

# PEYTO Energy Trust

## President's Monthly Report

December 2009

From the desk of Darren Gee, President & CEO

Wow, 2009 is just about over! Where did the time go, didn't we just start this year? Maybe Einstein got it backwards. The older I get the more gravity seems to increase, which according to Albert's theories should cause time to slow down, but it almost appears the reverse is true; time is speeding up. Or perhaps it's more like the difference between a good movie and a bad movie, the boring one taking forever while the good one zooms to a finish. That would imply 2009 was a good year, which by some measures, like gas prices, activity levels and the economy, is all wrong. Yet at Peyto, it feels like a good year. Results were good, efficiencies strong, opportunities abundant. If the analysis of the year confirms these feelings, we may be wishing for a sequel in 2010.

As in the past, this report includes an estimate of monthly capital spending, as well as our field estimate of production for the most recent month (see Capital Investment and Production tables below).

### Capital Investment

2009 Capital Summary (millions\$ CND)\*

|                 | Q1        | Q2       | July     | Aug       | Sept     | Q3        | Oct       | Nov | Dec | Q4        |
|-----------------|-----------|----------|----------|-----------|----------|-----------|-----------|-----|-----|-----------|
| Land & Seismic  | 0         | 0        | 1        | 0         | 3        | 4         | 0         |     |     | 0         |
| Drilling        | 7         | 3        | 6        | 7         | 5        | 18        | 3         |     |     | 3         |
| Completions     | 4         | 0        | 2        | 3         | 3        | 8         | 4         |     |     | 4         |
| Tie ins         | 2         | 0        | 0        | 1         | 2        | 3         | 3         |     |     | 3         |
| Facilities      | 1         | 1        | 0        | 0         | 0        | 0         | 0         |     |     | 0         |
| Drilling Credit | 0         | 0        | 0        | 0         | -3       | -3        | -1        |     |     | -1        |
| <b>Total</b>    | <b>13</b> | <b>5</b> | <b>9</b> | <b>10</b> | <b>9</b> | <b>29</b> | <b>10</b> |     |     | <b>10</b> |

\*This is an estimate based on real field data, not a forecast, and the actual numbers will vary from the estimate due to accruals and adjustments. Such variance may be material. Tables may not add due to rounding.

### Production

2009 Production ('000 boe/d)\*

|              | Q1 09       | Q2 09       | Jul         | Aug         | Sept        | Q3 09       | Oct         | Nov         | Dec | Q4 09 |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|-------|
| Sundance     | 15.9        | 15.2        | 15.1        | 14.5        | 14.9        | 14.8        | 16.0        | 16.0        |     |       |
| Kakwa        | 2.0         | 1.7         | 1.7         | 1.9         | 1.8         | 1.8         | 1.8         | 2.7         |     |       |
| Other        | 1.3         | 1.1         | 1.2         | 1.2         | 1.2         | 1.2         | 1.1         | 1.2         |     |       |
| <b>Total</b> | <b>19.1</b> | <b>18.1</b> | <b>18.0</b> | <b>17.6</b> | <b>17.9</b> | <b>17.8</b> | <b>18.8</b> | <b>19.9</b> | -   | -     |

\*This is an estimate based on real field data, not a forecast, and the actual numbers will vary from the estimate due to accruals and adjustments. Such variance may be material. Tables may not add due to rounding.

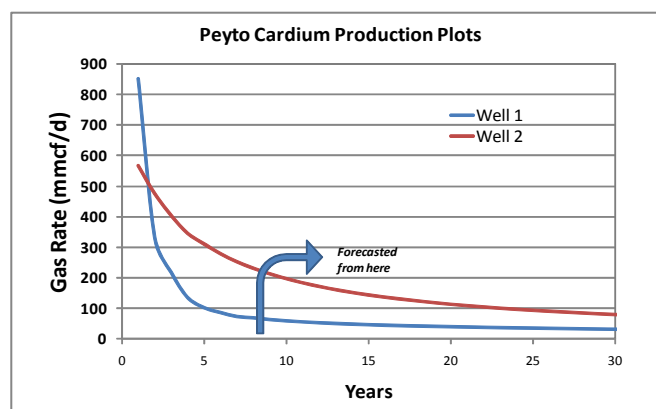
### Big Box Office Weekend

The opening weekend for one of this year's most highly anticipated blockbusters, *New Moon* (the second Twilight vampire movie), did not disappoint. It set records for opening night and weekend revenues at \$26 and \$142 million respectively. Well on its way to a very quick payout and big return for Summit Entertainment (production costs were only \$50 million). It may even give the all time box office leader *Gone with the Wind* a run for its money (which has grossed \$1.45 billion – inflation adjusted since 1939).

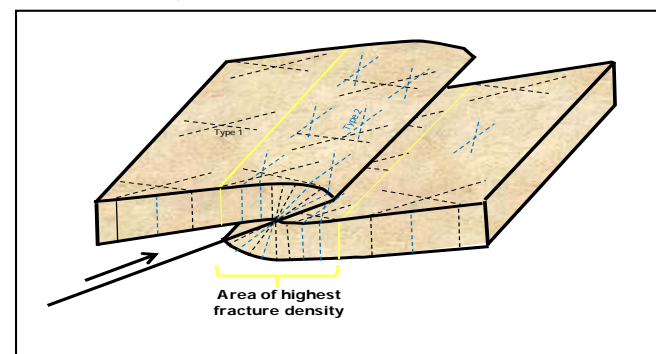
But it got me thinking about the different ways in which a big rate of return or IRR (Internal Rate of Return) can be

generated; not just in the movie business, but in the natural gas business as well. Sometimes a long steady stream of revenue is best and sometimes a quick blast and slow trickle can be just as effective. Both in fact, can generate the same IRR, but there are unique advantages to each revenue profile.

