ASX Code: CE1

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Downhole Pressure Data Confirms Montney Productivity

Highlights:

- Pressure gauges successfully retrieved from Calima 2 and 3 wells after 18 months of gathering formation pressure data.
- Canadian Discovery, a leading global energy information services company was commissioned to correlate core data and pressure results and their initial findings confirm;
    - The Middle Montney, which holds the bulk of the resources, is over-pressured with a stabilised downhole pressure of 19,382 kPa, which is similar to Montney wells drilled immediately to the south by Saguaro Resources at Laprise Creek
    - The Upper Montney which has higher porosity and permeability is normally pressured with a stabilised downhole pressure of 12,860 kPa, which is similar to Montney wells drilled to the south at Nig Creek by Storm Resources and Tourmaline at Birley Creek
- The combination of enhanced reservoir characteristics and normal pressures means that future Upper Montney wells can be designed with less intense and lower cost completions, leading to improved economics for each well.
- Revised development scenarios to be re-modeled including above data and lower well costs.

Calima Energy Limited (ASX:CE1) (Calima or Company) currently operates more than 60,000 acres of drilling rights (Calima Lands) in British Columbia, Canada.

On 3 September 2020 the Company announced its plans to retrieve and analyse the downhole pressure gauges and core from the 2019 winter drilling campaign in Calima 2 and 3 wells. Calima 1 retrieved 230m of Montney Core. Wells 2 and 3 were drilled as 2,500m horizontal wells in the Middle and Upper Montney (respectively). Both wells were successfully flow tested delivering strong initial flow rates resulting in significant resource upgrades (refer to announcement dated 20 July 2020). The downhole data was retrieved in September 2020 and provided to Canadian Discovery along with the core resulting in the following outcomes.

Middle Montney (Calima 2 Well)

The Middle Montney zone targeted in Calima 2 tested favorably compared to area analogues, with a pressure-depth ratio of approximately 11.5 kPa/m (19,382 kPa), and flow test condensate-gas ratios (CGR) suggesting over 43 bbl/mmcf. Nearby producers exhibiting similar reservoir conditions, such as C-016-K/094-H-05 in Laprise Creek, have an IP90 liquids rate of 223 bbl/d and a CGR of over 50 bbl/mmcf.

The recorders provided 495 days of data as they were installed immediately following testing operations. The well settled quickly after flow testing was completed in March 2019 and built up to a

final downhole pressure gradient of ~11.5kPa/m (19,382kPa). This is consistent with the flow test results Calima realised as the well cleaned up during flowback.

The Calima 2 well appears analogous to the pressures and rock characteristics that Saguaro Resources encounter in their Middle Montney wells directly to the south of Calima at Laprise Creek. Saguaro holds adjoining licenses to Calima and is on trend to the south east. Saguaro recently reported the 2nd highest initial flow rates of all Montney wells drilled in 2020 and have been able to reduce drilling and completion costs over the past few years by ~30% (ie down by ~C$1M) translating into improved project economics.

The completion design used for Calima 2 was optimised for the type of reservoir conditions encountered in the well. The initial peak flow rate from this well, in excess of 10 mmcf/d, was similar to the Saguaro results above in Figure 1. Replicating these rates going forward from future wells would translate to an increase in the estimated ultimate recoveries (EUR's) from each well. The Company's Reserve report lodged 14 July 2020[1] has EUR's at 8.4 BCF.

[1] See Calima Energy ASX Announcement 14 July 2020. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcements and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Upper Montney (Calima 3 Well)

This pressure data from Calima 3 compares favorably with other Upper Montney wells at similar depths in the Nig Creek area by Storm Resources and Chinook Energy at Birley Creek to the south. Analogue producers at Birley Creek, have an IP90 liquids rate of 150 bbl/d and CGRs of over 45 bbl/mmcf.

The Calima 1 well cored ~ 50m of the Upper Montney, comprising variably bioturbated dolomitic/calcareous siltstone averaging 3 to 6% porosity with sporadic cm-scale coquinal stringers present in the interval targeted by Calima 3. Elsewhere in the Montney layers of coquina (rock comprised almost entirely of shell fragments) correspond to layers of super-productivity. The initial maximum recorder pressures of 13,386 kPa(a) in the Calima 3 well stabilised to a pressure of approximately 12,860 kPa(a) after 540 day's shut-in; reflecting load fluid leak-off and absorption into the induced fracture network and rock matrix.

The completion designed for Calima 3, being similar to Calima 2, was not optimized for a normally pressured reservoir, explaining why it took longer than expected for the well to clean up. The higher proppant loading meant that the large volumes of water pumped into a normally pressured reservoir inhibited the early flow of hydrocarbons. Importantly, the recorder data has now verified the potential productivity of the reservoir, the primary purpose of the down hole gauges.

Evolving Upper Montney Completions

Recent Upper Montney wells with similar to Calima 3 have been completed using ball and seat technology with 30-40 stages across 1,500-2,500 m laterals and 50-65 m frac spacing. Their proppant tonnages range between 55-65t/stage and fluid volumes averaging 300m^3 per stage. These are far less intense completions than were applied in Calima 3 (which was a 92 stages, with 30m spacing and proppant of ~45t/stage with ~275 m^3 fluid volumes) which means that future wells can be drilled at significantly lower costs, improving overall economics.

Core Analysis Report

Canadian Discovery are in the process of incorporating this new pressure data into a larger study which includes detailed analysis of the core collected from the Calima 1 well. The Calima 1 well recovered 230m of core which represents over 90% of the entire Montney. This is relatively rare and provides a

wealth of information on not just the Upper and Middle Montney but also the Lower Montney where some Operators in British Columbia have reported encouraging results.

Micheal Dobovich, Calima's Canada President commented:

"These are positive results which confirm the excellent productive capacity of the Montney section tested by the Calima 2 and 3 wells. The Middle Montney pressures and rock characteristics are as expected and confirm the productive nature of the horizon. *The enhanced reservoir characteristics of the Upper Montney combined with normalized pressures explains a great deal about why it took longer than anticipated to establish strong flow rates from that interval. Our development plan will now be based on completion designs optimised for each interval. The work on the core and pressure data continues and we look forward to providing future updates as the work is completed".*

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