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*Investment Analysis for Intelligent Investors*

February 16, 2009

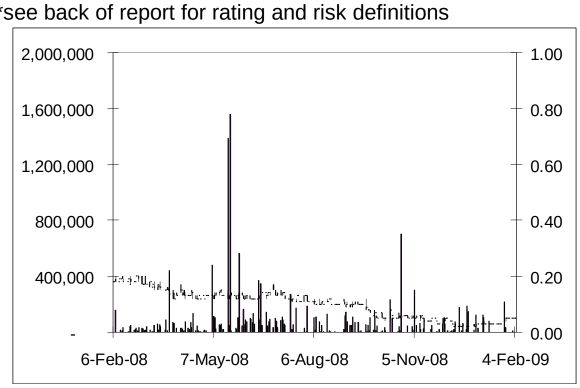
# Derek Oil and Gas Corporation (TSXV: DRK) – Commencing steam generator project to increase production

**Sector/Industry: Oil & Gas** **www.derekoilandgas.com**

**Market Data (as of February 16, 2009)**

| | |
|---|---|
| Current Price | C$0.04 |
| Fair Value | C$0.21 (↓) |
| Rating* | HOLD (↓) |
| Risk* | 5 (Highly Spec) |
| 52 Week Range | C$0.02 – C$0.20 |
| Shares O/S | 59.36 mm |
| Market Cap | C$2.37 mm |
| Current Yield | N/A |
| P/E | N/A |
| P/B | 0.13 |
| YoY Return | -77.8% |
| YoY TSX | -64.2% |

*see back of report for rating and risk definitions




## Investment Highlights

- The company was expecting to produce about 240-320 bpd (gross) from its 12-well program, targeting the Newcastle reservoir, completed in 2007. However, production levels in 2008 were significantly below expectations (we estimate that total production in 2008 was around 15 – 20 bpd). The company attributed the lack of production response to the lack of steam capacity and under performing artificial lift.
- As a move to add steam generating capacity, the company recently announced it secured the use of two 50 MM Btu/hr generators and ancillary equipment. Management expects production to increase significantly within six months of the commencement of steaming.
- In addition, the company also secured the use of 12 beam pumping units. The company believes that the change in artificial lift from progressive cavity to beam pumping units will give them a reliable method to produce.
- The company appointed Robert Hurkmans as Chief Operating Officer. Mr. Hurkmans has over 37 years experience in the oil industry and specializes in improving the drilling/production economics of tertiary recovery projects (with an emphasis on steam soak/flood technology) such as Derek's LAK Ranch project.
- Cash at the end of Q2-2009 was $0.05 million. The company had a working capital deficit of $0.51 million. Subsequently, Derek secured loans of US$0.34 million to fund costs associated with the transportation of the two generators to the site, and obtaining the beam pumping units.
- We estimate the company will need to raise an additional $2.5 million in 2009 to fund working capital and the proposed steam generator project.

**Key Financial Data (FYE - April 30)**

| (C$) | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 (6 mo) |
|---|---|---|---|---|---|---|
| Production Revenues | - | - | - | - | - | - |
| Net Income | (1,569,893) | (1,375,553) | (1,063,257) | (1,367,264) | (1,329,559) | (440,867) |
| EPS | (0.06) | (0.04) | (0.03) | (0.03) | (0.03) | (0.01) |
| Cash + Short-term Inv | 632,700 | 1,008,208 | 1,652,370 | 599,374 | 68,903 | 48,402 |
| Oil and Gas Assets | 13,814,938 | 14,194,246 | 14,438,903 | 17,142,700 | 18,067,924 | 18,552,343 |
| LT Debt | - | - | - | - | 329,994 | 329,994 |
| Assets | 14,654,434 | 15,285,700 | 16,239,458 | 17,921,212 | 18,363,976 | 18,785,422 |

Derek Oil & Gas Corporation, based in Vancouver, Canada, is an oil exploration, development and production company. DRK is currently the operator of an 8,000-acre property (LAK Ranch property) located in Weston County, Wyoming, on the eastern margin of the Powder River Basin, one of the most petroleum rich basins in the Rocky Mountains.



PLEASE READ THE IMPORTANT DISCLOSURES AT THE BACK OF THIS REPORT

***Progress since our initiating report***

At the time of our initiating report in June 2007, the company had just completed a 12-well program (eight producers and four injection wells) targeting the Newcastle reservoir on a small area (32 acres) of the 8,000 acre LAK Ranch Field. Derek has a 50-50 partnership with SEC Oil and Gas for the 12-well program (the company's interest on the total field apart from the 12-well program is 95%). SEC's interest in the 12-well program will drop to 40% after payback. Based on an average initial production (IP) estimate of 30-40 bpd from each of the eight new producer wells, we were expecting the 12-well program to produce about 240-320 bpd (gross).

