

Fortnightly drilling report – Drilling begins on the Paning-2 unconventional gas exploration well in the northern Cooper Basin

Release Date: 19 December 2012

Key points

- Senex Energy Limited (**Senex**) commenced drilling the unconventional gas exploration well Paning-2 on 15 December to assess the tight sands and deep coal seams of northern Cooper Basin permit PEL 90.
- At Paning-2, Senex estimates potential gas in place of 2.1 trillion cubic feet (Tcf) in the deep coal seams with additional material targets in the tight Permian sands.
- Paning-2 will test a 9,000 acre structure that is the first of a series of similar targets throughout the Patchawarra Trough.
- The Snatcher-6 oil well will commence production by the end of this week. Senex expects to commence commissioning the Snatcher-8 oil well before the end of the year.
- Senex has re-completed the Growler-5 oil well with an electric submersible pump, surface facilities will be installed in the new year.
- Data capture is complete on the Cuisinier 3D seismic survey and approximately 42% complete on the 311 square kilometre Lignum 3D seismic survey (PEL 104 and PEL 111 on the western flank oil fairway).
- Senex will commence a five well fracture stimulation program of its Cooper Basin unconventional gas assets in January 2013, with results expected to be available by the end of March 2013.

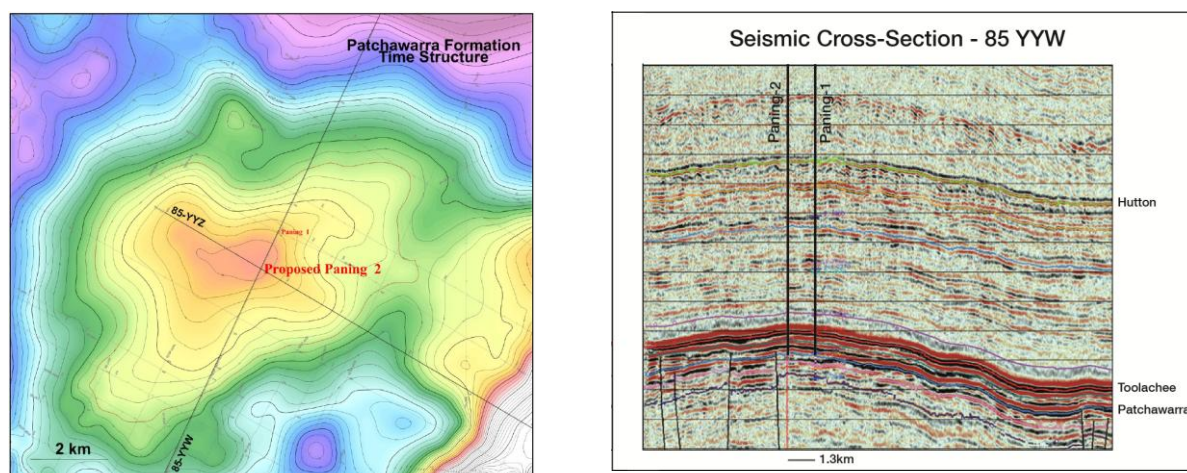
UNCONVENTIONAL GAS EXPLORATION

Paning-2 – Targeting unconventional gas in the northern Cooper Basin

On 15 December, Senex commenced its 12 well unconventional gas exploration program with the spudding of the Paning-2 well in northern Cooper Basin permit PEL 90 (100% Senex). Weatherford Rig 826 has currently reached a depth of 751 metres and is running 13 ³/₈" casing. The targeted total depth of the well is 3,175 metres.

Paning-2 is located 1.2 kilometres southwest of Paning-1, which was drilled in 1980 by Delhi Petroleum as a conventional gas exploration well. The Paning-2 well is the first unconventional gas exploration well to be drilled in the region and is designed to provide valuable information about the potential for gas production from the tight sands and deep coal seams of this new region.

Figure 1 – Depth to the top of the Patchawarra Formation at the Paning structure



Tight sands

Paning-2 will test the domal structure up-dip of Paning-1 at the top of the Patchawarra Formation; the structure covers an area of more than 36 square kilometres (9,000 acres). The primary targets are the tight sandstones in the Toolachee, Epsilon and Patchawarra Formations, and thick coal seams in the Toolachee Formation. The Tirrawarra Sandstone, which underlies the Patchawarra Formation also has potential as a tight sand play.

