



Helios Energy Ltd  
31 October 2022

## Quarterly Activities Report

### Quarter Ending 30 September 2022

Helios Energy Ltd (ASX Code: HE8) (**Helios** or **Company**) is pleased to report its activities for the quarter ended 30 September 2022.

### 4 Stage Vertical Frack of the Presidio 52#1 Well

During the quarter, Helios completed the design of the frack job for the Presidio 52#1 well.

Helios will undertake a 4 stage vertical frack across a 1,623 feet interval in the Presidio 52#1 well, which is the distance between the commencement of the lower bench of the Ojinaga Formation at 6,632 feet and the cessation of casing at 8,255 feet at the bottom of the Eagle Ford Shale.

The frack job has been specifically designed to reflect the highly naturally fractured intervals existing within this vertical interval of 1,623 feet. It is planned to co-mingle production from the 4 fracked intervals after completion of the frack job.

Also during the quarter, Helios worked on finalizing the location preparation, re-grading and re-forming the main location road, filling the frack water reservoir and completing all other necessary preparations for the completion of the Presidio 52#1 well with the most important of those being scheduling a fracking crew.

### Successful Drilling of Presidio 52#1 Well

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 in the Presidio 52#1 Well

The lower bench of the Ojinaga Formation in the Presidio 52#1 well was encountered during drilling at the depth of 6,632 feet and the lower bench of the Ojinaga Formation is 793 feet thick.

ASX Code: HE8

#### Directors

Hui Ye  
Non-Executive Chairman

Richard He  
Managing Director

Robert Bearden  
Non-Executive Director

Nicholas Ong  
Non-Executive Director

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Helios has successfully tested and produced oil from all the three wells it has drilled (namely, Presidio 141#2, Quinn Creek 141#1 and Quinn Mesa 113) which have penetrated the Ojinaga Formation. The oil analysis shows that the oil in the Ojinaga Formation is sourced from the Eagle Ford Shale Formation.

#### **Eagle Ford Shale in the Presidio 52#1 Well**

The Eagle Ford Shale was encountered during drilling the Presidio 52#1 well at a depth of 7,425 feet and is 836 feet thick (with the deepest 235 feet also referred to as the Boquillas Formation).

#### **Very good to excellent oil and gas shows in the Presidio 52#1 Well**

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 corresponds to 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 gas levels in the well.

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) in the Presidio 52#1 well.

#### **Boquillas Formation in the Presidio 52#1 Well**

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 organic rich shale, siltstone 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.



## Stratigraphy of the Presidio Oil Project located in Presidio County, Texas, USA

Gulf Coast		Presidio Oil Project Subsurface
Series	Division or Group	
Gulf Cretaceous	Austin	San Carlos (Olmos)
		Austin Chalk age equivalent formation (called the Ojinaga)
	Eagle Ford	Upper Eagle Ford Shale
		Boquillas
Comanche Cretaceous	Washita	Buda
		Eagle Mt SS
		George Town
	Fredericksburg	Kiamichi
		Edwards
	Trinity	Glen Rose
		Hosston/Travis Peak

### Presidio 141#2 Well

The Presidio 141#2 well is a shallow well with a total measured depth of 5,846 feet including the fracked 1,400 feet horizontal portion which was drilled into the primary target zone within the lower bench of the Ojinaga Formation. The serial pressure build up testing of the Presidio 141#2 well has been completed and artificial lift installation is nearing finalization.

### Presidio Oil Project – Infrastructure

Access to the 4 wells that constitute the Presidio Oil Project (Presidio 52#1, Presidio 141#2, Quinn Creek 141#1 and Quinn Mesa 113) is provided by a 25 mile unsealed, formed road constructed by Helios that branches off the sealed US-90 highway which carries heavy truck and passenger vehicle traffic. The 4 oil wells have access to ample supplies of fresh water provided by local water wells drilled into shallow water



aquifers. The El Paso Oil Refinery located in El Paso, Texas has a processing capacity of 135,000 barrels of oil per day and is located 170 miles from the Presidio Oil Project. Crude oil is sold there by truck delivery.

The Presidio Oil Project is located 250 miles (or 5 hours by truck) from Midland, Texas which is the epicenter of the Permian Basin oil industry. All rigs, supplies and services required for the Presidio Oil Project are sourced from Permian Region. Oil production in the Permian Region has rebounded strongly in the past 12 months and in August 2022 reached approximately 5,450,000 bopd.

#### **Leases Acquired or Disposed of During the Quarter**

During the quarter, Helios choose to let expire 7,720 non-core acres the subject of its Presidio Oil Project. Helios now has a 70%WI in a total of 52,264 gross acres (36,584 net acres). All 52,264 gross acres the subject of the Presidio Oil Project are located in the south-west portion of Presidio County, Texas and are the subject of oil and gas lease agreements entered into with private oil and gas mineral rights owners.

#### **Corporate**

Helios has no debt and cash at bank at the end of the quarter was \$15,761,000.

#### **Related Party Payments – Item 6 of Appendix 5B**

Payments to related parties listed in Item 6 of the Appendix 5B are to Executive and Non-Executive Directors for personal exertion salary and directors fees.

For further information, please contact:

**Richard He**  
**Managing Director**

#### **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 47 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.*