



## **Operations Update and Management Discussion of Lucy**

- **Recent Activity and History of the Lucy Leases**
- **Chapman Report of May 1, 2008**
- **Final Test Results from the rock cuttings analysis**
- **Experimental License Extension and go forward plans**

**The Corporation believes this property should become one of Kodiak's major assets for production and/or disposition in the next 12 to 24 months.**

Kodiak Energy, Inc. ("Kodiak" or "Corporation"), operating in British Columbia as Kodiak (Bear) Energy, Inc., submitted an application to the Oil & Gas Commission (OGC) for an experimental scheme to test the Muskwa Shale gas potential. July 15, 2008 was the last day for any external party to file a notice to the application – none were received and thus approval is expected soon from the OGC.

Kodiak is currently the operator and an 80% working interest owner of British Columbia Petroleum and Natural Gas (PNG) Lease 44104.

This lease is situated on the Southeast edge of the Horn River Basin and the Muskwa Shale gas prospect. Industry continues to show increased interest in this shale gas play with several comparisons of the Muskwa Shale gas potential as an analogue of the Barnett Shale gas potential.

Kodiak has proposed an experimental Muskwa evaluation program using vertical and horizontal wellbores that will prove up the lease as an extension of the Horn River Basin. The Muskwa can be subdivided into 3 main units and it is the Evie Shale, the lowermost unit, which Kodiak is proposing to evaluate.

### **Recent History on this Lease**

The Corporation has been involved in two previous drilling operations on the lease and was not operator at that time. In Q4 2006, Kodiak farmed in (pay 10% to earn 7.5%) on a drilling operation in the Lucy (Gunnell) area. This first drilling operation was designed to target a Middle Devonian reef prospect. The drilling operation had several operational problems and was unsuccessful on the reef prospect. After performing an internal review of the seismic and drilling data, it was determined there was a seismic anomaly on the Southern half of the lease.



This anomaly was identified on several different seismic lines and the decision was made to drill a well on the Southern half of the lease to evaluate both the anomaly as the primary target and the Muskwa Shale as seen in the first well, and not evaluated by the operator at that time.

In Q3 2007, Kodiak served the partners with an independent operations notice with the intention of increasing its working interest in the lease. Kodiak was able to increase its working interest in the lease to 80%. However, that process required a substantial amount of landman work to clean up the title and this was recently completed.

In Q1 2008, the second drilling operation was completed and the vertical well was cased. It was determined that the Middle Devonian seismic anomaly was not a reef buildup and the wellbore was cased due to **encountering significant gas shows in the Muskwa formation plus having a formation thickness of approximately 60 meters.**

As a result of these positive results, Kodiak and partners applied to the OGC to extend the lease in the experimental scheme format.

#### **Part 1 – Muskwa Shale Gas – Excerpts from “Chapman Prospective Resources Report” Work Program (Discussion Section)**

During Q4 2008, Kodiak is planning to perforate, fracture and test the Evie Shale in well a-79-A to determine the deliverability of this zone from a vertical well bore. In 2009, Kodiak intends to drill a horizontal leg into the Evie Shale from well d-90-A and perform a multi-stage completion. This would enable a comparison between the productive capabilities of horizontal versus vertical completions.

#### **Resource Potential (Discussion Section)**

Kodiak has prepared an assessment of the prospective resources of this work program for the Evie gas shale. For the low case, we considered only the free gas in the zone and estimated this to be approximately 16 Bcf/section of original gas in place. For the high case, we used published resource estimates provided by an operator in the Horn River Basin, adjusted to the shale thickness in this part of the basin which resulted in approximately 48 Bcf/section of original gas in place. For our best estimate, we took the average of high and low estimates, which was 32 Bcf/section of original gas in place. From published reservoir parameters provided by the British Columbia Government, we estimated the recovery factor to be 55% and surface loss to be 10%.

Based on this data, we have established an estimate of total marketable prospective resources for this project to be 3,011 MMscf for the low estimate, 10,322 MMscf for the best

estimate and 17,635 MMscf for the high estimate, based on the drainage area for the horizontal completion to be twice of the vertical completion.

