Alberta Energy and Utilities Board

Informational Letter IL 91-11

To: All Oil and Gas Operators and Coal Operators 26 August 1991

COALBED METHANE REGULATION

SUMMARY

There is currently considerable interest in the evaluation of coalbed methane in Alberta. The Energy Resources Conservation Board (ERCB) and the Alberta Department of Energy (Energy) believe that some tests of Alberta coalbed methane production are necessary as a basis for long term regulatory policies. Furthermore, the ERCB and Energy propose that a task group be established to monitor coalbed methane development and recommend appropriate regulatory policies based on Alberta information. In the interim, the preliminary regulatory provisions outlined in the following will be applied, subject to revision when and as needed.

ALBERTA DATABASE

Little evaluation of Alberta coalbed methane has occurred to date. The ERCB and Energy believe that Alberta specific data is necessary as a basis to develop appropriate long term regulatory policies. It would therefore be helpful for a number of small scale production tests to proceed at this time.

FORMATION OF COALBED METHANE TASK GROUP

The ERCB and Energy will seek to establish a task group comprised of industry, government, and public representatives to monitor coalbed methane evaluation and development. The group would develop and recommend appropriate regulatory policies and practices to be applied in the future.

PRELIMINARY REGULATORY PROVISIONS

The ERCB and Energy consider coalbed methane to be a form of natural gas. As a result, all acts and regulations administered by the ERCB and Energy that pertain to natural gas also pertain to coalbed methane. Applicable legislation under the jurisdiction of the ERCB and Energy includes the Energy Resources Conservation Act, the Gas Resources Preservation Act, the Oil and Gas Conservation Act, the Mines and Minerals Act, and regulations related to these acts.

It appears that most ERCB and Energy practices and policies relating to the drilling and production of conventional gas reservoirs can be applied directly to coalbed methane. Some

specific aspects of mineral leasing, drilling, completion and production of wells, data requirements, and experimental schemes are discussed in more detail in the following.

I Crown Mineral Leases

The right to Crown natural gas is governed by the Mines and Minerals Act (Act). In the Act, natural gas and coal are treated as distinct substances and are leased separately. This principle recognizes that natural gas may exist in a variety of reservoir rocks, including coal seams. Energy does not consider a coal lessee as having any right to natural gas except in those cases where sections 65(2) and 92(5) of the Act have been invoked.

In Part 2 of the Act, which pertains to coal, section 65(2) states:

"The Minister, on the recommendation of the Energy Resources Conservation 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 contained in a coal seam in the location of the coal lease."

In Part 5 of the Act, which pertains to Petroleum and natural gas, section 92(5) states:

"An agreement granting rights to which this part applies does not grant the right to natural gas in a coal seam that the Minister has authorized the lessee of a coal lease to recover under section 65(2). "

When these two sections of the Act are invoked, section 65(2) would convey the natural gas rights within the coal seam to the coal lessee and section 92(5) would remove the natural gas rights within the coal seam from the natural gas rights lessee. Both sections of the Act would be administered in tandem and only in those instances where a coal mine operator had applied to the ERCB for the safety reasons specified, or the ERCB was of the opinion it was necessary for conservation reasons, and the ERCB recommended to the Minister that the legislation be applied.

Petroleum and natural gas agreements are continued pursuant to Part 5 of the Mines and Minerals Act. In order for an agreement to be continued, a lessee must demonstrate that the agreement is capable of producing petroleum or natural gas in paying quantity from a zone in the location of the agreement in which rights to that petroleum or natural gas are granted. Petroleum and natural gas agreements will not be continued based solely on the presence of coal.

2 Well Licensing

Applications for well licences must be in accordance with the requirements of ERCB Guide G-33, and state that the purpose of the well is to obtain coalbed methane production from one or more specified geological formations, as listed in the ERCB Table of Formations, Alberta. ERCB Informational Letter IL 82-1 sets out additional well licence application requirements in coal field areas. If desired, the ERCB could maintain and make available a list of wells targeting coalbed methane.

3 Surface Leases

Surface access and surface leases must be acquired from the Crown or private owners in the normal manner. Surface disturbance must be minimized in development and use of the lease. Issues of environmental and social impacts must be addressed and the concerns and objections of directly and adversely affected persons must be addressed as for any other gas well.

4 Well Spacing

Normal gas well spacing of one well per section applies, unless a change is approved under the Oil and Gas Conservation Regulations, section 4.030. The effects on gas recovery, equity, and surface impacts will be considered in any change.

