



Market Announcements Platform  
ASX Limited  
Exchange Centre  
20 Bridge Street  
Sydney NSW 2000

**CALIMA**  
ENERGY

ASX Code: CE1

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## Calima-1 vertical well – log and core data results positive

### Highlights:

- Calima-1 vertical well drilled to a depth of 1,872.5m.
- Montney Formation is 256.5m thick with the top and base of the sequence being encountered very close to prognosis.
- Wireline log data confirms that porosities and hydrocarbon saturations within the Montney Formation in the Calima-1 well are comparable with adjacent producing wells.
- Core analysis confirms presence of natural gas condensate (*calculated API gravity of 52<sup>o</sup> API*).
- The Calima-2 horizontal well has been spudded.

**Calima Energy Limited (ASX:CE1)** (“Calima” or the “Company”) is pleased to advise that the Calima-1 vertical well (official designation – Calima Tommy A-54-C/94-G-09) has reached a total depth of 1,872.5m<sup>(\*)</sup>. The top of the Montney Formation was encountered at 1,559.5m against a prognosis of 1,562.2m and it is 256.5m thick against a prognosis of 257.3m.

### Alan Stein, Calima’s Managing Director commented:

*“We are delighted with the operational progress and initial results from the Calima-1 well. Our prediction that the Montney Formation on the Calima Lands would be comparable to the productive land immediately to the south appears to have been validated. We have encountered zones with enhanced reservoir characteristics containing gas and natural gas condensates with a calculated API gravity of 55<sup>o</sup>. This is particularly significant for our economics because condensates from the Montney are generally priced at a premium to West Texas Intermediate (WTI) crude oil. The Calima 2 horizontal well has been spudded and we look forward to results from an extended production test over the coming weeks.”*

Prior to completing the Calima-1 well a full suite of wireline logs were acquired to compliment the 230 m of core already collected (*see announcement 15<sup>th</sup> January 2019*). The wireline log data were acquired

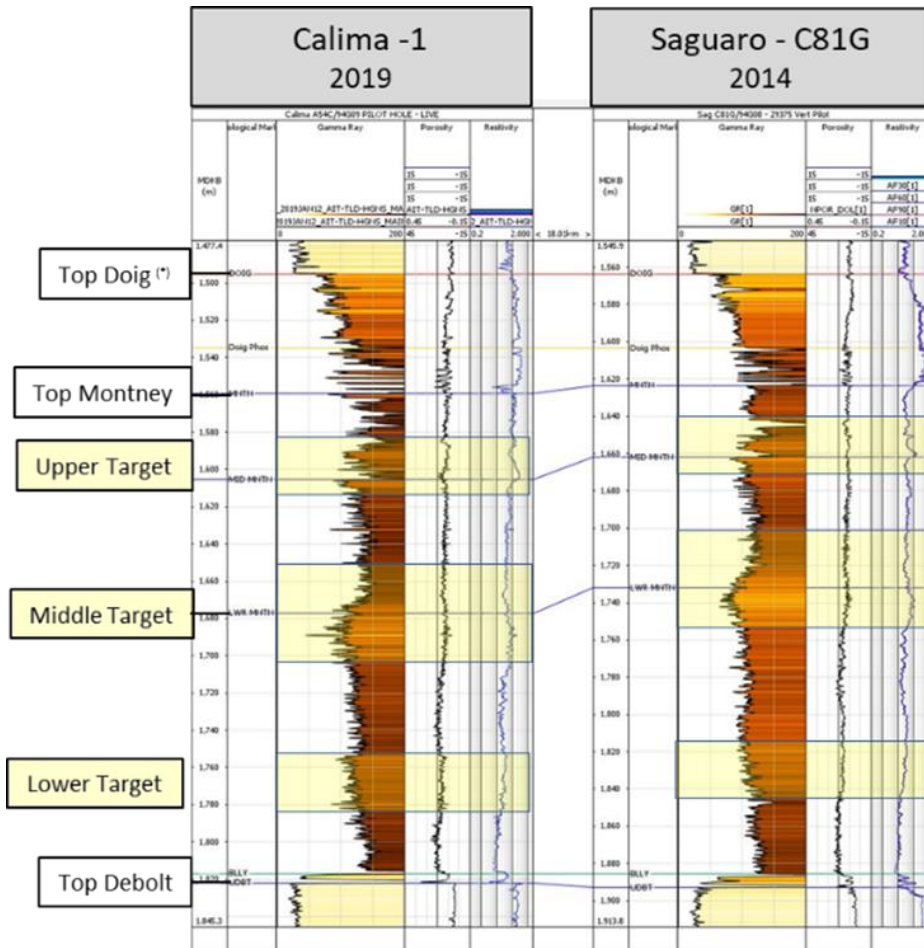
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and evaluated by Schlumberger with a separate evaluation of the logs undertaken by Nutech. The log data are clearly correlateable to nearby wells (Figure 1) with preliminary analyses showing hydrocarbon saturations and porosity measurements throughout the Montney to be comparable with offset wells that are currently producing in adjacent acreage.