Although production commenced shortly after the completion of the 12-well program, production rates were significantly below expectations. The company announced in October 2007, that they expect production to reach 240-300 bpd after the wells were steamed for four months, and, in December 2007, the company announced the performance results (shown below).

| Month/Year | Daily Average Combined Production for Month (bopd) | Total Combined Shipments During Month (bbls.) | Value of Oil Shipped During Month (US$$) |
|---|---|---|---|
| August-07 | 18.00 | 482.81 | $ 31,574.08 |
| September-07 | 15.83 | 243.31 | $ 16,692.53 |
| October-07 | 25.84 | 958.78 | $ 69,353.16 |
| November-07 | 54.90 | 1,862.00 | $ 130,340.00 |

Source: Derek Oil and Gas

Although production was below expectations, production levels increased significantly during August – November 2007, as the reservoir received more steam. The company was expecting production to increase significantly in the next several months as the reservoir heated up. However, production did not increase as expected (we estimate that total production in 2008 was around 15 – 20 bpd). Derek management attributed the lack of production response to the lack of steam capacity and under performing artificial lift (progressive cavity pumping units).

The company has now redesigned their 12 well program from a central injection well surrounded by producing wells, to an up-dip injection well pattern. Considering that the formation dip (of the Newcastle sandstone formation) is about 30°, we believe the up-dip injectors could lead to increased production. Also, the fact that the company's existing horizontal producer 1-P has experienced production rates of 70 bpd in the past when all of the steam capacity (from the company's 25 MM Btu/hr generator) was dedicated to its three up dip injectors, indicates that the company's new strategy could result in positive results.

The company took the following initiatives to pursue its new strategy:

**Obtains Use Of Steam Generators** - As a move to add steam generating capacity, the company announced, in July 2008, it secured the use of two 50 MM Btu/hr generators and ancillary equipment from a U.S. federal government agency for a five year period. These generators are expected to give the company's existing steam generating capacity a six-fold increase. The company intends to achieve the following through the steam generator project:

- Increase production significantly within six months of the commencement of steaming
- Increase production from the existing horizontal producer 1-P, which is producing 25 bpd.
- Return all the idle and shut-in wells to producing status
- Derek's existing 25 MM Btu/hr generator, which is over 40 years old, will be made portable and utilized for steam soaking wells beyond the currently designated project area

In November 2008, Derek announced that both generators were disassembled and moved to the LAK Ranch site. The generators were placed on a permanent pad and all materials to house the two generators were delivered. Management expects to refurbish, reassemble, install, and have at least one generator on-line in early/mid 2009.

**Two 50 MM BTU Steam Generators Being Delivered to the Site**


Source: Derek Oil and Gas

The start up cost of this project is estimated to be about US$0.75 million. The company secured a loan of US$0.21 million to pay for the transportation of the two generators to the site. Derek currently has to obtain the necessary environmental permits, reassemble the generators with soft water/gas/electrical/steam hook ups, install a winterized building measuring approximately 60 feet by 160 feet by 24 feet, and upgrade the generators with the latest fuel efficient burner equipment to conserve fuel consumption.

**Obtains 12 Beam Pumping Units -** In December 2008, the company announced that it has secured the use of 12 beam pumping units from a U.S. Government agency to improve productivity, bottomhole efficiency and steam drive response. The company's existing artificial lift consists of progressive cavity pumping units which are not performing, and will not withstand the high temperatures during a thermal recovery project. The company believes that artificial lift revision from progressive cavity to beam pumping units will give them a reliable method to produce.

Six of these beam pumping units will be deployed on the existing pilot vertical steam drive production wells, and the remaining six units will be utilized later in 2009. The cost of this project is about US$0.125 million, which is expected to be financed by a loan (details are provided in the financials section).

**Timeline –** Our discussions with management indicated that the company intends to commence their steam generator project in the summer (after it completes the necessary financings). If this project is effective, production is expected to increase significantly within six months of the commencement of steaming, which is expected by the end of 2009, or early 2010.

***Reserve Estimates***

According to Petrotech Engineering Ltd., the company had 10,165 bbl (gross) of proved reserves, and 1.95 mm bbl (gross) of probable reserves as of April 2008. The net asset value (discounted at 10%) of the reserves was estimated at $21.54 million. However, these estimates were based on WTI crude prices of over US$115/bbl for 2008+. As prices have dropped significantly since April 2008, the NAV would have been lower if current price forecasts were used.

