from coal beds which are significantly deeper than water aquifers into which water wells are drilled. However there are shallow coal beds within the western Canadian sedimentary basin which will be explored and ultimately may be depressurized to produce CBM. Pumping water out of shallow coal seams may lower the local water table and in some instances impact local water wells. Industry and surface owners will have to work together to find and implement location specific solutions.



Noise associated with surface compression of CBM may also be a concern to surface owners if not managed appropriately. CBM developers should work closely with surface owner to ensure that orientation and sound proofing of compressor installations are effective in minimizing noise.

Where Do Freehold Mineral Owners Fit In?

The south half of Alberta is the area most prospective for CBM development and, because almost all of the 5% of Alberta mineral rights owned by individual freeholders are located in this area, individual freeholders hold title to almost 10% of Alberta's CBM (or we hope we do – see 'Who Owns CBM'). In southern Saskatchewan, a much greater percentage of CBM is owned by individual freeholders.

Many freehold mineral owners also own the surface. Those of use who own surface rights are clearly exposed to the same development issues as other surface owners, however we may benefit not just from negotiated compensation for surface rights access from the CBM developer, but also from CBM lease bonus payments, rentals and royalties.

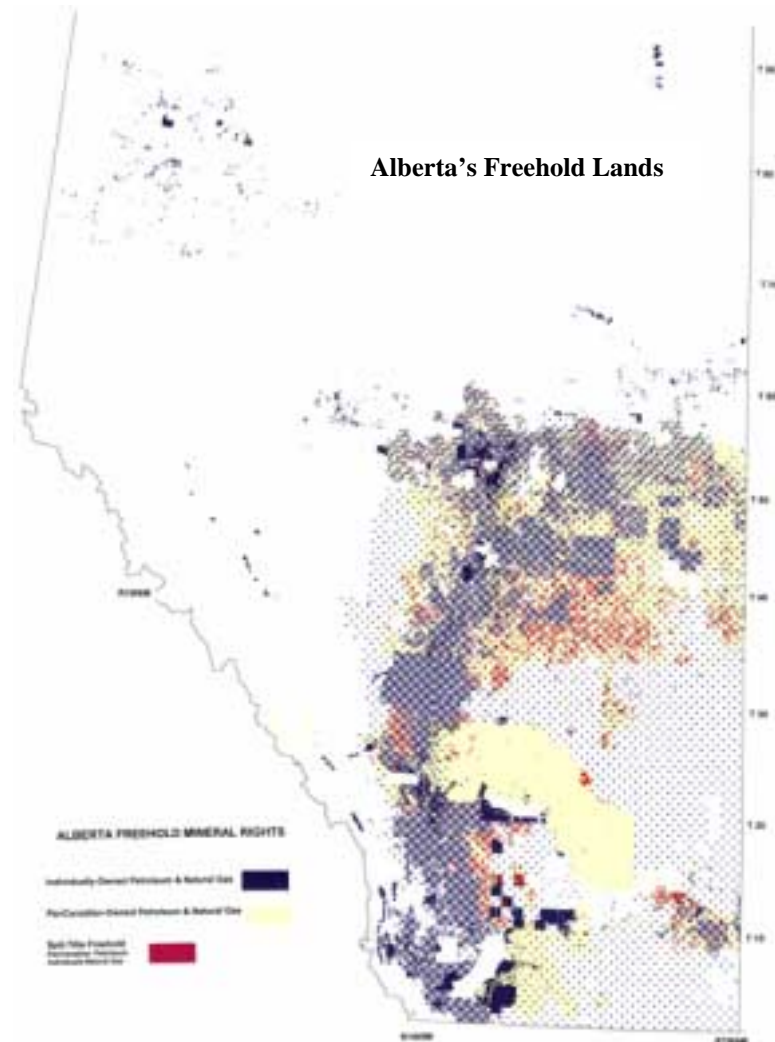
In other cases, the freehold mineral owner no longer holds title to the surface. Apart from our moral responsibility to try to ensure that CBM developers treat the owners of the surface above our CBM fairly and do not damage the environment, CBM development might seem to be a win-win for those of us who no longer own the surface rights. However a landmark decision of the Supreme Court of Canada released on October 30, 2003 suggests that all may not be as simple as it seems.

