

## Horse Hill Developments Ltd ("HHDL" or the "Company")

### Portland extended well test ("EWT") successfully completed, Kimmeridge EWT to commence Horse Hill-1 ("HH-1") Portland and Kimmeridge oil discovery, Weald Basin, UK

#### Key Points:

- Final HH-1 Portland flow test sequence successfully completed, all Portland operational objectives achieved.
- Successful Portland re-perforation programme targeted 114 ft of oil pay, adding 14 ft of new pay. Following re-perforation, well productivity increased by up to 65%.
- Independent oil consultants Xodus Group's ("Xodus") analysis of flow and pressure data interprets that further HH-1 Portland vertical well optimisation could achieve a forecast sustainable initial 24/7 pumped rate of around 362 barrels of oil per day ("bopd")\* when full scale long-term production commences, exceeding original estimates. This analysis is key as it establishes the absolute flow potential of the Portland reservoir for future production wells.
- Given the knowledge of the Portland's true flow potential, plans are now being formulated to drill either the HH-1z sidetrack or HH-2 new drill as a horizontal Portland appraisal well, with a targeted\* sustainable daily production rate of 720 to 1,080 bopd, 2 to 3 times the forecast calculated\* HH-1 vertical well rate of 362 bopd. All planning permissions, Environment Agency permits and the HH-2 well cellar are in place for a horizontal well. If successful it is envisaged that all future Portland production will be via horizontal wells.
- The Company's economic modelling indicates that HH-1 Portland is robustly commercial at even the lowest observed sustainable daily rate of 140 bopd and at oil prices below \$60 per barrel. A formal Horse Hill Developments Ltd ("HHDL") declaration of Portland commerciality is therefore expected shortly following receipt of Xodus' final connected oil volume analysis. A planning application for long term production is planned to be submitted to Surrey County Council shortly, prior to the completion of the forthcoming Kimmeridge EWT programme. Full-scale long-term production, targeted for 2019, is subject to co-venturer and regulatory approvals.
- All 36° API Brent quality oil produced during the EWT is "dry", containing only 0.02% water.
- Preparation for the primary EWT objective, to establish the commerciality of the Kimmeridge Limestone 3 ("KL3") and KL4 oil pools underlying the Portland, has now commenced.
- Kimmeridge testing will begin in the uppermost KL4 oil pool immediately following the removal of two suspension plugs and installation of a new completion string straddling the two Kimmeridge oil pools.

**Note:** \*There can be no absolute guarantee that forecast, targeted or calculated rates of production will be achieved.

UK Oil & Gas PLC (London AIM: UKOG) announces that HHDL, the operator of the HH-1 Kimmeridge and Portland oil discovery, located in licence PEDL137, in which UKOG holds a 46.735% beneficial interest, has informed the Company that the final Portland EWT sequence has been successfully completed and that all Portland operational test objectives were achieved.

Following a final long duration pressure build up test, preparations for the primary Kimmeridge EWT are now underway. The Kimmeridge EWT's goal is to establish the commerciality of the underlying KL3 and KL4 oil pools, which in 2016 flowed 40° API crude naturally to surface at an aggregate implied stable dry oil rate of 1,365 bopd. Further updates will be provided as the Kimmeridge EWT progresses.

**Stephen Sanderson, HHDL Director, commented:**

"We are delighted that the HH-1 re-perforation and optimisation programme has resulted in the forecast sustainable Portland production rate of 362 bopd, which significantly exceeds our initial test programme expectations. This high rate, together with our economic modelling, strongly indicates that the HH-1 Portland vertical well is commercially viable and robustly economic at the lowest observed sustainable test rates and the predicted future sustainable production rates. HHDL's internal declaration of Portland commerciality is therefore expected shortly following receipt of Xodus' final connected oil volume analysis.

We also look forward to the near-term prospect of a new Portland horizontal appraisal well attaining a sustainable test rate in early 2019. This commercial result would make the Portland a significant asset and would underpin both the Horse Hill oil discovery's and the Company's future.

In the light of Portland success, we now eagerly anticipate the start of the Kimmeridge test programme, the goal of which is to establish the commerciality of the underlying KL3 and KL4 oil pools which flowed so prolifically in the 2016 short duration test programme."

**Additional EWT Information**

In order to calculate the Portland oil volume connected to, or "seen by" HH-1, steady state flow conditions were required (i.e. stable; oil rate, gas oil ratio, bottom hole and tubing head pressures). Consequently, post perforation, production was restricted to sustainable 24/7 rates of between 140-160 bopd. It should be noted that these rates do not reflect the Portland's full flow potential that could be achieved either via successful further optimisation of the HH-1 vertical well or a new horizontal production well.

During these sustained flow periods, intermittent natural flow was evident, with metered rates at the separator exceeding the nominal pumped volume by up to 50 bopd, with the highest rate recorded of 191 bopd. Gas rates at the test separator and through the enclosed flare remained broadly constant at around 15,000 cubic feet per day.

Throughout testing, sustained pumped oil rates were recorded with stable bottom hole pressures of around 200 psi below the initial reservoir pressure of around 915 psi. Following shut-in periods, bottom hole pressures recovered rapidly back to initial reservoir pressure, indicating good connectivity within the Portland oil pool. The observed pressure response during the EWT is interpreted to have positive implications for oil recovery efficiency during planned future long-term production.