



Second Wave Petroleum Inc.

News Release

For Immediate Release
Calgary, Alberta

TSX Venture Exchange: SCS
70,835,961 Common Shares

Second Wave Reports Results of Multi-Stage Acid Fracture Operations on its Pekisko Horizontal Oil Wells in Judy Creek

CALGARY - Second Wave Petroleum Inc. ("Second Wave" or the "Company") is pleased to announce the initial testing results from its Judy Creek Pekisko Multi-Stage acid fracture operations. Results to date imply that Multi-Stage acid fracturing represents a significant improvement on techniques that were previously utilized to stimulate the Pekisko oil resource play in Judy Creek.

Highlights

- ◆ Completed a ten-stage acid fracture stimulation on the 01-05-064-09W5 (100% W.I.) Pekisko horizontal oil well on June 4, 2010. After a 14 day production test period the final production rate was 220 boe/d (68% oil weighting) with the well producing at only a 40% drawdown of the reservoir pressure. This production rate represents an increase of 2.5 times on the average rates achieved on horizontal Pekisko oil wells using acid squeezes completion techniques in Judy Creek.
- ◆ Completed a six-stage acid fracture stimulation on the 09-28-063-09W5 (100% W.I.) short leg horizontal on May 22, 2010. After a 30 day production test period the well was producing at an approximate rate of 70 boe/d (50% oil weighting). The 9-28 well had produced for 14 months prior to the fracture stimulation and production increased 3.7 fold after the fracture stimulation.
- ◆ Changes to Alberta Government Royalty structure, as announced on May 27, 2010, will benefit lower rate unconventional oil plays like the Pekisko formation in Judy Creek by increasing the volume and production time frame covered by the 5% royalty period. Management estimates that these royalty changes will add an incremental 15 to 20% to individual well economics in Judy Creek with additional upside on the potential increase in production rates and recovery factors from its fracture stimulated wells.
- ◆ Drilled and cased the 01-03-064-09W5 (100% W.I.) horizontal Pekisko oil well and spud the 04-04-064-09W5 (100% W.I.) with a planned ten-stage acid fracture stimulation scheduled for both wells in July 2010.

Judy Creek

At Judy Creek the Company has nine (nine net) long leg horizontal oil wells and one (one net) short leg horizontal oil well producing out of the Pekisko formation. Prior to being placed on production all wells had been stimulated using an acid squeeze completion technique. This operation is designed and utilized to

clean out any drilling debris and scale from the formation in the near well bore region however the permeability of the reservoir is not meant to be increased using this technique. Results to date using this technique have been encouraging as production rates from the nine long leg horizontal wells have averaged approximately 90 boe/d (55% oil weighting) over the first 30 days of production (nine wells in the data set) with production rates after six months of approximately 70 boe/d (three wells in data set). Based on fluid level data each of the nine long leg horizontals have produced at an average drawdown pressure that was 75% of the reservoir pressure during the first 30 day production period. The horizontal wells completed using acid squeezes cost approximately \$1.3 million to drill, complete and equip for production. The longest production history that the Company has on a long leg horizontal is nine months with the one short leg horizontal producing now for 14 months.

Second Wave has been the first and only company to utilize 3-D seismic and horizontal drilling technology to develop the Pekisko formation at Judy Creek and as such there is no additional analog production data to measure or compare the initial results from these first ten wells against.

Second Wave has now begun using multi-stage fracture techniques to stimulate the Pekisko formation on its horizontal wells. These completion techniques are meant to not only clean up any near well bore formation damage that occurs during the drilling operation but also to improve the overall permeability of the formation which in turn should improve hydrocarbon production rates and overall recoveries. On May 22, 2010 the Company completed a six-stage acid fracture stimulation on the 09-28-063-09W5 short leg horizontal well with each acid stage being 60 m³ in size for an aggregate of 360 m³ of acid being placed during the operation. The 9-28 well had been drilled as a pilot horizontal well with only 400 meters of open hole in the Pekisko formation. The 9-28 well had initially been stimulated with an acid squeeze prior to being placed on production and after 14 months the production rate had declined to a 90 day average of approximately 19 boe/d (30% oil). After fracture stimulation the well was tested for a 30 day period with a final production rate of approximately 70 boe/d (50% oil weighting). The production has increased 3.7 times after the fracture stimulation.

On June 4, 2010 the Company completed its 01-05-064-009W5 long leg Pekisko horizontal well with a ten-stage acid fracture stimulation with each stage being 60 m³ in size for an aggregate of 600 m³ of acid being placed during the operation. The 01-05 well has now been tested for 14 days with a final production rate of approximately 220 boe/d (68% oil weighting) at only a 40% drawdown of the reservoir pressure. This test rate represents an increase of 2.5 times when compared to the average production rate of the previous nine long leg horizontal wells that had been stimulated using acid squeezes even though the production rate was restricted by a substantially higher bottom hole producing pressure. The Company expects that the capital required to drill, complete and equip each of these wells for production will be approximately \$2.3 million or 80% higher than the horizontal wells completed with the acid squeeze technique. Based on initial production rate comparisons and the assumption that a higher initial production rate should correspond to a higher overall recovery factor it appears that the horizontal Pekisko wells that have been fracture stimulated may represent in excess of a 40% improvement on capital efficiencies however additional decline data will be required to confirm this expectation.

