

## Approval notice and statement of reasons

*Petroleum (Environment) Regulations (NT) (Regulations)*

Interest holder	<i>Santos QNT Pty Ltd ACN 083 077 196</i>
Petroleum interest/s	<i>EP 82, EP 105, EP 112 and EP 125</i>
Environment management plan (EMP) title	<i>Southern Amadeus 2D Seismic Program</i>
EMP document reference	<i>SAB-PLN-001, Rev 1</i>
DPIR EMP assessment document reference	<i>E2017/0021~0008</i>
Regulated activity	<i>Conducting seismic surveys</i>
Was the regulated activity referred <sup>1</sup> for consideration whether an environmental impact assessment or public environmental report was required?	<i>Yes E2016/0004~0039 (record number for notice of intent)</i>
Was an environmental impact assessment or public environmental report required?	<i>No E2016/0004~0040 (record number for NT EPA response)</i>
Date EMP was first submitted under reg 6	<i>14 September 2017</i>
Date further information was submitted under reg 10, if applicable	<i>NA</i>
Date of resubmission notice under reg 11(2)(b), if applicable	<i>NA</i>
Date EMP was resubmitted under reg 11(3), if applicable	<i>NA</i>

Date of decision

*30 / 11 / 2017*

Decision maker



Signature

*Kenneth Edward Vowles, Minister of Primary Industry and Resources*

### 1 Approval notice

1. The EMP is approved. reg 11(a)
2. The approval is subject to the following conditions: reg 12(2)
  - a. The regulated activity must be completed within 1 year after the date of decision.

<sup>1</sup> This refers to referral under the *Environmental Assessment Act (NT)* or the *Environment Protection and Biodiversity Conservation Act 1994 (Cth)*.

## 2 Statement of reasons

1. The EMP meets the approval criterion in reg 9(1)(a), because it contains all the information required by Schedule 1 of the Regulations. reg 9(1)(a)
2. The EMP meets the approval criterion in reg 9(1)(b) for the following reasons: reg 9(1)(b)
  - a. The nature of the regulated activity is as follows:
    - i. The regulated activity follows on from a seismic survey program carried out by the interest holder known as the *2016 Southern Amadeus 2D Seismic Program*. The regulated activity involves undertaking a 2D seismic survey, clearing of vegetation, 2D seismic recording via vibroseis for a single pass, and line and camp rehabilitation after recording.
  - b. The scale of the regulated activity is as follows:
    - i. A maximum of 400km of line is to be recorded. It will take approximately 2 months to record at points along that line. Recording is to occur with a single vibrator vehicle, vibrator service truck and instrument truck pass for each line of recording. This approach reduces the scale of operations that might otherwise be required. It is expected to require under 34 personnel and 16 vehicles in total. Comparatively, having regard to the line length of other 2D seismic operations that have occurred in the Territory over the past 5 years, the regulated activity is of a small scale.
  - c. In my view, the EMP is of a high quality, follows appropriate best practice standards for risk assessment and environmental risk management, is appropriately detailed and displays a high level of understanding of the matters it addresses.
  - d. Having regard to the above, the information in the EMP is appropriate for the nature and scale of the regulated activity to which it relates.
3. The EMP meets the approval criterion in reg 9(1)(c) for the following reasons: reg 9(2)(a)
  - a. I have considered reg 4(d) (which concerns the fundamental nature of the conservation of biological diversity and ecological integrity) as follows:
    - i. I believe the information I have regarding the existing biodiversity and ecosystems that are to be affected by the regulated activity; the effects that are likely; and the mitigative measures reasonably available, is sufficient.
    - ii. Environmental values and sensitivities relating to soil, baseline water conditions, native fauna and native flora have been identified in section 5 of the EMP and considered. Sensitive geological formations, such as salt pans, will be avoided.
    - iii. The EMP identifies and considers the various vulnerable, endangered and critically endangered species which grow in, or will be mobile within, the area in which the regulated activity will occur (see section 5.3 and Appendix 1).
    - iv. The potential risks (including from physical disturbance, noise, dust, erosion, waste, light, resource consumption, contamination from leaks and spills, pests, and vehicles) are assessed in section 6 of the EMP. The principal relevant control to address the relevant risks is minimisation of impact. This is a desirable measure as it prevents effects being greater than necessary.

A good example of minimisation is that clearing of vegetation will be only one blade wide and the blade will be kept shallow so as to only disturb minimal topsoil and vegetation rootstock (see Table 6-5).

