

31 May 2016

## **Beach Marcelle Waterflood Commences**

The Company is pleased to provide an update on its waterflood projects in Trinidad with the following highlights:

- **Injection on the flagship Beach Marcelle waterflood project has commenced;**
- **Two injector wells are being used to inject water, at an average initial rate of approximately 600 bwpd, which will gradually increase as additional wells and surface facilities are commissioned;**
- **Waterflood injection on the Morne Diablo project is continuing, with water rates increased to the maximum volume of water currently available;**
- **Agreement reached with Petrotrin to access additional water supply for Morne Diablo project with contracts to be signed shortly; and**
- **Waterflood projects will be key contributors to the Company’s production growth over the coming years.**

## **Beach Marcelle Waterflood – South East Block**

The project implementation on the South East block of Beach Marcelle field has been successfully progressing over the last months. As a result, initial water injection has commenced, on schedule with the previously anticipated timelines.

The waterflood pattern on the block comprises 10 injector and 15 producer wells. The selected wells are undergoing workover operations using two workover rigs, with five wells completed as injectors and four as producers to date.

Two injector wells are currently being used to inject water, at an average initial rate of approximately 600 barrels of water per day (“bwpd”). In line with the planned implementation programme, injection volumes will be low at first, gradually increasing as additional wells and surface facilities are commissioned. Injected water is expected to be available from shallow aquifer wells (water source wells). The selected water source wells are also currently undergoing workover operations.



**Above: New water injection pumps**

**Left: New injector well**

The first production as a result of waterflooding is anticipated during Q1 2017. The average production over the 8-year period is expected to be approximately 1,600 bopd, with production estimated over the plateau period of three years of 2,000 bopd.

The original oil-in-place in the South East block is estimated by the Company at 37.5 mmbbls, of which 6.2 mmbbls (17%) has been produced by primary depletion. Waterflooding is estimated by the Company to recover another 4.8 mmbbls over the next 8 years.

## **Morne Diablo Waterflood – Expansion Project**

As previously announced, the initial water injection on the project commenced in December 2015.

The waterflood plan involves the use of up to 14 injectors and 14 producers. Four injector wells are currently being used to inject water. The water injection has been increased from 150 bwpd to 250 bwpd, which is the maximum volume of water available at present from Range's production wells.

To get access to additional water source supply, Range has been negotiating with Petrotrin to use produced water from Petrotrin's existing operations, which will increase water injection by 3,000 bwpd. The Company is pleased to advise that the agreement with Petrotrin has been reached and expects to sign the contract shortly.

The Company will be constructing a new water pipeline to connect Morne Diablo field to Petrotrin's water treatment facility. The environmental approvals for use of the additional water and construction of the new water pipeline have been submitted to the regulatory body in Trinidad.

The average production over the 8-year period is expected to be approximately 200 bopd, and is forecast to be achieved when water injection is increased to approximately 3,000 bwpd.

The original oil-in-place in the expansion area is estimated at 6.5 million barrels of oil (mmbbls), of which 1.3 mmbbls (20%) has been produced by primary depletion. Waterflooding is estimated by the Company to recover another 0.6 mmbbls over the next 8 years.

## Additional Waterflooding Areas

The Company has identified additional areas around the previously drilled development wells in the South Quarry and Morne Diablo fields, which could be suitable for waterflooding. The Company will continue to evaluate these areas and study the field for waterflooding potential. If deemed economically feasible, Range will proceed with the relevant approvals to implement these projects.

As previously advised, Range and LandOcean are continuing to progress with finalising the terms for the US\$50 million trade financing package with Sinasure. Pending completion of the Sinasure facility, LandOcean will provide Range with credit terms of 720 days for all work undertaken as part of purchase order 2 of US\$50 million, including the waterflood programme.

### Yan Liu, Range's Chief Executive Officer, commented:

*"I am extremely pleased with the commencement of injection on our second waterflood project. Beach Marcelle is the largest waterflood project to be implemented in recent times in Trinidad and the team has been working tirelessly to bring it on line. It will be key to our production growth in the coming years, with first production from this project expected at the beginning of next year.*

*I look forward to working closely and leading our team during this period of unprecedented operational activity and demonstrating the results to all shareholders."*

### Contact Details

#### Range Resources Limited

Evgenia Bezruchko (Group Corporate Development Manager)

**e.** [admin@rangeresources.co.uk](mailto:admin@rangeresources.co.uk)

**t.** +44 (0)20 7520 9486

#### Cantor Fitzgerald Europe (Nominated Advisor and Broker)

David Porter / Sarah Wharry (Corporate Finance)

Richard Redmayne (Corporate Broking)

**t.** +44 (0)20 7894 7000