The Paning-2 well is the first exploration well to test the potential of the Permian tight sand sequence that exists within the entire Patchawarra Trough.

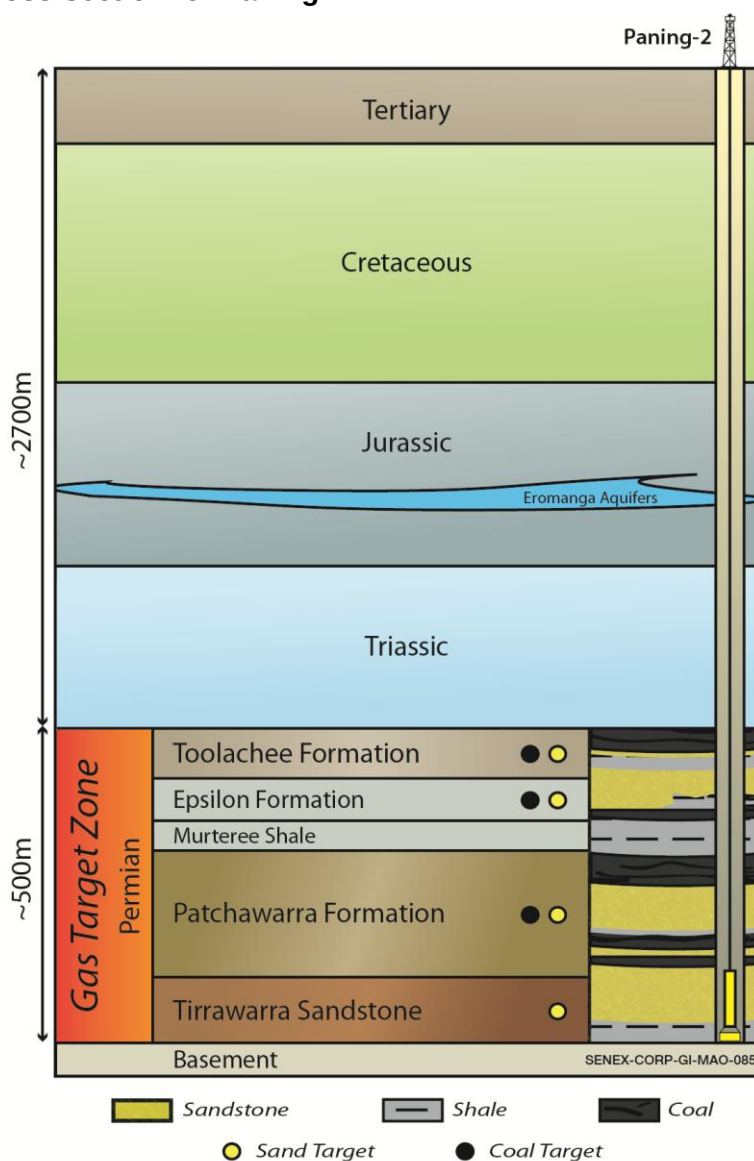
Deep coal seams – Estimated potential gas in place of 2.1 Tcf

Paning-2 will test massive Permian coals known to exist throughout the Patchawarra Trough where Senex holds an extensive acreage position. The coals in Paning-1 are up to 30 metres thick with a total coal thickness in the well of 57 metres. Similar thicknesses are expected in Paning-2. Data from the desorption of Permian coals cored in previous Senex wells indicates gas contents of at least 600 standard cubic feet per tonne (equivalent to approximately 17 cubic metres per tonne). The productivity of the Permian coals was proven by Santos at the Moomba-77 well, where Patchawarra Formation coals flowed at 100,000 cubic feet per day. The unconventional gas target located in deep coal seams within this 9,000 acre structure is estimated to contain potential gas in place of 2.1 Tcf.

Senex will take extensive core samples from Paning-2 to allow petrophysical and gas content analysis of the target zones. This information will allow the design of future completion techniques to maximise flow rates and prove the commerciality of tight sand and deep coal formations.

At the completion of drilling, Paning-2 will be cased and suspended prior to fracture stimulation and subsequent flow testing in early 2013.