### **Productivity Estimates (Discussion Section)**

Initial production rates for the vertical completion were estimated to be 0.5 MMscf/d (low estimate), 0.75 MMscf/d (best estimate), and 1.0 MMscf/d (high estimate). Initial production rates for the horizontal completion were estimated to be 1.0MMscf/day (low estimate), 2.0 MMscf/d (best estimate), and 3.0 MMscf/d (high estimate). These estimated initial production rates are based on reported rates from operators in the Horn River Basin.

A full copy of the Chapman report is available on the company's website at [www.kodiakpetroleum.com](http://www.kodiakpetroleum.com).

### **Part 2 – Analysis of Muskwa Shale Gas Rock Cuttings**

Kodiak contracted an industry recognized shale gas assessment laboratory to prepare and analyze the drill cuttings from the well drilled in Q1 2008 in order to evaluate the Muskwa Shale interval for shale gas potential. Kodiak's Lucy (Gunnell) lease is situated on the Southeast edge of the active Horn River Basin area.

The shale gas assessment is conducted by performing various tests on the rock cuttings that were obtained while drilling the well in order to determine the type, quality and amount of adsorbed gas and free gas.

**Tmax** is an indicator of the temperature at which the maximum rate of generation of hydrocarbons occurs. The most thermally mature shales have a strong likelihood of containing only dry gas. Two specific measurements were obtained which indicate the Muskwa (Evie) rocks are over mature in respect to the oil window. This data places the Kodiak shale gas samples in the gas window. Typing of the organic material could not be conducted due to the over maturity. This is consistent with industry and government published data indicating a dry gas scenario similar to the Keg River dry gas pool 3 miles to the northwest that underlies the Muskwa interval.

There is a positive correlation between **Total Organic Carbon (TOC)** content and total gas content of a prospective shale gas formation. Previously published industry and government data shows Devonian-Mississippian rocks have a TOC content ranging from 0.9 % to 5.9% with an average TOC of 3.1%. Total organic carbon content for the Kodiak well ranges from 2.2% to 5.7% with an average of 3.7%. This places the Kodiak shale samples in the median to high range.

The above data, in conjunction with the reservoir thickness and temperature, is used to determine the amount of adsorbed gas associated with the organic material. Pressure data from the offset Keg River gas pool was also used for the calculation. At the assumed reservoir pressure, the adsorbed gas capacity is approximately 20 scf/ton. Published industry data shows a gas capacity range of 9.6 to 16 scf/ton. These findings would suggest that the Kodiak well is on the high side of the adsorbed gas range.

**X-Ray diffraction** was also conducted in order to qualify and quantify the mineralogy of the Kodiak Muskwa interval. Mineralogy has a major impact on the total gas capacity. Carbonate rich samples tend to occur adjacent to carbonate platforms and commonly have lower TOC contents and porosity. Towards the middle of the basin, the silica and TOC contents tend to increase. An increase in silica content tends to favor fracture enhancement, although the relationship of silica content and porosity is not conclusive. The samples in the Kodiak well had a silica content ranging from 26 to 36% with an average of 31.2%. This is consistent with the proximity to the carbonate platform. The clay content is typical for Muskwa shales with no indication of any swelling clays. Published data shows the Muskwa to have an average silica content of approximately 55%.

The most important conclusion from the drill cutting analysis is that the information received continues to support the evaluation of Kodiak's Muskwa (Evie) Shale gas prospect. The laboratory data is consistent with other public industry and government data on the Muskwa shales. It should also be noted that the numbers obtained on the lab analysis of drill cuttings may be conservative due to the nature of sampling drill cuttings on a drilling rig. The significance of lower silica content is not known but the range present in the Barnett Shale would suggest that it is not a serious issue. Another significant point is that all three wells on the Kodiak lease drilled deep enough to penetrate the Muskwa shales and had elevated gas detector readings while penetrating the shales.

**The prospect is still in the early stages of delineation. However, based on well cuttings and drilling data, Kodiak's internal technical analysis has estimated the volume of adsorbed and free gas in the Kodiak Muskwa (Evie) shales to have a potential reserves range of 32 bcf to 48 bcf per section with internal median estimate of 41 bcf per section. We estimate, based on a 20% recovery factor on the 3 sections of land, a range of 19.2 bcf to 28.8 bcf gross recoverable contingent resources.**

In order to calculate this number, the Corporation used all of the lab analysis findings and wellbore information obtained during the drilling operation. For reference, this internally calculated volume is between the "best" and "high" calculations listed in the Chapman report that only had the TOC analysis and industry available data.



