



## Presidio 52#1 Well is successfully TD with very good to excellent oil and gas shows in both primary and secondary targets

Helios Energy Ltd (ASX Code: HE8) (**Helios** or **Company**) reports that the Presidio 52#1 well has been successfully drilled to a total depth (**TD**) of 8,806 feet.

During drilling to 8,806 feet, the Presidio 52#1 well encountered the lower bench of the Ojinaga Formation (primary target) but also the Eagle Ford Shale Formation (secondary target) as well as two older (deeper) Cretaceous units being the Buda and Georgetown Formations (both secondary targets).

### Lower Bench of the Ojinaga Formation

The lower bench of the Ojinaga Formation was encountered during drilling at the depth of 6,632 feet and the lower bench of the Ojinaga Formation is 793 feet thick.

### Eagle Ford Shale

The Eagle Ford Shale was encountered during drilling at a depth of 7,425 feet and is 849 feet thick (with the deepest 235 feet also referred to as the Boquillas Formation).

### Very good to excellent oil and gas shows

Very good to excellent oil and gas shows were observed throughout the drilling of the entire lower bench of the Ojinaga Formation and throughout the drilling of the entire Eagle Ford Formation (which includes the 235 feet of the Boquillas Formation which ends at the casing point in the Presidio 52#1 well of 8,255 feet).

Gas was consistently high throughout the drilling through the entire lower bench of the Ojinaga Formation and throughout the drilling of the entire Eagle Ford Formation and reached over 8,000 units. From the gas isotope analysis, it shows the wetness ratios are between 24-30% which is corresponding to the oil associated gas in the genetic gas classification.

At a depth of 8,255 feet (in the Boquillas Formation), it was necessary to increase the mud weight to 11.5 pounds per gallon (**ppg**) to manage the

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gas levels in the well.

Helios has extracted 30 rotary sidewall cores from the lower bench of the Ojinaga Formation and the Eagle Ford Formation (which includes the 235 feet of the Boquillas Formation) all of which had live black oil on the outside of the cores and core staining. Cuttings retrieved from the core tool were also covered with oil.

The strong observed oil and gas shows, analysis of the log data, analysis of the formation micro imaging (FMI) and the Ultra Sonic Scanner data, and the separation on the resistivity log, suggests there are several highly naturally fractured intervals (with micro fracture halos) in both the lower bench of the Ojinaga Formation and the Eagle Ford Shale Formation (including in the Boquillas Formation).

### **Boquillas Formation**

The 235 feet interval between 8,030 feet and the casing point of 8,255 feet can also be referred to as the Boquillas Formation. The Boquillas Formation is a unit composed of alternating beds of organic rich shale, marl and limestone. The Boquillas interval is time equivalent to the lower Woodbine organic shales found in Madison and Brazos Counties, Texas, USA. Strong oil and gas shows were observed over the 235 feet of the Boquillas Formation. Analysis of the sonic scanner data shows that this 235 feet interval of Boquillas Formation is highly fractured with open fractures. Side wall cores taken from the Boquillas Formation are currently being analyzed, with preliminary observations verifying oil and gas shows.

### **Buda and Georgetown Formations**

Commencing from the casing point located at 8,255 feet, a 4-1/2-inch slim hole was drilled through the Buda and Georgetown Formations. The Buda Limestone was encountered at 8,261 feet and the Georgetown Limestone was encountered at a drilling depth of 8,403 feet and penetrated 403 feet before the Presidio 52#1 reached TD.

Several small intervals in the Georgetown Limestone (occurring between 8,412 feet and 8,618 feet) had drill breaks and good oil shows and associated fluorescence, with oil also being observed in the drilling mud. However, the analysis of the logs also indicated very low porosity in the Buda Limestone (less than 3%) and most Georgetown Limestone (less than 6%).

Even the evidence of oil and gas in thin, porous and possibly dolomitic zones (where porosity is greater than 5% to 6%) in the Georgetown Limestone is of considerable interest to Helios however it is of less significance than our primary interest being the 1,623 feet across the lower bench of the Ojinaga Formation and the Eagle Ford Shale Formation (including the Boquillas Formation) where strong oil and gas shows have been observed coincident with highly naturally fractured rock intervals.

### **Forward Planning**

The Presidio 52#1 well has reached TD and is cased down to 8,255 feet. Helios is currently designing a completion program for the both the lower bench of the Ojinaga Formation and the Eagle Ford Shale Formation (including the Boquillas Formation) of the Presidio 52#1 well. The strong observed oil and gas

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shows, analysis of the log data, analysis of FMI and sonic scanner data, and the separation on the resistivity, suggests there are several highly naturally fractured intervals (with micro fracture halos) in both the lower bench of the Ojinaga Formation and the Eagle Ford Shale Formation (including in the Boquillas Formation). These may all be interpreted as intervals meriting future fracked horizontal or lateral bore holes. Equally, due to their large number, they may be interpreted as intervals for co-mingling after being fracking in a vertical completion. Helios is currently working on the necessary preparations required for the completion which is planning to commence in the end of August.

For further information, please contact:

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**Competent Person's Statement**

*The information in this ASX announcement is based on information compiled or reviewed by Mr Neville Henry. Mr Henry is a qualified petroleum geologist with over 49 years of Australian, USA and other international technical, operational and executive petroleum experience in both onshore and offshore environments. He has extensive experience of petroleum exploration, appraisal, strategy development and reserve/resource estimation, as well as new oil and gas ventures identification and evaluation. Mr Henry has a BA (Honours) in geology from Macquarie University.*

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