



EMPIRE OIL & GAS NL

ASX RELEASE

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## Red Gully North-1 Remediation Update

- Cement bond log analysis confirms successful C sand remedial cement squeeze
- Isolation of the high permeability water zone above the C sand has been achieved
- The workover program will be suspended after running the Upper D sand cement bond log (circa 10/11 December) until 28 December. This will allow the Enerdrill Rig 1 crew time to take field leave due to imminently reaching personnel fatigue safety limits
- Currently running in the hole to drill out the bridge plugs and cement below the Upper D sand to acquire a further cement bond log

Perth Basin domestic gas producer, Empire Oil & Gas NL (Empire, ASX:EGO) provides the following update on the Red Gully North-1 (RGN-1) project.

### Progress

The minor rig equipment failure which occurred on the evening of 1 December was resolved and operations re-started by midday on 2 December. The remedial cement squeeze operation to isolate the C sand from the high permeability water zone proceeded to plan. A cement bond log was then run to evaluate the improvement in the cement integrity. This log indicates that there is good cement integrity over the high permeability water zone and a further approx. 700 metres of good cement behind casing providing enhanced well integrity.

A milling tool string was subsequently run to remove the cement retainers and excess cement inside the 7-inch casing. The milling tool became stuck just below the C sand perforations. The mill and tool string was removed from the hole and a smaller diameter mill is now being run to allow the cement and retainers to be removed. A cement bond log to evaluate cement integrity between the C and Upper D sand will then be run.

The completion packer removal and recent milling issues have extended the planned workover by approximately 13 days, beyond the original plan of 24 days (including rig move/rig up and not including testing time). This has led to a situation where fatigue management has become an important concern for the safety of the workover contractor's (Enerdrill) personnel. In conjunction with the Enerdrill management it has been decided to temporarily suspend operations for approximately 16 days to allow the crews to take necessary field leave. The well will therefore be made safe in accordance with industry practise and all personnel and, where necessary, equipment demobilised. The operations are planned to resume on 28 December 2016 with the remainder of the completion and testing program to be complete around the middle of January 2017. This operational suspension will have minimal effect on the project costs as a zero rate has been negotiated for the rig and accommodation remaining at site.

**Participants**

Empire Oil and Gas 100%

**Plan/Next Steps**

The current plan is to:

- Clean-out the well and run cement bond log to evaluate cement integrity between the C and Upper D sand

Suspend workover operations until 28 December, then:

- Clean-out well, re-perforate and run new two zone isolation completion
- De-mobilise the workover rig and crew
- Mobilise testing equipment and crew and test well.

**Location/History**

RGN-1 is situated in EP 389 approximately four kilometres to the north of the Company's Red Gully Production Facility. RGN-1 was drilled in November/December 2015 and discovered 53 metres of moveable gas and condensate. In March/April 2016 RGN-1 was successfully completed, however the test results on the Upper D and C sands were compromised by a nearby water production zone due to a shale washout-affected cement bond.

The RGN-1 remedial cementing workover and test is designed to isolate the water zone connecting with the Upper D and C sand hydrocarbon zones. A new well completion is then planned which will be followed by the individual testing of the Upper D and C sands.

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**About Empire Oil & Gas**

Empire Oil & Gas NL ('Empire' or the 'Company') is an onshore conventional gas and condensate producer and explorer listed on the Australian Securities Exchange (ASX: EGO) with key assets in the Perth Basin in Western Australia.

The Company's producing assets at Red Gully are less than 150 kms from the city of Perth where there is a strong gas market. Since commencing operations in 2013, the 100% owned Red Gully Processing Facility has produced and delivered over 8,350 Terajoules (TJ) of gas. Gas produced to date has been contracted to Alcoa of Australia (Alcoa) and delivered through the Dampier to Bunbury Natural Gas Pipeline (DBNGP), which runs close to the Red Gully Processing Facility (RGPF). Condensate is transported via road to BP.

Empire is the holder of the largest net onshore acreage in the highly prospective Perth Basin with its production licenses and permits covering more than 8,000 km<sup>2</sup>, representing 46% of the currently granted acreage in the onshore Perth Basin. Close to pipeline infrastructure and with rapid commercialisation opportunities, the Company has significant exploration potential in an underexplored, proven petroleum basin.

Empire's vision is to sustainably grow the business into a mid-tier exploration and production company. Empire's strategy is to be the Perth Basin operator of choice, safely supplying WA domestic gas by growing the Red Gully production hub, delivering reserves and production growth by drilling material quality exploration prospects in the high profit margin onshore Perth Basin and, enabling Empire to attract quality farm-in partners to assist in accelerating growth plans.