Further appraisal activity is required before these estimates can be finalized and establish commerciality.

### **Part 3 – Experimental Scheme License Extension and Go Forward Plans**

The Corporation expects to get final experimental license in the near future. This license allows Kodiak and partners to continue with testing the best development methodology for the Evie/Muskwa Shale on the lease. This type of experimental scheme lease extension has several advantages including a **3 year confidential period for drilling and testing results** and support for an application into the Net Profit Royalty Program. This Program was primarily established to promote technically complex (including shale gas) and/or remote infrastructure projects in British Columbia.

Kodiak's experimental scheme application was approved based on a test program using vertical and horizontal evaluation techniques to test the Muskwa Shale gas potential on the lease. These evaluation techniques have been utilized recently in the heart of the Horn River Basin and not on the periphery of the basin where the Kodiak lease is located.

**Kodiak's proposed work program would allow for early production into a pipeline in order to monitor long term deliverability rates and pressures of horizontal and vertical test wells on the periphery of the Horn River Basin.**

**These results would be some of the first commercial production results for a Horn River Basin Shale gas project**, provide information to help define the effective exploration area of the Basin, and assist in validating adjoining properties in a divestiture process, should that occur.

The current intention is to perform the following work commitments for the license. The target dates are subject to change as new information becomes available:

**Q4 2008 and Q1 2009** – Perforate the Muskwa intervals, perform a vertical staged shale fracture treatment, test and evaluate pressures and production and, if economical, equip and tie in well to pipeline.

**Q4 2009 and Q1 2010** – Drill and case a 1,000m horizontal leg from an existing cased vertical well on the lease, perform a horizontal staged shale fracture treatment, test and evaluate pressures and production and, if economic, equip and tie in well to pipeline.



Kodiak may accelerate the schedule if the results of the first program are successful in commercial volumes of gas. In that case, the horizontal test may also be completed in the 2009 winter work season.

#### **About Kodiak**

Kodiak Energy, Inc. is a Calgary based publicly traded oil and gas development company focused on creating a portfolio of North American assets that offer production opportunities and asset growth through exploration. Kodiak has lease holdings in Montana, southeastern Alberta, northeastern Alberta and high impact prospects located in the central Mackenzie River Valley of the Northwest Territories, Canada and in northeastern New Mexico.

This operations update and management discussion contains forward-looking statements. The words or phrases "would be," "will" "intends to," "will likely result," "are expected to," "will continue," "is anticipated," "estimate," or similar expressions are intended to identify "forward-looking statements". Actual results could differ materially from those projected in the Corporation's proposed oil and gas related business. The Corporation's business is subject to various risks, which are discussed in the Corporation's filings with the US Securities and Exchange Commission and with Canadian securities commissions. The Corporation's filings may be accessed at [www.sec.gov](http://www.sec.gov) or at [www.sedar.com](http://www.sedar.com).

The information in the Engineering Report referred to herein contains the terms "prospective resources". Kodiak advises investors that, although these terms are recognized and required by Canadian securities regulations (under National Instrument 51-101 Standards of Disclosure for Oil and Gas Activities), the US Securities and Exchange Commission does not recognize these terms. Investors are cautioned not to assume that any part or all of the resources in this category will ever be converted into reserves. In addition, "prospective resources" have a great amount of uncertainty as to their existence, and economic and legal feasibility. It cannot be assumed that any part of a prospective resource will ever be upgraded to a higher category. Under Canadian rules, estimates of prospective resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for a "preliminary assessment" as defined under National Instrument 51-101. Under US rules, investors are cautioned not to assume that part or all of a prospective resource exists, or is economically or legally recoverable.

Statements made herein are as of the date of this operations update and management discussion and should not be relied upon as of any subsequent date. The Corporation cautions readers not to place reliance on such statements. Unless otherwise required by applicable law, we do not undertake, and we specifically disclaim any obligation, to update any forward-looking statements to reflect occurrences, developments, unanticipated events or circumstances after the date of such a statement.

Further information relating to Kodiak may be found on [www.sedar.com](http://www.sedar.com) and [www.sec.gov](http://www.sec.gov) as well as on Kodiak's website at [www.kodiakpetroleum.com](http://www.kodiakpetroleum.com).

The TSX Venture Exchange has not reviewed this operations update and management discussion and does not accept responsibility for the adequacy or accuracy of this release.