Take the following two tight gas wells as examples. Both of these are Peyto Cardium wells in Sundance so the capital cost to drill, complete, equip, tie in, along with an allocation of land, seismic and facilities would run around \$1.75 million (this would basically cover the full cycle economic evaluation). Both wells would also generate a very nice 65% IRR at \$5/GJ gas and \$70 WTI (as a proxy for condensate pricing). But despite generating the same IRR for the same capital, they come on at very different initial rates and have different decline profiles (figure 1). These different profiles also drive different funding considerations and different resource metrics.



Well #1 is a faulted Cardium well (see figure 2) that has a relatively tight or low matrix permeability feeding that fault system. Even with a large fracture stimulation during the completion, to connect to the natural fractures that the fault creates, the well will ultimately deplete at the rate the matrix permeability provides (permeability being the measurement of a rock's ability to transmit fluids).



# PEYTO Energy Trust

## President's Monthly Report

December 2009

From the desk of Darren Gee, President & CEO

Well #2 on the other hand has hit a section of the shoreline with coarser grained sandstone and thus has higher matrix permeability. It too needed a large fracture stimulation around the wellbore but the higher permeability supports a higher stabilized rate.

The reserve, production and economic metrics comparing the two are as follows:

|                                   | <u>Well #1</u> | <u>Well #2</u> |
|-----------------------------------|----------------|----------------|
| Capex (millions \$)               | \$ 1.75        | \$ 1.75        |
| Reserves (bcfe)                   | 1.4            | 2.8            |
| Initial Prod. (30 day IP, mcfe/d) | 2500           | 620            |
| Yr 1 Ave (mcfe/d)                 | 850            | 560            |
| Production cost (Yr 1) (\$k/boed) | \$ 12.4        | \$ 18.8        |
| RLI (yrs)                         | 4.5            | 13.7           |
| F&D (\$/mcfe)                     | \$ 1.25        | \$ 0.63        |
| NPV (8% disc, millions \$)        | \$ 2.06        | \$ 5.17        |
| Profit/Investment Ratio (5% disc) | 1.6            | 4.1            |
| PIR (10% discount)                | 1.0            | 1.6            |
| PIR (20% discount)                | 0.6            | 1.2            |
| IRR (%)                           | 65%            | 65%            |
| Simple Payout (yrs)               | 1.1            | 2.0            |

As indicated above, well #2 makes more money and has higher reserves (thus lower F&D costs) but is less productive initially making it harder to grow production with these types of wells. That is also evidenced by its higher cost to build each producing boe/d, as measured at the end of the first year. Well #2 also takes longer to payout.

Well #1 on the other hand, makes less money (profit to investment ratio is lower), has more production initially making it easier in the early days to grow production but ultimately captures fewer reserves and has a much shorter reserve life.

Both wells generate the same internal rate of return but one of them requires leverage and therefore becomes sensitive to the cost of capital or time value of money.

Perhaps one of the advantages of the horizontal multi-stage frac technology is that we could potentially achieve the best of both worlds. If Peyto can target the horizontal wells in the better quality matrix reservoir which will give us the long reserve life and greater profit ratio, but still achieve the high initial rates and quick payout, making the investment less sensitive to cost of capital, then it will be like getting a big box office weekend and a long run time. Sorta like **"Gone with the New Moon."**

### Activity Levels and Commodity Prices

A unitholder recently emailed me an analysis of Rig Productivity done by Bentek Energy that suggested "natural (US) gas production is now a function of rig efficiency, not the absolute number of rigs." The premise of the analysis being that the production gains from each horizontal shale gas well were now so great that traditional correlations between rig count and production rates no longer hold. While that statement may have some truth to it, there are some significant caveats to that conclusion.

1. Horizontal rigs may be able to add more production per well drilled, but each well takes longer to drill and introduces significantly more drilling risk than a vertical well equivalent. For example, our Cardium horizontal well took approximately 25 days to drill and another dozen or so to complete. Whereas a typical vertical well only takes 10 days to drill and 5 or 6 to complete. The multiples that are being seen in production rate compared to vertical wells are also being seen on the drilling times. Maybe not exactly the same, but still significant. Even if it takes 3 times as long for 3 times the costs and yields 5 times the production rate, the multiple affect is still reduced.
2. The production gains from the new horizontal wells will decline at much steeper rates than traditional vertical wells. At Peyto we've experienced firsthand the effect of steep initial declines on growing or even maintaining production levels. As that "decline treadmill" speeds up, more and more wells need to be drilled to be able to hold production flat, let alone grow it.
3. The economic returns still have to justify the capital investment. A recent analysis by Bernstein Research concluded that the threshold or breakeven cost of this new supply is much higher than companies are claiming in their individual well economics. Evidence of that is showing up in rising F&D costs. I'm hearing and reading more and more independent analysis suggesting that those breakeven economics (full cycle) are at much higher gas prices and that current activity is still being driven more by the need to validate mineral lease agreements and honor those contracts rather than generate a profit.

Perhaps one of the most compelling bits of evidence that breakeven prices are higher than the current spot is from what we're hearing from the gas trading desks. Every time the futures price gets over \$6, this continents largest gas producer is hedging.