In comparison, the project had 72,000 bbl (gross) proved reserves, 2.20 mm bbl (gross) probable, and 15.36 mm bbl (gross) possible reserves as of April 2007. NAV (at 10% discount rate) was estimated at $39.78 million. When asked why they omitted possible reserve estimates in their 2008 report, Petrotech informed us that it was because it is still a pilot project, and possible reserves are not required to be reported in Form 51-101.

***Additions to management and board of directors***

In May 2008, Derek announced the resignation of Mr. George Eynon from the Board of Directors. Biographies of new appointments, as provided by the company, since our initiating report follow:

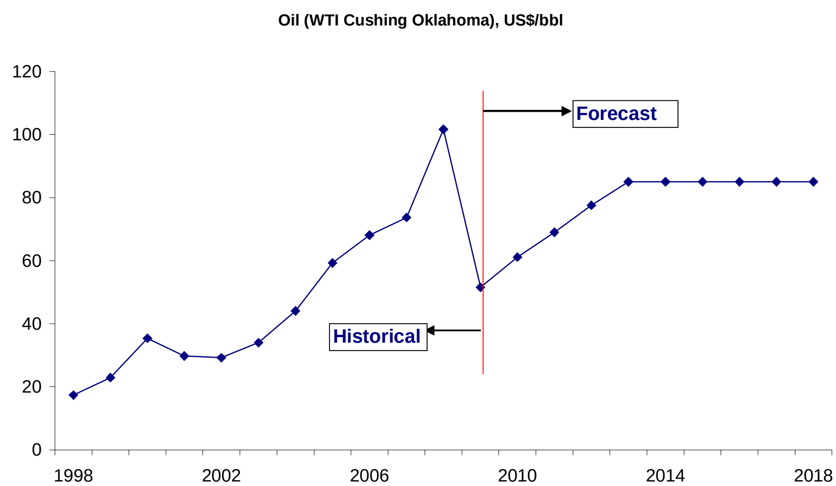
**Mr. Robert Hurkmans - Chief Operating Officer**
Mr. Hurkmans joined Derek after spending the past seven years with Occidental Petroleum Corporation ("Oxy") as a Production and Drilling Engineer with their successful Elk Hills project and newly acquired Mukhaizna heavy oil field project. Mr. Hurkmans has over 37 years experience in the oil industry and specializes in improving the drilling/production

economics of tertiary recovery projects (with an emphasis on steam soak/flood technology) such as Derek's LAK Ranch project. He has worked on thermal projects in California (Midway Sunset, Belridge/McKittrick, Cymric, Kern River/Kern Front, Santa Maria/Cat Canyon, Arroyo Grande and the Brea/Yorba Linda). He was on a thermal horizontal drilling/completion team for Shell Oil Co and drilled over 150 wells in California. Mr. Hurkmans designed and drilled/completed the first thermal horizontal producer for Oxy USA that resulted in more than doubling the production as compared to the best vertical producer. Mr. Hurkmans reduced drilling costs and overall capital and operating costs on the Midway Sunset project by up to 30%. He won the ARCO Award for reducing drilling costs at Midway Sunset, the Shell Oil Company Award for coil tubing/slimhole drilling at Belridge/McKittrick and was a finalist for the Occidental Engineering Excellence Award in 2001 and 2003 for applying large HF/HCl acid treatments on horizontal wells at Elk Hills, California.

**Mr. Greg Amor - Chief Financial Officer**
Mr. Amor has been with Derek for the past four years as their Corporate Controller and for the past fourteen months as their Chief Financial Officer. Greg is a Chartered Accountant with 19 years experience with the resource industry. He has held senior management positions with numerous public resource companies. He has raised $20 plus million in financing for public companies.

***Commodity Price forecasts***

The global economic slowdown has resulted in revisions to near-term oil price forecasts. The global demand for oil is expected to drop YOY in 2009, due to recession in developed economies, and a slowdown in emerging economies worldwide. As a result, oil prices are expected to remain soft in 2009 and most of 2010. The following chart shows historic oil prices, along with revised projections through 2018.




Source: Sproule, GLJ, EIA, and FRC

We continue to maintain a positive outlook on long-term prices as we believe that long-term growth in demand, and increasing finding and development costs, will drive prices to a consensus forecast of US$80/bbl in the longer-term.

