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## Explanatory Report

# Five-yearly Review of the Statement of Environmental Objectives for Drilling, Completion and Well Production Testing in the Otway Basin, South Australia

December 2018 (Draft)



<b>Document Control</b>					
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## 1 Introduction

The Beach Energy (Beach) *Statement of Environmental Objectives: Drilling, Completion and Initial Production Testing in the Otway Basin, South Australia (SEO)* was prepared and approved in 2013 to meet the requirements of the *Petroleum and Geothermal Energy Act 2000* and to cover Beach's petroleum drilling, completion and production testing activities in the onshore Otway Basin.

Regulation 14 of the *Petroleum and Geothermal Energy Regulations 2013* requires that an approved SEO must be reviewed at least once in every five years. Consequently, Beach has undertaken a review of the SEO in accordance with Regulation 14.

The SEO has been updated following the review. This document provides a summary of the revisions to the SEO and to the Environmental Impact Report (EIR) which was used as a basis for preparing the SEO.

## 2 Revisions to the EIR

### 2.1 Editorial

Editorial changes made to update the EIR include:

- Aspects such as legislation, references to government departments and superseded reference sources have been updated or deleted where appropriate.
- References to the marine environment have been removed as Beach's licence areas no longer extend to the coast.
- Maps, tables and figures have been updated.
- Other text has been updated where appropriate (e.g. description of Beach, summary of stakeholder consultation).

### 2.2 Description of Activities

The main changes made to the scope and description of activities are:

- The scope description has been updated to align with the scope of the draft Onshore Otway Basin Petroleum Production Operations EIR and SEO (which will provide coverage of production-related well operations when it is approved).
  - The technical term 'abandonment' has been replaced with the more generally understood term 'decommissioning'.
  - 'Well production testing' has been used to replace the term 'initial production testing' and the description simplified.
  - Drill pad and camp dimensions have been increased to cover the range of potential drilling rigs and site layouts that may be used.
  - Specific reference to the use of flare tanks during drilling has been added.
  - The description for cementing wells has been amended to focus on barrier controls, which are implemented to prevent crossflow between aquifers, aquifer contamination or further aquifer pressure reduction occurring. Figure 3 has been amended to show this.
  - The potential use of synthetic based muds for drilling deeper well sections in some wells has been added to the drilling activity methodology in Section 3.2.
  - Clarification of production testing parameters has been added in Section 3.4.
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## 2.3 Description of the Environment

Section 4 and Appendix 1 of the EIR have been updated and now align with the recently developed draft Onshore Otway Basin Petroleum Production Operations EIR.

## 2.4 Environmental Impact Assessment

The main changes made to the environmental impact assessment (Section 5) are:

- Reference has been added to the NEPM (National Environment Protection (Assessment of Site Contamination) Measure) in relation to assessment and remediation of spills (Section 5.1 and Table 5.1).
- Additional commentary has been added on use of flare tanks and flare stacks in Section 5.1, 5.4 and Table 5.1.
- Additional discussion and impact assessment regarding the use, handling and disposal of synthetic based muds has been added in Section 5.3 and Table 5.1.
- Risk ratings related to fire have been revised (Table 5.1).
- Specific reference to biosecurity procedures agreed with landholders has been added (Table 5.1).

## 3 Revisions to the SEO

### 3.1 Editorial

Editorial updates consistent with those in the EIR have been made.

### 3.2 Scope

The broad scope of the SEO remains the same. Relevant alterations include:

- The term 'initial production testing' has been replaced by 'well production testing' as noted for the EIR above.
- The technical term 'abandonment' has been replaced with the more generally understood term 'decommissioning'.
- The list the activities outside the scope of the SEO has been updated to align with the scope of the draft Onshore Otway Basin Petroleum Production Operations EIR and SEO (which will provide coverage of production-related well operations when it is approved).

### 3.3 Objectives and Assessment Criteria

The environmental objectives and assessment criteria are the sections of the SEO most integral to its use. The contents of these have been changed only where the review identified a genuine need for update, clarification or improvement.

The key changes are:

- Terminology has been updated consistent with the EIR (e.g. use of well production testing and decommissioning) as noted above.
- Assessment criteria wording has been revised for most objectives to align with updated wording developed in recently approved SEOs.
- Additional measures or modifications to wording have been included in the *Guide to How Objective Can Be Achieved* column, consistent with the changes noted for the EIR, including:
  - Specific reference to biosecurity procedures agreed with landholders (Objective 3)

- Additional measures related to handling, storage and disposal of synthetic based muds (Objective 4, 6)
- Updated wording regarding use of the NEPM (National Environment Protection (Assessment of Site Contamination) Measure) in relation to assessment and remediation of spills (Objective 4)
- Updated wording regarding casing and cementing, monitoring and decommissioning (Objective 5)
- Clarification of removal of sump contents by licensed waste contractors (Objective 6).
- Clarification of wording regarding wastewater disposal systems (Objective 10).

### **3.4 Incident Definitions**

Incident definitions have been modified to reflect updated definitions in recent SEOs.