Figure 2 – Cross-section for Paning-2



Paning-1 – Flowed gas to surface in 1980

The Paning-1 well encountered gas sands in the Permian aged Toolachee, Epsilon and Patchawarra Formations together with significant gas charged coal seams in each of the same Formations. All attempts at open hole testing at this time failed due to mechanical issues, however cased hole tests resulted in small unstimulated gas flows from two Patchawarra sands. These zones will be tested with fracture stimulation in Paning-2.

OIL EXPLORATION, APPRAISAL AND DEVELOPMENT

Completion and commissioning program on track

Oil production from the Snatcher oil field in PPL 240 (Senex 60% and Operator; Beach Energy Limited (Beach) 40%) is set to increase with initial production testing at the Snatcher-6 well to commence by the end of this week. Senex expects to begin commissioning the Snatcher-8 oil well before the end of the year and Snatcher-7 early in the new year, with production testing to follow shortly after. Senex also plans to complete the Snatcher-9 well in the new year, with production to start in the March 2013 quarter.

Senex has re-completed the Growler-5 oil well in PRL 15 (Senex 60% and Operator; Beach 40%) with an electric submersible pump, surface facilities will be installed in the new year. Following its release from Growler-5, Wild Desert Rig 10 will mobilise to the successful Spitfire-2 exploration well in PEL 104 (Senex 60% and Operator; Beach 40%). This well will be completed early in the new year and will be followed by an initial production test.

The Mustang-1 oil exploration well in PEL 111 (Senex 60% and Operator; Beach 40%), has continued production testing during the last fortnight at restricted rate of 800 barrels of oil per day (bopd) through a $1\frac{7}{64}$ " choke.

Pipelines commissioned

Beach has advised that the Growler to Lycium (Beach 40% and Operator; Senex 60%) and Lycium to Moomba pipelines (Beach 60% and Operator; Senex 40%) achieved commercial flows on 12 December 2012 and oil is now flowing through them with expected gross capacities to be 8,000 bopd and in excess of 20,000 bopd, respectively.

These pipelines are integral to the deliverability of oil production irrespective of weather conditions and will improve safety by reducing traffic on the western flank roads.

3D seismic programs

The data capture phase of the 224 square kilometre 3D seismic survey of the acreage north of the Cuisinier oil field was completed on 9 December. The Cuisinier field is located in the Queensland Cooper Basin permit ATP 752P (Barta Block) (Senex 15%, Santos 45% and Operator). Data processing will now commence with the aim of identifying the next generation of oil targets in this region.

Data capture for the Lignum 3D seismic program is approximately 42% complete, line preparation is 87% complete and surveying is 71% complete. This survey covers an area of 311 square kilometres within PEL 104 and PEL 111 and is adjacent to the successful Growler and Snatcher oil fields.

COAL SEAM GAS BUSINESS

Planning is underway to drill two core holes in each of Senex's western Surat Basin permits ATP 593 and ATP 771 during the June half of 2013. The core holes will further test the extent of the resource and build additional proved and probable (2P) reserves.

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Figure 3: Senex unconventional gas exploration activities