***Financials***

The following table shows the company's cash and liquidity position at the end of Q2-2009 (end of October 2008).

| | 2006 | 2007 | 2008 | 2009 (6 mo) |
|---|---|---|---|---|
| Cash + Short-term Inv | 1,652,370 | 599,374 | 68,903 | 48,402 |
| Working Capital | 1,694,856 | (291,744) | (749,585) | (513,161) |
| LT Debt | - | - | 329,994 | 329,994 |
| Cash flows from financing | 1,874,700 | 1,790,163 | 1,689,224 | 1,182,593 |
| Monthly Burn Rate (incl. Capex) | (102,545) | (226,993) | (186,011) | (196,274) |

Cash at the end of Q2-2009 was $0.05 million. The company had a working capital deficit of $0.51 million. The company posted a net loss of $0.44 million (EPS: -$0.01) during the first six months of FY2009. We estimate the burn rate (including capital expenditures) during the period was about $0.20 million per month in the first six months of FY2009, versus $0.19 million per month in FY2008 (12 month period).

**Subsequent debt financings –**

- In November 2008, the company announced that it had secured a loan of US$0.21 million to pay for the transportation of the two generators to the site. The loan is secured by a promissory note payable in 12 months and bears interest at 9% per annum. The notes are convertible at C$0.10 per unit at any time during the term of the loan. Each unit consists of one common share and one common share purchase warrant (exercise price of C$0.20; maturity period – two years).
- In December 2008, the company announced it secured a loan of US$0.125 million to fund costs associated with obtaining the Beam Pumping Units. The loan is to be secured by a promissory note payable in 12 months and bears interest at 9% per annum. The notes are convertible at C$0.10 per unit at any time during the term of the loan. Each unit consists of one common share and one common share purchase warrant (exercise price of C$0.20; maturity period – two years).

**Stock options and warrants:** At the end of October 2008, the company had 2.81 million stock options (weighted average exercise price of $0.50) and 14.87 million warrants (weighted average exercise price of $0.30) outstanding. None of the outstanding options and warrants are currently in the money.

**Conclusions**: We estimate the company will need to raise an additional $2.5 million (through equity or debt) in 2009, to fund working capital and the proposed steam generator project. The expected timeline for the steam generator project is contingent on financings. Considering that current markets are not favorable for juniors raising capital, we believe that delays in the proposed timelines are possible.

***Valuation***

Our revised valuation on the company, based on the net asset value of its reserves, dropped from $0.89 to $0.21 per share. A summary of our valuation is shown in the following table.

| NET ASSET VALUE | | | | | |
|---|---|---|---|---|---|
| | **0%** | **5%** | **10%** | **15%** | **20%** |
| **NPV (before tax)** | 57,489,350 | 40,707,402 | 29,177,081 | 21,121,747 | 15,410,021 |
| **NPV** | 40,123,208 | 27,598,706 | 19,109,377 | 13,267,857 | 9,195,820 |
| | | | | | |
| NAV (@ 15%) | 13,267,857 | | | | |
| Working Capital | (843,155) | | | | |
| No. of Shares | 59,363,450 | | | | |
| **Fair value per share** | **$0.21** | | | | |

Our valuation dropped as we lowered the reserve estimates (we had used 5.6 mm boe in our previous report; we now value the project based on the revised proved plus probable reserves calculated by Petrotech), delayed production schedule, and increase in the number of outstanding shares.

***Rating***

**Our valuation of $0.21 per share is well above the current share price of $0.04 per share. However, considering the uncertainties regarding the effectiveness of the proposed steam generator project, and financings, we have decided to take a very conservative approach until we see more progress. Therefore, we have lowered our rating from BUY to HOLD, and our fair value from $0.89 per share to $0.21 per share.**

***Risks***

The following risks, though not exhaustive, will cause our estimates to differ from actual results:

- DRK is exposed to all the risks associated with any other exploration and production company.
- The LAK Ranch property requires an EOR method to recover oil in the field. Even though all the previous production attempts have indicated that oil recovery is possible in the field, actual oil recovery rates could be very different from the current estimates.
- Access to capital is very crucial to be able to continue pursuing exploration and development programs.
- Volatility in commodity prices - As revenues are directly related to commodity prices, growth and profitability of the company will depend heavily on oil prices. High natural gas prices relative to oil prices will negatively impact the company's profitability.

**Buy** – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk
**Hold** – Annual expected rate of return is between 5% and 12%
**Sell** – Annual expected rate of return is below 5% or the expected return is not commensurate with risk
**Suspended or Rating N/A—** Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

**Fundamental Research Corp. Risk Rating Scale:**
**1 (Low Risk) -** The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

**2 (Below Average Risk) -** The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

**3 (Average Risk) -** The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

**4 (Speculative) -** The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

**5 (Highly Speculative) -** The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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