The case concerned an old fuel site in Quebec City which had been operated by Imperial Oil Limited from the 1920's to the mid-1970's. After Imperial sold the site, a developer acquired it for residential development and hazardous hydrocarbon wastes were discovered. The Quebec Government ordered the developer to clean up the site and was satisfied with the result. The local government then issued permits for development and houses were built. In the mid-1990's, the residents became concerned,

further studies were done, and the site was determined to be unfit for human habitation. The residents sued the local and provincial governments and the developer. The Quebec Government then ordered Imperial to pay for a study to determine what to do. Imperial refused contending that the Government was effectively trying to avoid its own obligations. In its recent decision, the Supreme Court upheld the Government's right to issue 'polluter pay' orders.

Imperial has been forced to pay for a study to determine how to clean-up hazardous wastes which arose from its activities long before Imperial or anyone else recognized the environmental risk associated with these activities. The Supreme Court

Alberta's Freehold Lands



ruling also confirmed the Government's right to order Imperial to pay for the cleanup itself.

What does this have to do with CBM and individual freeholders?

Imperial Oil Limited has operated in Canada for more than a century and has the financial resources to perform whatever clean-ups it may be ordered to perform.

How many other oil companies currently operating in western Canada have been around for a decade, much less a hundred years?

CBM represents a new and exciting resource but, like the refineries and fuel sites operated by Imperial at a

time when oil was a new and exciting resource, the development of CBM may give rise to future problems which are not currently contemplated. If environmental problems arise in the future as a result of CBM development, the CBM developer should pay to resolve the problem under the 'polluter pays' doctrine upheld by the Supreme Court.

If the CBM developer no longer exists and the CBM development was on Crown lands, presumably the Government will pay. Who will pay if the developer is no longer around and the CBM development was on freehold lands?

The Freehold Owners Association does not currently have an answer to this question. FHOA believes this is but one of many questions that needs to be asked and answered in the new rules and regulations for CBM which are currently being developed.

Leasing CBM Mineral Rights

CBM developers are currently piloting a large number of projects throughout Alberta, with some moving into full scale production. Interestingly, these developers have focused their efforts in areas within which the mineral rights are predominantly Crown. In fact, some potential CBM plays that require freehold as well as Crown mineral leases are being overlooked due to uncertainty associated with who owns the CBM beneath freehold lands.

CBM generally costs more to produce than conventional gas due to the greater numbers of wells per section and the associated water production. Production rates from CBM wells are also typically lower than those from conventional gas reservoirs. In those areas where freehold owners have been approached to lease their rights for CBM development, developers have insisted on sliding scale royalties. Typically the royalty rates vary from a low of 5% for production rates of 50

Mcf/d or less to a high of 18% for production rates of 600 Mcf/d or more. Other lessees have proposed caps of 12 ½%.

Sliding scale royalties may be appropriate for CBM development but, in FHOA's view, the industry should not expect to 'have its cake and eat it too'. If the industry wants a freehold owner to 'share the risk' of CBM development by significantly reducing his or her royalty share of production in the event of low CBM production rates, then the industry should be prepared to share the reward with the freeholder by increasing his or her royalty rate in the event of high CBM production rates. A 5 – 18% slide does not do this and a 12 ½% cap is offensive when gas sells for more than \$5 per Mcf. Freeholders should also bear in mind that the lease agreements currently being presented to freeholders ostensibly for the development of CBM secure the rights to all of the freehold owner's minerals.

It may be advantageous for a freeholder to lease CBM separately from conventional petroleum and natural gas so as to retain the option to have his or her conventional resources developed independently of CBM. The development cycle for CBM can be longer than for conventional gas as a result of initial de-pressurization phase (which can take 6 months or longer) and slower production (i.e. lower permeability). Also, unless specifically addressed a conventional petroleum and natural gas lease could be held indefinitely by the CBM producer on the basis of CBM water production only, which again is likely not in the freeholder's best interests. FHOA is currently developing a

"freehold friendly" standard lease in which we are attempting to address these specific conditions.

Who Owns CBM ?

