Senex Energy Limited

ASX Announcement

Senex commences unconventional gas exploration campaign in the South Australian Cooper Basin

Release Date: 6 January 2012

Senex Energy Limited (Senex) has commenced a dedicated exploration campaign to assess the unconventional gas potential of the shales, tight sands and coals in PEL 516 (Senex 100%) on the southern edge of the South Australian Cooper Basin.

Key Points

- Dedicated three well unconventional gas exploration program in PEL 516.
- Each well to be extensively cored, logged, fracture stimulated and flow tested.
- The first of these wells, Sasanof-1, spudded on 4 January 2012.
- Fracture stimulation injectivity test to be conducted on the adjacent Allunga Trough-1 well.
- PEL 516 preliminary results indicate a potential gas resource in the wet gas window, containing liquids and heavy gases with a low carbon dioxide content.

Sasanof-1 spuds

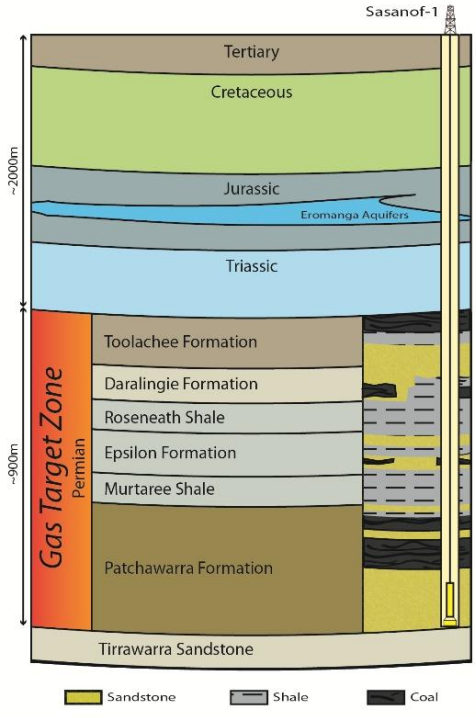
Sasanof-1 is the first of a planned program of three dedicated unconventional gas wells in PEL 516 to investigate the unconventional gas potential of Senex's highly prospective Cooper Basin acreage.

Senex commenced drilling Sasanof-1 on 4 January 2012. Century rig #3 is currently setting surface casing after drilling to a depth of 850 metres.

The well will target Roseneath-Epsilon-Murteree (**REM**) shales, Patchawarra Formation gas bearing tight sands, and Toolachee Formation coals.

The well is expected to reach a total depth of 3,200 metres within 39 days and will be extensively cored. Over 220 metres of core will be taken from the Roseneath and Murteree shales, and coals and sands in the Toolachee and Patchawarra formations.

Figure 1: Stratigraphic column showing target formations for unconventional gas



Three well unconventional gas exploration program in PEL 516 (Senex 100%)

In addition to Sasanof-1, Senex will immediately drill two further wells, Skipton-1 and Talaq-1, as dedicated unconventional gas exploration wells. Skipton-1 is located 50 kilometres to the north-east of Sasanof-1, with Talaq-1 located a further 20 kilometres south-east of Skipton-1.

Each well will be extensively cored and logged in the Permian section. They will also undergo fracture stimulation and flow testing in all gas bearing formations to evaluate the potential for commercial production of unconventional gas.

The fracture stimulation of these wells will aim to induce gas flow from unconventional reservoirs, including the REM shales and the Patchawarra tight sand sequences.

Senex Managing Director Ian Davies said the company was very excited about the exploration program given the favourable unconventional gas results of the Vintage Crop-1 exploration well in June 2011.

“We know that much of PEL 516 is located in what we call the unconventional gas fairway in the South Australian Cooper Basin. Our Vintage Crop-1 exploration well in PEL 516 and other operators’ exploration wells in other permits, have demonstrated that the region has the potential to contain a world class unconventional gas resource,” he said.

“Senex’s three well unconventional gas exploration program is part of a very targeted campaign that draws on existing knowledge to gain new insights into the extent and nature of this potential resource. As a result of the campaign, the Company is aiming to book a material contingent resource at the end of the 2012 financial year,” Mr Davies said.

Mr Davies said PEL 516 also displayed other favourable characteristics for unconventional gas production.

“The unconventional gas targets in PEL 516 are relatively shallow. This means that conventional drill rigs can be used and there is no need for specialised casing or drilling materials to address high heat.

“Also, preliminary results indicate that the potential resource in this acreage is in the wet gas window, containing liquids and heavy gases with a low carbon dioxide content similar to successful unconventional gas plays in the United States, such as the Piceance Basin.

“Both of these attributes have a very favourable impact on future project economics,” Mr Davies said.

Allunga Trough-1 fracture stimulation injectivity testing

The campaign will also include fracture stimulation injectivity testing at Allunga Trough-1, a gas exploration well previously drilled by Santos Limited (**Santos**) in 1998, now in PEL 516.

Allunga Trough-1 was originally drilled as a potential Patchawarra Formation gas producer by Santos on behalf of the South Australian Cooper Basin Unit Producers. After attempting two fracture stimulation treatments and experiencing mechanical problems, operations were suspended and nothing further was attempted at the well before the acreage was relinquished in 1999.

The well penetrated the entire Permian section in the Allunga Trough, including approximately 80 metres of Roseneath and Murteree shales, both of which were shown to contain gas in cores from Vintage Crop-1.

During January 2012, Allunga Trough-1 will undergo a series of tests where small quantities of water will be injected into the Murteree and Roseneath shales to observe and measure the impact of fracture stimulation. This complex test sequence is expected to take two weeks to complete.

“The tests at Allunga Trough-1 will provide us with a relatively low cost means of understanding how the shales fracture during stimulation.

“The tests are designed to identify the best conditions for fracture stimulation. The results of this “mini-frac” will assist in designing effective large scale fracture stimulation treatments for our current unconventional gas exploration program,” Mr Davies said.

For further information contact:
Ian Davies
Managing Director
Senex Energy Limited
Phone: (07) 3837 9900

Figure 2: PEL 516 unconventional gas exploration wells