5 Drilling and Completion

Use of standard drilling and servicing rigs, blowout prevention equipment, casing design, and cementing practices will be expected unless application for variance is approved. Such applications must be submitted prior to the filing of well licence applications for drilling, and prior to initial completion for servicing.

6 Production

Production facilities require ERCB approval in accordance with section 7.001 of the Oil and Gas Conservation Regulations. As with drilling, operators will be required to address all environmental and social impacts, and to address objections of directly and adversely affected persons. In particular, handling and disposal of the expected water production and possibly coal-fines need to be carefully planned, and appropriate approvals for disposal schemes obtained. Options for water disposal include treatment and release to the watershed, or subsurface disposal to a compatible formation.

The impact that coal seam dewatering may have on area ground water aquifers must be addressed before large scale water withdrawals commence from any coal seam. If the produced water is potable, there is a possibility that Ground Water Removal permits may be required by the Department of Environment under the Ground Water Development Act and the Water Resources Act.

7 Data Reporting Requirements and Confidentiality

All basic well data including drilling, completion, and production data must be submitted as for conventional oil and gas wells, and will be released as provided for in the applicable existing regulations. For wells classed as confidential under the Oil and Gas Conservation Regulations, section 12.150(l), basic data including logs, cores, samples, routine core analyses, pressure measurements, and flow tests are held confidential for I year from the finished drilling date of the well. Wells which are placed on production or designated as a part of a non-confidential pool may be released earlier.

For an interim period, the ERCB is prepared to classify all analyses of core and drill cuttings

from wells drilled to evaluate coalbed methane potential as "non-routine" under the OH and Gas Conservation Regulations section 11.040(2). All reports or measurements obtained from these core analyses and samples, must be submitted to the ERCB within 6 months of the date of the analyses. These data will be held confidential for I year from the date of the analyses in accordance with section 12.150(5)(a) of the Oil and Gas Conservation Regulations.

To provide a basis for decisions regarding the handling and disposal of produced fluids, gas and water sample analyses must be submitted in accordance with the Oil and Gas Conservation Regulations, section 11.070.

For confidentiality beyond the limits described above, experimental schemes can be applied for as discussed in the following.

8 Experimental Schemes

It is expected that extended testing of initial evaluation wells may be required, and it may be appropriate for certain test data to be held confidential for a period of time. To provide for this, application may be made for experimental schemes, under which the results from flow tests during drilling and extended production tests after completion could be held confidential for a period of time. Certain additional information could also be considered for extended terms of confidentiality.

The ERCB believes that the confidentiality period should be limited to 2 to 3 years from the commencement date of an experimental scheme. This is based on a scenario in which drilling of a well and construction of test production facilities using conventional methods may require in the order of 6 months. Flow testing may require a few months to possibly a year. This would then allow a further 1 to 2-year confidentiality period to protect the investment involved in the pilot project.

Applications for experimental schemes must address the criteria set out in IL-OG 78-12 and must include at least the following information:

- purpose of the Project
- requested term Of approval
- information and data requested to be held confidential
- description of potential environmental impacts

Gas rates during the initial stages of production may be very low and gathering of the gas may not be justified. The ERCB would thus be prepared to consider allowing extended flaring of gas production, provided that no significant environmental damage occurs.

Coalbed methane experimental schemes will be listed in the ERCB's regular monthly listing of experimental schemes (Alberta Approved Projects, Monthly Supplement, ST "Year"-44) available to the public.

The ERCB and Energy believe that a number of evaluation projects will be undertaken in various parts of Alberta in the near future. These are expected to involve only a few wells and hence would likely have minimal environmental and social impacts.

9 Commercial Development

If a project extends to intensive exploration or commercial development and is an area with potentially conflicting land use, then the filing of an overall development plan may be required, particularly if reduced spacing is being contemplated and/or environmental and social impacts are likely to be significant. This issue will be further addressed by the proposed Task Group.

Additionally, although minimized surface disturbance and proper reclamation are expected in any scale of development, these matters will be of particular interest at the commercial development stage.

10 Crown Royalties

The approval of an experimental scheme by the ERCB does not in any way obligate Energy to grant any special royalty consideration.

Questions regarding this informational letter should be directed to Mr. Harold Keushnig of the ERCB's Gas Department at 297-8511 or to Mr. David Luff of the Department of Energy at 427-7749.

<signed by>

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and

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