The ownership of CBM beneath freehold lands in Alberta is currently uncertain. The problem relates to the splitting of titles to subsurface minerals which occurred when the Canadian Pacific Railway Company (the CPR) sold land to western Canadian homesteaders at the turn of the last century.

Alberta was the last of the prairie provinces to be settled. Most of Alberta was settled after 1889 when the Dominion Government began to retain all subsurface mines and minerals in homestead land grants. Consequently, most Alberta homesteaders did not acquire the rights to mines and minerals beneath their lands. Only the very earliest of Alberta settlers and those who acquired their homestead lands from the Hudson's Bay Company prior to 1908, or the CPR prior to 1912, acquired subsurface minerals.

The CPR received a grant from the Dominion Government of 25 million acres of land along the right of way of the proposed transcontinental railway in 1881. This land grant included subsurface minerals. The CPR sold farm-sized portions of its land grant to homesteaders to raise monies for railway construction and to encourage



July 1, 1867 – Last Spike Driven into the CPR Railway

traffic on its rail line. For the first 20 years, the CPR sold the land in the same form in which it had been received from the Dominion Government. In the early 1900's, it apparently came to the attention of the CPR that the coal beneath the lands it was selling to homesteaders might be useful to fire the steam engines in its locomotives. Sometime between 1902 and 1904, the railway company began to reserve coal for its own account in land sales to settlers. In approximately 1906 (40 years after the world's first oil boom and 5 years after the first oil well in Alberta was drilled at Cameron Creek), the CPR added petroleum to its reservation. It wasn't until 1912 (30 years after the gas in a water well drilled by the CPR near Medicine Hat blew up destroying CPR property) that the railway company began to reserve natural gas for its own account in land sales to settlers by changing its reservation to include all mines and minerals.

As a result of the CPR's land settlement policies, settlers who acquired homestead land from the CPR:

- before 1902 - acquired title to all subsurface mines and minerals including coal, CBM, petroleum, and natural gas;
- between 1902 and 1906 - acquired title to all mines and minerals except the coal reserved by the CPR; and
- between 1905 and 1912 - acquired title to all mines and minerals except the coal and petroleum reserved by the CPR.

Individual freeholders currently hold title to subsurface minerals beneath approximately 6 million acres in Alberta. The CPR retained rights to coal and petroleum beneath roughly 15% of this land (one million acres). The CPR also retained rights to coal on a substantial but unknown

portion of the remaining 5 million acres.

Most of the CBM in Alberta is owned by the Government of Alberta by virtue of the Dominion Government's transfer of the un-disposed mineral rights beneath approximately 81% of Alberta to the Provincial Government in 1930. The Government of Alberta has recently passed legislation which provides certainty of ownership on Crown lands in situations where one company has leased coal from the Crown and another has leased natural gas. Under terms of this legislation, the natural gas lessee has the right to coal bed methane. The legislation does not apply to freehold minerals.

EnCana Corporation and Fording Inc., the successor corporations to the CPR, have publicly claimed that their ownership of coal in split title situations includes CBM. Many individual freehold owners do not realize there is a dispute over what they own and others do not understand the problem or its implications to them.

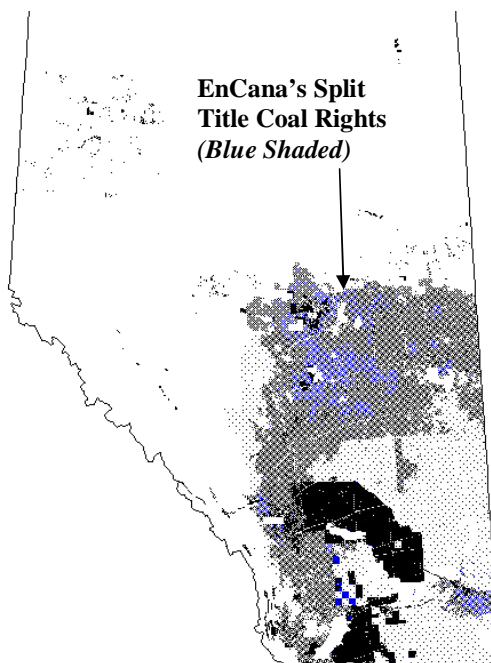
FHOA recommends that all freeholders check the title to their minerals. If your title is to "all mines

and minerals" you own both coal and CBM and you can 'rest easy'. If your title is to "all mines and minerals except coal" then the ownership of CBM beneath your lands is in dispute. If your title is to "all mines and minerals except coal and petroleum", then your ownership of both CBM and natural gas is in dispute.