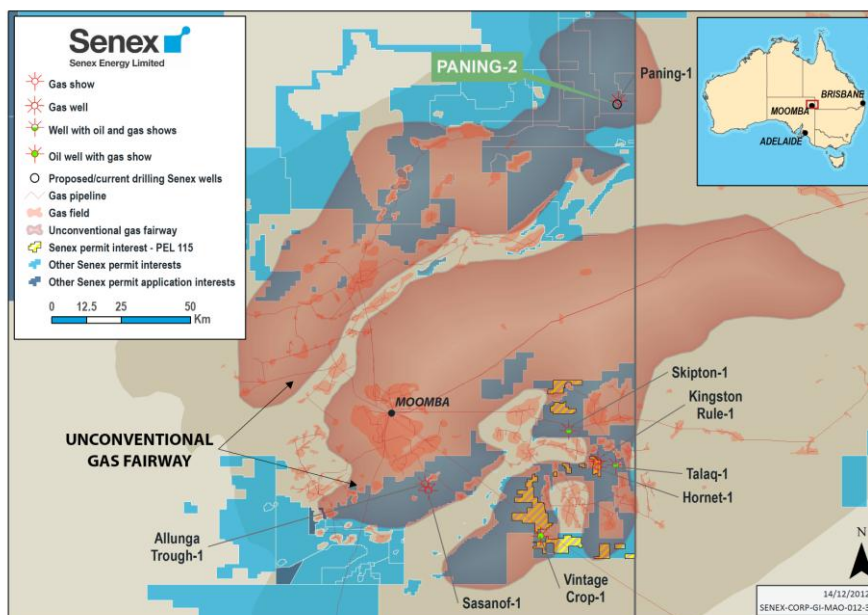


Figure 4: Thickness of the Toolachee coals within the Paning Trough

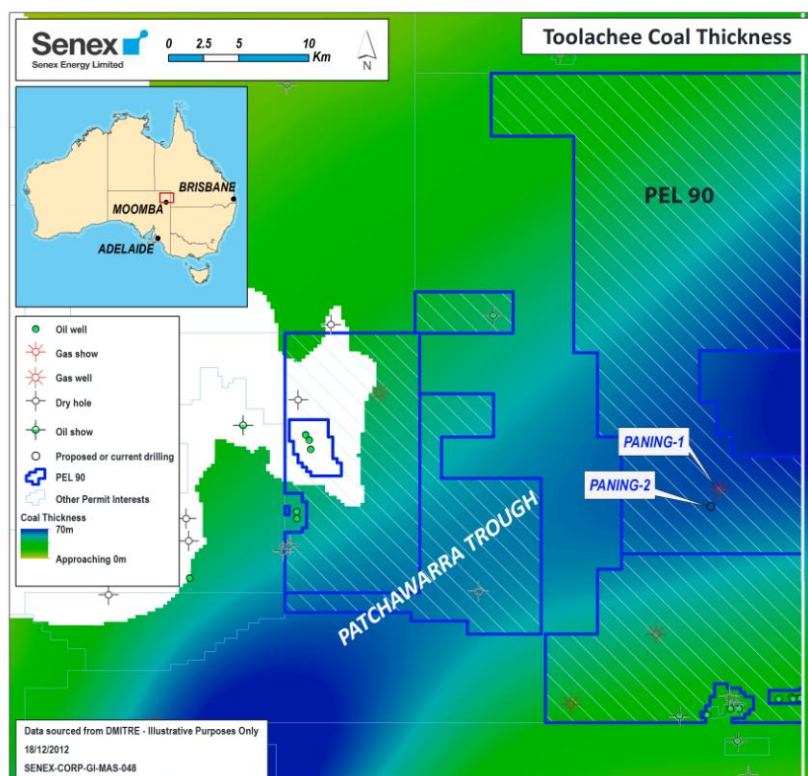


