Buffalo project update

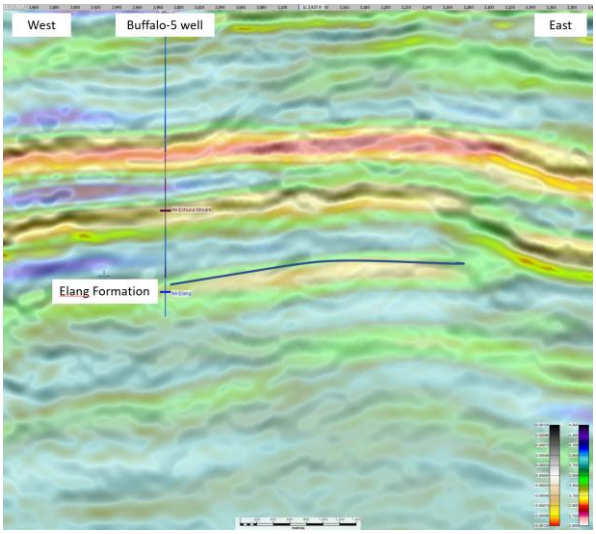
20 February 2018

Highlights

- Third iteration of FWI seismic reprocessing technology was recently completed
- This new data further improves the imaging of the Buffalo oil reservoir
- Third iteration of FWI seismic reprocessing is being used to support development planning

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to provide the following update on its subsurface work in the Buffalo project. This update follows those previously provided to ASX on 31 July 2017, 28 August 2017 and 5 September 2017.

Quality new seismic data has recently been received and is showing increasingly clear definition around the important Elang formation, which is the producing reservoir in the Buffalo oil field.



In the seismic image to the left, the top of the Elang formation has been marked and correlated with the Buffalo-5 well logs.

This seismic image shows reservoir updip of the Buffalo-5 production well into an area Carnarvon expects will contain unproduced oil.

With this new data the reservoir in this region is clearly identifiable on seismic and has been reconciled with important well data within the oil field.

This improvement in data quality increases Carnarvon's confidence in the redevelopment of the field.

The above results have been possible due to significant increases in computing power since the field was last in production in 2004. Carnarvon has been working in concert with the seismic reprocessing firm, DownUnder GeoSolutions, to achieve the current results. Further, more detailed illustrations of the above are provided in Figures 1 and 2 below.

Carnarvon secured the Buffalo project in 2016 with the objective of running modern seismic technologies (called Full Waveform Inversion or FWI) to determine whether seismic velocity issues in the past could be solved with this new technology. The first iteration appeared to successfully achieve this objective and a second reprocessing iteration was undertaken as an independent check of the initial reprocessing work. All of the learnings from the first two reprocessing iterations were then incorporated into this current third reprocessing iteration. The result is a data set that is a vast improvement on the historic seismic data that was available when the field was last in production. At this stage the Carnarvon team believe the current data set is sufficient to take this project forward to drilling and development.

In addition to the work being undertaken around the Buffalo oil field, the Carnarvon team are also mapping the untapped exploration prospects within the permit. A separate update will be provided once this work is complete.

Permit equity holder:	**Carnarvon Petroleum (Operator)**	**100%**

Yours faithfully

Adrian Cook
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Figure 1 – Seismic lines north / south and east / west through the Buffalo oil field

The seismic image below is a colour blend of the latest migrated seismic data with the latest FWI-derived interval velocity data in colour overlay. The interval velocity can be thought of as a low resolution proxy for gross geological sand versus shale.

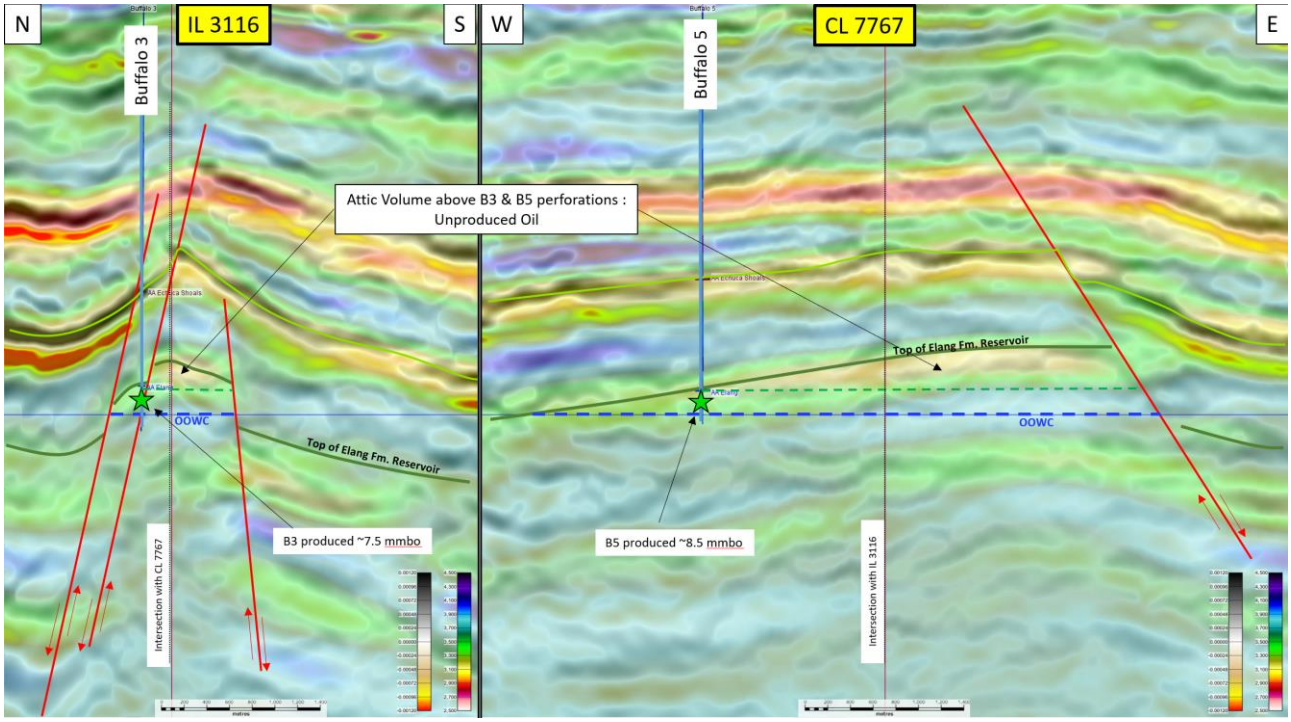

Figure 2 – same cross lines as in Figure 1 in schematic form