FHOA understands that most CBM developers share FHOA's view that CBM on lands where title to coal is held by EnCana or Fording belongs to the individual freehold owner of natural gas (ie. all mines and minerals except coal or except coal and petroleum).

FHOA also understands that certain CBM developers are securing lease agreements from individual freehold owners in situations where EnCana or Fording holds title to coal. In the event that CBM is produced and marketed from the freeholder's lands, the CBM developer may pay production royalties to the individual freehold owner. FHOA suggests that individual freehold owners who do not hold title to coal but receive royalties from CBM production maintain a separate account for these royalties until the ownership issue respecting their mineral rights is resolved through litigation or negotiation.

In the dispute as to ownership of hydrocarbons produced from wells on lands where title to petroleum and natural gas is split, EnCana succeeded in convincing the Alberta courts that the entire oil and gas industry thought ownership should be determined at the date of the CPR reservation. Some oil companies apparently weren't part of the entirety. FHOA is aware of a number of instances where oil companies paid royalties to individual freeholders rather than EnCana. These freeholders are now being threatened with litigation unless they pay back tens of thousands of dollars in royalties.



On September 4, 2003, the Supreme Court of Canada granted the freehold owners involved in the gas/petroleum split title issue leave to appeal the decision of the Alberta Court of Appeal. The fundamental issue before the Supreme Court will be whether fugacious substances like water, gas and petroleum can be owned absolutely before they are recovered in a well. The Court of Appeal of Alberta effectively ruled that they could. In FHOA's view, the Appeal Court is wrong and the highest court of appeal in the Commonwealth clearly said so fifty years ago.



The Supreme Court of Canada, Ottawa

CBM is a fugacious substance (it moves about in the subsurface) and if the freehold owners involved in the gas/petroleum ownership dispute prevail at the Supreme Court, it is difficult to see how EnCana and Fording can maintain their current position with respect to CBM ownership.

FHOA's Role

For the past 4 years, the Freehold Owners Association has focused its efforts on providing education and information to freehold owners.

Providing information is fine but there comes a point where telling someone they are being taken advantage of becomes wearisome and the opportunity to do something about the situation presents itself. Now is that time.

The decision of the Supreme Court of Canada in the gas/petroleum

ownership dispute will significantly impact the property rights of many, if not most, of FHOA's members.

At FHOA's annual general meeting in 2001, members were provided with considerable background on the gas/petroleum split title issue and asked to vote on whether FHOA should seek leave to intervene at the Supreme Court in the event the Court of Appeal of Alberta ruled against the involved freehold owners and the Supreme Court granted leave to appeal. The membership overwhelmingly approved a motion authorizing FHOA to seek leave to

intervene after consulting competent legal counsel and after giving due consideration to the association's financial status.

Seeking leave to intervene and

actually intervening at the Supreme Court is not all that expensive. While it would cost several hundred thousand dollars for FHOA to conduct a full legal action to decide any of the numerous legal issues which impact freehold owners and cry out for judicial attention, we estimate that an intervention at the Supreme Court would cost no more than \$20,000.

FHOA does not have \$20,000. We currently have approximately \$13,000 and most of that is earmarked for providing education and information.

As such, the choice is yours.

If you want an association which tries to correct the injustices which have been foisted on freehold owners for the past half century, then please lend your financial support to this very important cause. A successful intervention will benefit all freeholders by clearly demonstrating that freehold owners are prepared to stand together against injustice.

