

30 September 2019

**ASX Release**  
**SM58 011 BP01 Well Report**

- **SM58 011BP01 reaches final total depth of 11,179 feet measured depth**
- **The well will be temporarily suspended for future production from the Upper O Sand after installation of a platform and pipelines**
- **At total depth the well was still drilling the high quality Lower O Sand section with good oil shows, but due to poor hole conditions was unable to penetrate the entire Lower O section.**
- **Mud log data indicates a total hydrocarbon bearing interval thickness in the Lower O section of between 180 and 250 feet**
- **Based on the results of this well, the first new development well to be drilled off the future G platform will be designed to test and produce from this Lower O section**

Byron Energy Limited (“Byron or the Company”) (ASX: BYE) is pleased to provide the following update on the Company operated SM58 011 BP01 well currently testing the Lower O Sand section in the Cutthroat Prospect on its South Marsh Island 58 lease in the Gulf of Mexico.

Since the last update Byron has been able to deepen the 4 ¾” hole an additional 70 feet to a final total depth of 11,179 feet Measured Depth (“MD”). The hole conditions were extremely unstable primarily due to the very slim hole that was required as a result of the casing incident which occurred several weeks ago. This problem was further exacerbated by the fact that well bore was drilling a thick, high-quality hydrocarbon saturated sand sequence and it was deemed imprudent to continue drilling under these difficult conditions. At total depth, Byron made several attempts to run wireline logs in the open hole section to total depth, but was unable to do so.

The purpose of deepening the SM58 011 BP01 well below the casing, set across the 300 foot thick Upper O Sand pay section, was to determine if the seismic anomaly below the Upper O Sand was also caused by hydrocarbons. The Lower O Sand seismic anomaly covers an area approximately two thirds the size of the Upper O Sand. The attached schematic depicts where the mud log shows were observed in the SM58 011 BP01 well. While drilling this well the Company has observed that where wireline data was collected over the Upper O Sand and can be compared to the mud log, the mud log reliably differentiates hydrocarbon bearing sands from water bearing or tight sands. In the lower part of the hole, the well bore encountered over 180 feet of high quality mud log shows indicating the likely presence of hydrocarbons in good quality thick sands in the Lower O Sand section based on similar responses in the Upper O Sand.

Byron also collected isotube data from the slim hole section similar to what was collected at the Company's SM71 lease. Isotubes are used to collect samples of gas as the well is drilled through prospective section. These samples are then sent to a lab and various hydrocarbon ratios are computed. The zone between 11,000 feet and 11,179 feet based on the mud log, indicated the presence of high quality sand with samples that had dull yellow fluorescence with a fast streaming cut and a bright milky residue ring which is typically associated with oil reservoirs in this region. The isotube data collected over this same 180 foot interval, had computed hydrocarbon ratios that were identical to those ratios recovered from samples that Byron collected from the D5 Sand reservoir at SM71. Based on this, the Company would expect to produce similar high quality light oil from this 180 foot interval. Importantly it should also be noted that the wellbore only penetrated the upper half of the seismic anomaly and the base of this interval has not yet been drilled.

Whilst it was not possible to collect sufficient open hole electric logging data to compute a pay count for this well, Byron is confident based on the mud log shows and the isotube data, that commercial hydrocarbons are present in the Lower O Sand.

Accordingly the first development well that Byron will drill from the future SM58 G platform will be designed to test an optimum location to produce the hydrocarbon in the Lower O Sand Cutthroat prospect. This well will be designed with much larger casing sizes and the Company will also investigate the use of synthetic mud systems to help mitigate the drilling problems encountered in the deeper section.

Current operations are ongoing to cement and seal off the open hole portion of the SM58 011 BP1 well and to mudline suspend this well so that it ultimately can be completed and placed on production when the G platform is set later next year. Byron expects the mudline suspension to take approximately one week and at which time the rig will be released.

**Byron's CEO, Maynard Smith had this to say about the SM58 011 well:-**

*"The data collected from the SM58 011 BP1 Well has proved up a very substantial hydrocarbon accumulation that is transformational for our company. Of course, to develop this exciting opportunity we require funding and as indicated in our recent releases we are engaged in discussions with a number of financial institutions. Based on indications we have had to date we are highly confident that we will be able to secure a suitable funding package. Shareholders can rest assured that we are diligently pursuing all the avenues available and that we will implement what we ultimately believe will be the optimal structure to fund the construction of the SM58 platform, pipelines and facility to enable production to commence from our discoveries at SM58."*

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**About Byron:**

**Byron Energy Limited** ("Byron or the Company") (**ASX: BYE**) is an independent oil and natural gas exploration and production company, headquartered in Australia, with operations in the shallow water offshore Louisiana in the Gulf of Mexico. The Company has grown through exploration and development and currently has working interests in a portfolio of leases in federal and state waters. Byron's experienced management team has a proven record of accomplishment of advancing high quality oil and gas projects from exploration to production in the shallow water in the Gulf of Mexico. For more information on Byron please visit the Company's website at [www.byronenergy.com.au](http://www.byronenergy.com.au).

BYE SM58 011 BP01

Mud Log Total Gas

Resistivity Log

Gamma Ray Log

Mud Log Sand %

Liquids Rich Gas  
Upper O Sand

Casing

Oil Shows  
Lower O Sand

Increased mud weight  
to kill gas and stabilize hole

Lowest known O Sand oil Shell #3

TD 11179

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