Figure 5: Senex conventional oil exploration, appraisal and development activities

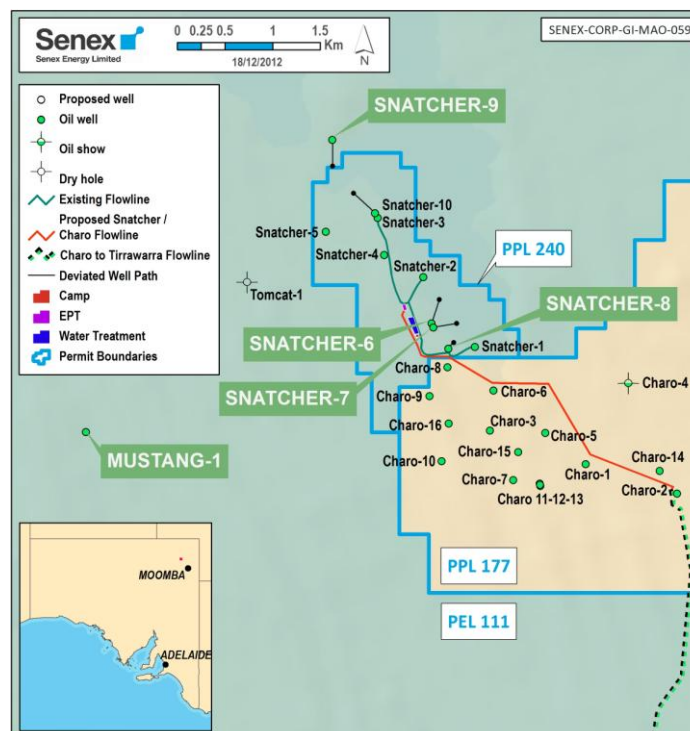
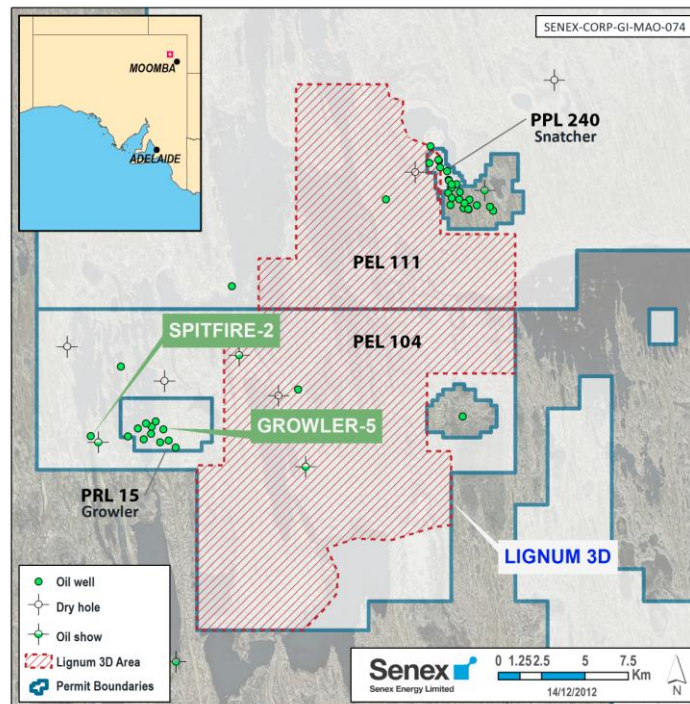