Fifty years ago, the Judicial Committee of the Privy Council clearly stated that "the condition of the substance as it emerges from time to time from the reservoir" determines ownership of hydrocarbons produced from wells on split title lands in Canada. The decision of the highest court of appeal in the Commonwealth didn't stop the CPR from prescribing petroleum leases on split title lands in which it demands a royalty on hydrocarbons it doesn't own. For 50 years, some oil and gas companies have paid royalties to the CPR, PanCanadian and now EnCana rather than to the rightful individual freehold owners of natural gas. The Alberta courts have not only ruled that the CPR's leases are somehow "fair", but that the companies' compliance with these leases has created the "settled expectation" that the Privy Council's conclusion of law is wrong.

The judge in the gas/petroleum ownership trial was impressed by the "plethora of senior lawyers" (17 of them) who represented the involved oil companies. FHOA expects the Supreme Court of Canada to be more impressed by legal argument than by the number or pedigree of the lawyers hired by oil companies. FHOA also expects the Supreme Court to recognize that one reason these 17 lawyers are all singing from the same song book is that the CPR petroleum leases obligate their energy company clients to pay any damages or costs a court might award against EnCana.

If you think the Alberta courts are correct; if you think 'fair' is the proper word to describe the world's largest independent oil company's practice of collecting royalties on something it admits belongs to individual freehold owners, if you think that 50 years of improper practices makes those practices proper; or if you think that our justice system is only for powerful corporations and the rich, then file this newsletter away.

Individually, we all feel helpless in the face of technically complex issues and

expensive lawyers acting for powerful corporations. Collectively, through organizations such as FHOA, we can and should participate in the legal process. If we do not, we will have no one to blame but ourselves for the ugly legacy we leave our children.

Please contribute what you can afford. Twenty-five dollars will help and \$100 will help a lot.

If sufficient funds are not raised from members; if FHOA is denied leave to intervene; if FHOA cannot retain legal counsel with the skill we deem necessary to argue complex property law issues before the Supreme Court; or if the matter is settled, funds raised will be returned to members, applied to next years membership, or retained in a separate account for other legal or regulatory proceedings where FHOA's membership considers it appropriate for the association to intervene.

Upcoming Seminars

FHOA has scheduled information seminars for freehold mineral owners for the fall of 2003 as follows:

- November 19, 2003 from 7:00 to 10:00 pm in the Lacombe Memorial Centre, 5214 50th Avenue, Lacombe, Alberta.
- December 3, 2003 from 7:00 to 10:00 pm in the Elks Hall, 4702 50th Avenue, Camrose, Alberta.

The guest speaker at both seminars will be Mr. Michael Niven of the Calgary legal firm of Carscallen Lockwood LLP. Mr. Niven specializes in general oil and gas and gross royalty trust issues and will speak on issues pertaining to leasing your mineral rights and protecting them after they are leased. Admission cost to either seminar will be \$10 per individual or a new \$25 annual membership.

FHOA's Web Site

FHOA has not yet completed the extensive improvements to our web site which were initiated by the university student we hired last summer under a Federal Government salary matching program. However we have recently heard from a number of members whose mineral rights are being drained in circumstances where they can do nothing about it. These situations have arisen because of the problems so many freehold owners have in understanding the convoluted wording in the offset well clause of CAPL leases.

Offset wells are addressed in a manner which FHOA hopes will lead to a better understanding of offset well clauses and their implications on our revised web site.

In an attempt to prevent further misunderstanding of this complex matter, FHOA intends to upload its revised web site in incomplete form by the end of November.



Letters to the Editor

A number of members have suggested that FHOA institute a 'letters to the editor' policy whereby members or other interested parties can comment positively or negatively on the information provided in these newsletters. If you wish to provide comments on any issue raised in our newsletters or on our web site, we will endeavour to publish your letter, space permitting, in our next newsletter or on our web site. FHOA does however reserve the right to edit all comments.

Membership

As of this writing, more than 2,050 freehold owners have joined our association. Our goal is to grow the membership to 2500 over the next year.

FHOA has historically been plagued by a lack of financial resources. For example, this newsletter which will be available in colour on our web site is being distributed to members in black and white because we cannot afford to print in colour. The directors intend to consider the fees that FHOA charges for annual memberships, seminars and technical service requests at the next board meeting. If you have any comments pro or con with respect to an increase in the fees FHOA charges, please let us know by mail or e-mail

On behalf of the board of directors.

Else Pederson,
President

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