

## **Helios Energy Ltd**

8 April 2019

Presidio Oil Project

Helios Energy Ltd (ASX Coopleased to announce that described Project has commenced.

The Presidio 141#2 well is long. Helios Energy Ltd (ASX Codes: HE8, HE8OA) (Helios or Company) is pleased to announce that drilling of the third well into the Presidio Oil

The Presidio 141#2 well is located 2,300 feet to the east of the existing Quinn Creek 141 discovery well. The proposed total measured depth of the well is 5,900 feet and this includes a planned 1,400 feet horizontal portion into the primary target interval being the lower Ojinaga Formation.

### Presidio 141#2 well

The well is located 600 feet structurally updip of the existing Quinn Creek 141 discovery well and will firstly drill through the entire San Carlos, Ojinaga and Eagle Ford Shale Formations. The vertical portion of the well will cease at the bottom of the Eagle Ford Shale Formation.

Logs will then be run and rotary cores extracted for analysis. After plugging off that part of the vertical well which penetrates through the Eagle Ford Shale Formation a 1,400 feet lateral leg will then be drilled to the west towards the Quinn Creek 141 discovery well entirely within the lower bench of the Ojinaga Formation.

The horizontal portion of the well will be steered based on 2D and 3D seismic data and the data from the 2 existing wells (Quinn Creek 141 and Quinn Mesa 113) drilled by Helios. The well will then be cased it is planned to then perform a multi-stage fracture stimulation of the 1,400 feet lateral portion.

## Oil Discovery in the Ojinaga Shale Formation

Helios successfully completed a one stage frack in the vertical Quinn Creek 141 well to test oil shows and log indications between 4,744 and 4,880 feet in the lower Ojinaga Formation.

The Company has previously reported to ASX that the Quinn Creek 141 well flowed 260 barrels of oil and 1,345 barrels of completion fluid in 168 hours (7 days). The oil produced is good quality, mature, 39 degrees API gravity light oil similar in composition to Eagle Ford oils.

ASX Code: HF8

#### **Directors**

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Gas was also produced at 456 mcf per day on a 34/64ths of one-inch choke. As the well cleaned up and the percentage of completion fluid recovery rose, a steadily increasing oil cut was observed. Total load recovery (until the lower interval was shut in) was approximately 35% (3,509 barrels of completion fluid out of 10,187 barrels of completion fluid injected).

## **Highly Naturally Fractured Lower Interval**

Formation micro-imaging (**FMI**) logs from the Quinn Creek 141 well indicate that the lower interval of the Ojinaga Formation in the Quinn Creek 141 well is highly naturally fractured.

## Thick Lower Bench of the Ojinaga Formation

The lower bench of the Ojinaga Formation is approximately 330 feet thick with uniform rock characteristics. It is predominantly black shale with micro laminations of siltstone and fine carbonates.

## Easily Mapped with 2D & 3D Seismic

The lower bench of the Ojinaga Formation shows well on both 2D & 3D seismic and is easily mapped.

## Porosity and Permeability in Lower Bench of the Ojinaga Shale Formation

The lower bench of the Ojinaga Shale Formation has porosity predominately ranging between 4% to 12.5% and permeability up to 0.75  $\mu$ d (micro darcys). Analysis of the Quinn Creek 141 well and surrounding historical wells clearly shows that these porosity and permeability characteristics in Presidio County in the Ojinaga Shale Formation exceed the characteristics present in the Eagle Ford Shale in the Karnes Trough which is the premier sweet spot of the Eagle Ford Shale play.

## Presidio Oil Project - Infrastructure

Access to the Presidio 141#2 well location 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 Presidio 141#2 well location has 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 Midland, Texas. Oil production in the Permian Basin is approximately 3,800,000 bopd.



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

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

## Presidio Oil Project - 70%WI

Helios must drill 3 wells to earn a 70% WI in the initial 6,400 acres (4,480 net acres) which comprise the Presidio Oil Project and a 70% WI in each of these 3 wells. Helios to date has drilled 2 of those 3 wells, being the Quinn Creek 141 vertical well and the Quinn Mesa 113 vertical well. Helios has until 30 June 2019 to drill the third well. Once the Presidio 141#2 well has been completed, Helios will have earned a 70%WI in the 3 wells and the initial 6,400 acres (4,480 net acres) which comprise the Presidio Oil Project.



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 Eldar Hasanov. Mr Hasanov is a qualified petroleum geologist with over 21 years of experience in the USA, Russia, Azerbaijan, Kazakhstan, the Middle East, Turkey, Indonesia and other international areas involving technical, operational and executive aspects of petroleum exploration and production, in both onshore and offshore environments. He has extensive experience in petroleum exploration, appraisal and reserve and resource estimation, as well as in identifying and evaluating new oil and gas ventures. Mr Hasanov has a Masters degree in Petroleum Geology. He is a member of the American Association of Petroleum Geologists.