Figure 6: Current and proposed 3D seismic surveys on the western flank oil fairway

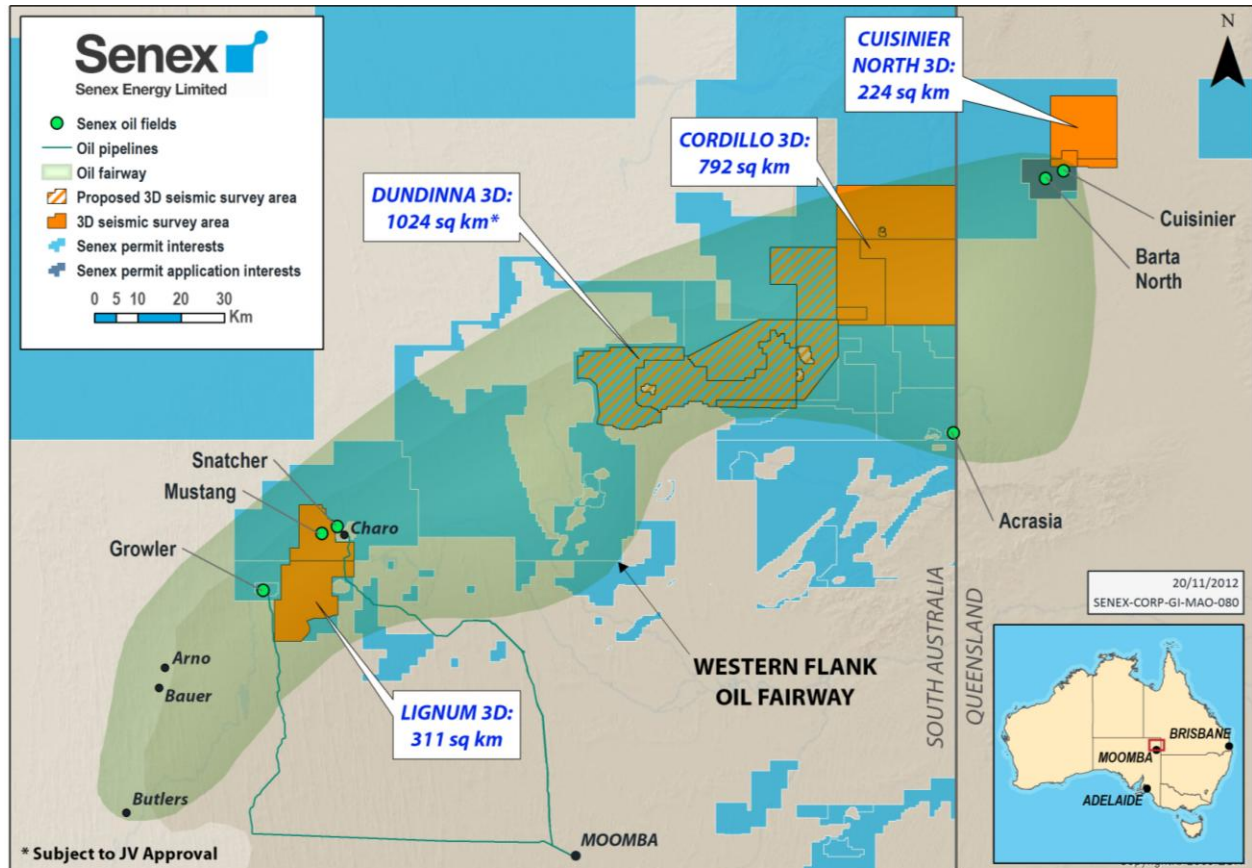
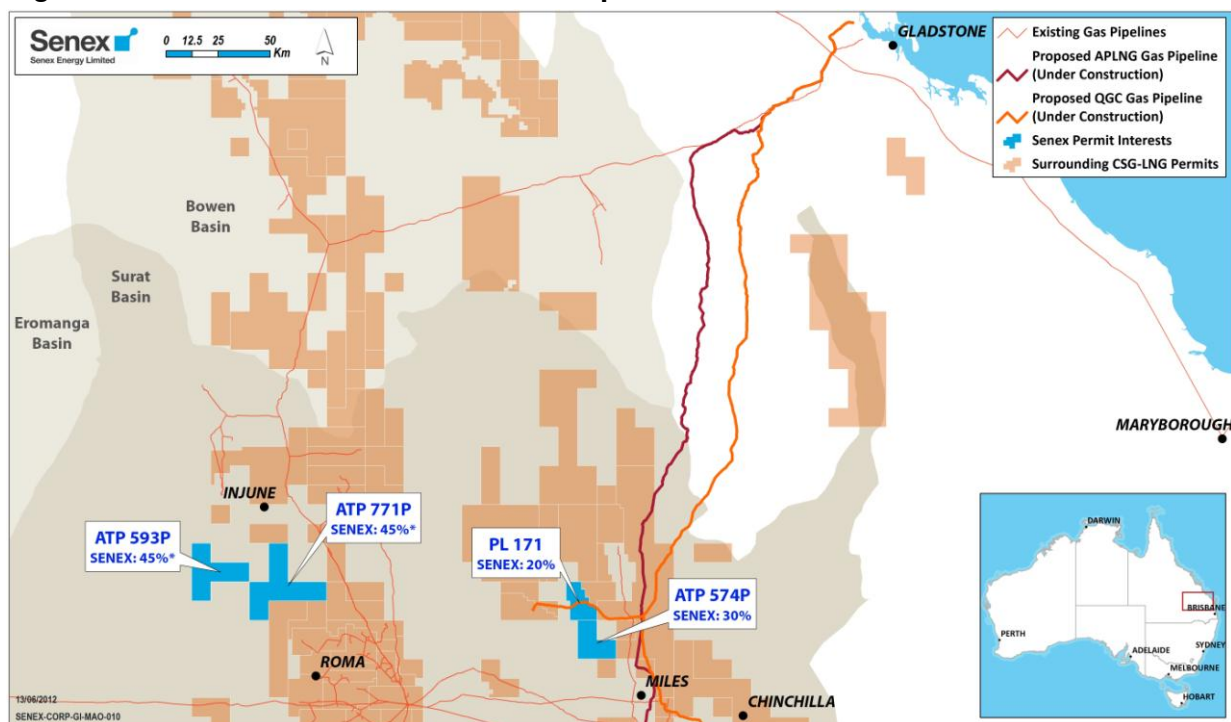


Figure 7 – location of western Surat Basin permits



Competent persons statement

Unless otherwise indicated, the statements contained in this drilling report about Senex's reserves estimates have been compiled by Dr Steven Scott BSc (Hons), PhD, who is General Manager – Exploration, a full time employee of Senex, in accordance with the definitions and guidelines in the 2007 Petroleum Resources Management System approved by the Society of Petroleum Engineers (SPE PRMS). Dr Scott consents to the inclusion of the estimates in the form and context in which they appear. Senex's reserves and resources are consistent with the SPE PRMS.