
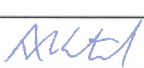
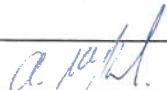


Petrel Sub-Basin South-West 3D Marine Seismic Survey  
Titleholder Report on Public Comment

|                                 |                                    |
|---------------------------------|------------------------------------|
| <b>PROJECT / FACILITY</b>       | Petrel Sub-Basin South-West 3D MSS |
| <b>REVIEW INTERVAL (MONTHS)</b> | No Review Required                 |
| <b>SAFETY CRITICAL DOCUMENT</b> | YES                                |

| Rev | Owner   | Reviewer/s<br><i>Managerial / Technical / Site</i>   | Approver  |
|-----|---|--|---|
|     |   | Senior Surveyor –<br>Geophysical Services  | HSE Team Lead – Drilling<br>and Exploration   |
| 0   | Andrew White<br> | Adam Kestel<br> | Andrew McPhail<br> |

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| <b>Rev</b> | <b>Rev Date</b> | <b>Author / Editor</b> | <b>Amendment</b>        |
|------------|-----------------|------------------------|-------------------------|
| A          | 24/08/21        | ERM                    | Draft for Santos Review |
| 0          | 25/08/21        | ERM                    | Issued for NOPSEMA      |
|            |                 |                        |                         |
|            |                 |                        |                         |

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## 1 Details

### 1.1 Environment Plan

This titleholder report on public comment applies to the Petrel Sub-Basin South-West 3D Marine Seismic Survey (MSS) Environment Plan (EP).

### 1.2 Public Comment Period

The public comment period for the Petrel Sub-Basin South-West 3D MSS EP was for the period 17 July 2021 to 16 August 2021.

### 1.3 Titleholder Contact Details

Details for Santos' Nominated Liaison Person for the Activity are as follows:

Name: Andrew White (Senior Surveyor – Geophysical Services)  
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Additional information about Santos and its operations can be obtained from the website at: [www.santos.com](http://www.santos.com).

## 2 Titleholder Response

No comments were received by NOPSEMA from the public during the public comment period for the Petrel Sub-Basin South-West 3D MSS EP.

This section summarises changes that have been made to the EP post-submission to reflect new information and ongoing consultation. No changes to the activity description or impact and risk assessment outcomes have been made from the version provided for public comment.

### 2.1 New Information

#### 2.1.1 FishCube Data

Section 3.8.1: Commercial Fishers has been updated to include the catch and effort FishCube data for 2020 (period 2010 to 2020). Information was previously based on catch and effort data from 2009 to 2019.

Key updates have been made to the catch effort and spatial overlap with the Operational Area, for the following Western Australian (WA) State-managed commercial fisheries:

- + Northern Demersal Scalefish Managed Fishery; and
- + Mackerel Managed Fishery.

Both fisheries reported an increase in catch effort in the 2019/2020 period compared to the effort reported in 2018.

The level of spatial overlap with the Operational Area and the Mackerel Managed Fishery has been revised down from 0.95% to 0.81%.

The impact assessment section has been revised to reflect the new data, however, outcomes of the assessment have not changed.

#### 2.1.2 Scientific Information

The EP has been updated to include newly released literature. Updates include:

- + Section 3.7.4 (marine reptiles) Table 3-14 has been updated to include information on the foraging habitat and preferences of hawksbill turtles from a newly released paper by Fossette et al. (2021).
- + Section 6.3.2.5 (assessment of potential impacts to plankton from noise emissions) has been updated to include information from a newly released paper by Day et al. (2021) which examined the potential impacts of seismic surveys on the larval stages of southern rock lobster (*Jasus edwardsii*), the aim of which was to determine whether early development and recruitment may be affected. The findings of this research have not altered the outcomes of the impact assessment.
- + Section 6.3.2.6 (assessment of potential impacts to invertebrates from noise emissions) has been updated in light of the recent Day et al. (2021) research to apply a more conservative 1 km distance for eggs and larvae in the water column in the assessment of the spatio-temporal overlap with the core area and peak spawning period for red-legged banana prawns. The findings of this research have not altered the outcomes of the impact assessment.
- + Section 6.3.2.7 (assessment of potential impacts to fish, sharks and rays from noise emissions) has been updated to include information from a newly released paper by Meekan et al. (2021) which quantified the impacts of exposure on an assemblage of tropical demersal fishes (including snappers, emperors, rock cods/groupers), targeted by commercial fisheries, to a commercial-scale seismic source on the North West Shelf of WA. The findings of this research have not altered the outcomes of the impact assessment.

- + Section 6.3.2.11 (assessment of potential impacts to commercial fisheries from noise emissions) has been updated to include information from the Meekan et al. (2021) paper, as above. The findings of this research have not altered the outcomes of the impact assessment.
- + Appendix G (noise technical appendix) has been updated to include recent literature from 2019 onwards for invertebrates and fishes.

## 2.2 Stakeholder Consultation

Section 4: Stakeholder Consultation, has been updated based on ongoing consultation with relevant stakeholders.

Key changes include:

- + General updates to timelines and changes to the date for when stakeholders were advised the Petrel Sub-Basin SW 3D MSS EP was available on the NOPSEMA Website for Public Comment.
- + Details of further correspondence with the Director of National Parks (DNP). On 26 July 2021, the DNP requested further information in response to a consultation email provide by Santos on 9 July 2021. Santos has since responded to the DNP, a summary of which is provided in Table 4-2 of the EP, in REQUEST 007 through to REQUEST 015.
- + Addition of acknowledgement email responses within the entries for AHO, AMSA and WAFIC in Table 4-2.

The outcomes of the impact and risk assessment sections have not changed based on this correspondence.

## 3 References

Day, R.D., Fitzgibbon, Q.P., McCauley, R.D. and Semmens, J.M., 2021. Examining the potential impacts of seismic surveys on octopus and larval stages of southern rock lobster, Part A: southern rock lobster. FRDC project 2019-051. The Institute for Marine and Antarctic Studies, University of Tasmania, Hobart, Tasmania.

Fossette, S., Ferriera, L.C., Whiting, S.D., King, J., Pendoley, K., Shimada, T., Speirs, M., Tucker, A.D., Wilson, P., Thums, M., 2021. Movements and distribution of hawksbill turtles in the Eastern Indian Ocean. *Global Ecology and Conservation* 29: e01713.

Meekan, M.G., Speed, C.W., McCauley, R.D., Fisher, R., Birt, M.J., Currey-Randall, L.M., Semmens, J.M., Newman, S.J., Cure, K., Stowar, M., Vaughan, B. and Parsons, M.J.G., 2021. A large-scale experiment finds no evidence that a seismic survey impacts a demersal fish fauna. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, July 27, 2021 118 (30) e2100869118; <https://doi.org/10.1073/pnas.2100869118>.