- v. Taking controls into account, the EMP demonstrates that all environmental impacts and environmental risks relating to soil, baseline water conditions, native fauna and native flora are able to be reduced to a level that is as low as reasonably practicable and acceptable.
  - vi. The conservation of biological diversity and ecological integrity is vital to the achievement of ecologically sustainable development. Given the fundamental nature of this consideration, I have given central importance to the conservation of biodiversity and ecological integrity in weighing whether I am satisfied the approval criterion in reg 9(1)(c) has been met.
  - vii. The effects of the regulated activity will largely be temporary. The extent of direct impact on flora and fauna will be limited by the scale and duration of the activity, such that any disturbance or loss will likely be recovered in the medium term. The area to be affected is relatively small in comparison to the area of the bioregions in which the regulated activity will occur.
  - viii. If carried out in accordance with the EMP, the risk of the regulated activity to biological diversity is considered to be low.
  - ix. If carried out in accordance with the EMP, the risk of the regulated activity to ecological integrity is considered to be negligible.
- b. I have considered reg 4(a) (which concerns the integration of long-term and short-term economic, environmental, social and equitable considerations) as follows:
- i. The expression *environment* as defined in the Regulations relevantly includes the well-being of humans, structures made or modified by humans, amenity values of an area and economic, social and cultural conditions. The requirements under the Regulations include stakeholder engagement and a broad consideration of the environmental impacts and environmental risks of the regulated activity in question. In making that broad consideration, the long-term and short-term environmental impacts and environmental risks were identified and assessed in the EMP. In this way, the concept of integration has been implemented.
  - ii. In this instance, there are no particular contests between economic, social and environmental considerations that require further mention. However, I do note that in carrying out the regulated activity, low severity, temporary impacts on landowners and pastoral businesses may occur. Measures in the EMP demonstrate that these impacts will be minimised.
  - iii. Accordingly, I am satisfied that the concept of integration has been taken into account.
- c. I have considered reg 4(b) (which concerns the 'precautionary principle') as follows:
- i. The regulated activity does not pose a threat of serious or irreversible environmental damage which warrants the application of the precautionary principle.
- d. I have considered reg 4(c) (which concerns the principle of intergenerational equity) as follows:

- i. The environmental burdens of the regulated activity will not disproportionately affect present or future stakeholders. Options for future use of the affected land, access to and the quality of the environment and cultural heritage will not be compromised by the regulated activity.
  - ii. Accordingly, I believe that the carrying out of the regulated activity in accordance with the EMP will not have an effect contrary to the principle of intergenerational equity.
- e. I have considered reg 4(e) (which concerns the promotion of improved valuation, pricing and incentive mechanisms) as follows:
- i. In accordance with 'the polluter pays' principle:
    - (1) The interest holder will cover the cost of rehabilitation of the areas disturbed by the regulated activity, as is set out in section 4.9 of the EMP.
    - (2) If rehabilitation is not appropriately undertaken by the interest holder (eg in the event of insolvency), a security is held by the Minister which is considered adequate to cover the costs of doing so.
  - ii. Through the above, the environmental costs are imposed on the interest holder who is to gain the benefit from the regulated activity, and there is an incentive for the interest holder to complete rehabilitation work in order to recover the security.
- f. No environmental report or statement has been required to be prepared under the *Environmental Assessment Act* (NT) in relation to the regulated activity. This indicates that the NT EPA was not of the opinion that the regulated activity is reasonably considered to be capable of having a significant effect on the environment. reg 9(2)(b)
- g. The NT EPA did provide some preliminary recommendations arising from its review of the referral of the regulated activity, which were taken into account, as relevant, by the interest holder in finalising the EMP, and by me in making this decision.
- h. The existing environment along with its particular values and sensitivities is appropriately identified in section 5 of the EMP. reg 9(1)(c)
- i. The anticipated environmental impact and risks are appropriately identified in section 6 of the EMP.
- j. I accept the impact and risk assessment set out in section 6 of the EMP.
- k. Revegetation planting could be implemented to mitigate potential loss of vegetation cover, however such measures are not considered reasonably practicable because allowing vegetation re-growth from the rootstock left in place will also result in revegetation but at a lesser cost.
- l. There are no environmental impacts or environmental risks relating to the proposed regulated activity which I consider to be unacceptable.
- m. Overall, having regard to the above, I am satisfied that the EMP demonstrates that the regulated activity is to be carried out in a manner by which the environmental impacts and risks are reduced to a level that is:
  - i. as low as reasonably practicable; and
  - ii. acceptable.