**Figure One** – The log data acquired from the Calima-1 borehole are clearly correlateable with other wells drilled in the area. The Saguaro C81-G vertical well is 18km to the southeast of Calima-1. There are three target levels for horizontal drilling within the Montney Formation at this location referred to here as the Upper, Middle and Lower targets.

Analysis of the log and core data from Calima-1 has confirmed the presence of three target zones (Figure 1 – Upper, Middle and Lower) within the Montney which matches those zones already targeted by other Operators in the region. Most of the horizontal wells in the acreage immediately to the south have targeted the Upper and Middle target zones (see Company presentation dated 13 November 2018). Of significance, analyses of the logs and core recovered over the Upper and Middle target intervals has demonstrated the presence of natural gas condensate.





**Dr Raphael Wust, Senior Technical Advisor at AGAT Laboratories in Calgary commented:**

*“The 230m of core recovered by Calima Energy captures almost the entire Montney Formation with all major geological units observed. Initial laboratory results indicate two zones from the upper core barrel with elevated amounts of natural gas condensates with a specific gravity of c. 0.76 and calculated API gravity of 55° API dominated by compounds lighter than C17. Within the lower core barrel, a thermally more mature gas-rich zone is also present. The initial results are encouraging for new opportunities in this underexplored northern part of the Montney Formation. AGAT Laboratories is excited to be involved in the project.”*

The new data are being evaluated to determine the precise depth of two planned horizontal wells which will target the Upper and Middle target zones. Both of the wells are planned to have 2,500 m horizontal sections and the first, Calima-2 (official designation, Calima 02 Hz Tommy a-054-C/094-G-09), has already been spudded following completion of the Calima-1 vertical well. The second horizontal well, Calima-3 (official designation, Calima Hz Tommy a-A054-C/094-G-09) will be drilled immediately following completion of Calima-2.

Production testing of fracture stimulated horizontal wells will be required to determine the flow rates that can be achieved from wells in this area and the relative mix of gas and condensate that can be recovered.

A further announcement will be made after completion of the Calima-2 horizontal well.

(\* All reference depths and thickness are reported with respect to True Vertical Depth (TVD) after correction for the planned slight deviation on the vertical well.

For further information visit [www.calimaenergy.com](http://www.calimaenergy.com) or contact

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## About Calima Energy

**Calima Energy Limited (ASX:CE1)** is an international oil and gas company with more than 72,000 acres of drilling rights prospective for the Montney Formation in British Columbia, the most active oil and gas play in Canada.

Calima's neighbours in the Montney include international operators Shell, ConocoPhillips and Petronas Canada, as well as Canadian producers Black Swan Energy, Saguaro Resources and Painted Pony Energy. The region's liquids-rich hydrocarbon reserves are being targeted for LNG export alongside domestic and international oil market opportunities.