In Judy Creek the Company currently owns 90,000 acres of contiguous Pekisko mineral rights at a 100% working interest. The Pekisko G pool has been mapped internally over 65 sections of net land using 29 square miles of 3-D seismic, 150 miles of 2-D seismic and 30 vertical well bores. Second Wave has been the first Company to utilize horizontal drilling technology to develop the Pekisko formation in Judy Creek and now has been the first Company to utilize a multi-stage acid fracture stimulation in this reservoir. The Company will continue to review the application of new and old technologies to its Pekisko play as a means of improving its overall rate of return to its shareholders.

Alberta Royalty Changes

On May 27, 2010, the Alberta government announced a series of royalty changes with the hopes of stimulating additional investment in Alberta's hydrocarbon industry. As part of their energizing investment initiative the royalty rates on all horizontal oil wells were changed to recognize the increased costs and risk associated with applying new technologies to these unconventional opportunities. In particular the 5% front end royalty rate on all horizontal oil wells spud after May 1, 2010 and drilled to a depth between 2,500 meters and 3,000 meters was extended from the lesser of 50,000 boe or 12 months of production to 60,000 boe and 24 months of production. The maximum royalty rate that would occur after the expiration of this royalty relief period was also reduced from 50% to 40%. These royalty changes have been put in place until at least 2014 with a 3 year notice prior to eliminating them thereafter. The economics of the Judy Creek Pekisko horizontal oil wells which on average are 2,800 meters in depth are materially enhanced by these changes as management currently predicts that each horizontal Pekisko oil well that has been acid squeezed will produce 28 mboe during the first year of production and 18 mboe during the second year of production. Under the old royalty program only the first 28 mboe of production would be covered at the 5% royalty rate however under the new royalty frame work an additional 18 mboe of production would benefit from the 5% front end royalty rate. Management estimates that these royalty changes will add an incremental 15 to 20% to its individual well economics with additional upside on the potential increase in production rates and recovery factors from its fracture stimulated wells.

Outlook

Although initially delayed by wet weather the Company has been actively drilling in the second quarter. Currently the Company has drilled, completed and tied in its 01-05 horizontal Pekisko well with first production occurring on June 10, 2010. The 01-03 and 04-04 horizontal Pekisko wells will be drilled and cased by the end of the second quarter however completion operations will be pushed into the third quarter with first production from each well expected to occur in July of 2010. The Company has a very active drilling program scheduled for the second half of the year with up to four (four net) horizontal oil wells being drilled in the third quarter and an additional four (four net) horizontals oil wells scheduled to be drilled in the fourth quarter. The Company is planning to complete all of its remaining Pekisko horizontal oil wells using the multi-stage acid fracturing technology. In the third quarter the Company will be drilling its first three Pekisko wells (one vertical, two horizontal) on its exploration/extension block in Judy Creek. If successful these wells will continue to delineate the Pekisko G pool and add a significant amount of developmental drilling locations to the Company's already extensive drilling inventory. The Company will provide additional guidance on its forecasted 2010 exit production rates and debt levels once its third quarter drilling program is completed. The Company remains on course to meet its previously forecasted rate of 2,500 boe/d (64% oil) and a debt to forward cash flow ratio of 1:1 based on stable commodity prices. Currently Second Waves production rates based on field estimates exiting the second quarter including the rates from the 01-05 horizontal well is 1,625 boe/d (63% oil).

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Forward-Looking Statements. This news release contains forward-looking statements as to the Company's internal projections, expectations and beliefs relating to future events or circumstances. Forward-looking statements are typically (but not necessarily) identified by words such as "anticipate", "believe", "plan", "estimate", "expect", "plan", "intend", "potential", "may", "will", "should" or similar words

suggesting future outcomes. Although the Company believes that these forward-looking statements are reasonable, undue reliance should not be placed on them as they are subject to known and unknown risks and uncertainties, many of which are beyond the Company's control. Forward-looking statements are not guarantees of future outcomes. There can be no assurance that the plans, intentions or expectations contained in the forward-looking statements or upon which they are based will in fact occur or be realized, and actual results may differ from those expressed or implied in the forward-looking statements. The difference may be material.

Second Wave is subject to the inherent risks associated with the exploration, development, exploitation and production of oil and gas. More particularly, material risk factors that could cause actual results to differ materially from those expressed or implied in the forward-looking statements contained in this news release include: adverse changes in commodity prices, interest rates or currency exchange rates; accessibility of capital when required and on acceptable terms; lower than expected production of crude oil and natural gas; production delays; lower than expected reserve volumes on the Company's properties; increased operating costs; ability to attract and retain qualified personnel or to secure drilling rigs and other services on acceptable terms; competition for labour, equipment and materials necessary to advance the Company's projects; unforeseen engineering, environmental or geological problems; ability to obtain all required regulatory approvals on a timely basis and on satisfactory terms; and changes in laws and governmental regulations (including with respect to taxes and royalties). This list is not exhaustive. Readers should also review the risk factors described in other documents filed by the Company from time to time with securities regulatory authorities in Canada, including its most recent annual information form, copies of which are available electronically at www.sedar.com and at www.secondwavepetroleum.com.

Specific forward-looking statements contained in this news release include statements regarding: 2010 drilling plans generally; the future proposed phases of the Battle Creek CO(2) flood; and the expected timing for the commencement of flooding at Battle Creek and drilling at Tableland. In making such forward-looking statements, Second Wave has made various assumptions regarding, among other things: the accuracy of geological and geophysical data and interpretations of that data; future oil and natural gas prices; future capital requirements; future exchange rates; the accessibility and cost of associated services; the Company's ability to economically produce oil and gas from its properties and the timing and cost to do so; and its ability to obtain qualified staff, equipment and supplies in a timely and cost-efficient manner.

The forward-looking statements included herein are made as of the date of this news release and Second Wave undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by securities laws.

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