

# Timor Resources - Internal/ External Noise and Vibration Management Plan

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<b>Author / contact person</b>	Nomesia Reis & Jan Hulse
<b>Further contact person/s</b>	Ian Borthwick





Authorization		
	Name / Function	Signature / Date
Prepared by	Nomesia Reis and Jan Hulse	_____ —
Reviewed by	Ian Borthwick	_____ —
Approved by	Florentino Soares Ferreira	_____ —

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# 1 INTRODUCTION

## 1.1 Context

Timor Resources (TR) is a privately owned Australian oil and gas company that is in joint venture with Timor Gap (TG), a national oil company of the Timor-Leste (TL) Government. On 7 April 2017, TR signed an agreement with the TL Government (Onshore PSC TL OT-17-08) allowing the company with its partners, to commence the process of exploration, development and exploitation of petroleum resources in the contract area. TR will run a regional seismic survey in the southern area of the country, identified as Block A and Block C, that will build upon seismic data collected in 1969 and 1994

## 1.2 Objective

This project was determined to require a Category A Licence under Decree Law No. 5-2011. TR were required to submit an Environmental Impact Statement (EIS) and Environmental Management Plan (EMP). A risk assessment determined the potential impacts from the project and various management plans have been developed to supplement the EIS and EMP. Noise and vibration emissions are recognised as a potential negative impact from drilling works. This report will detail the potential negative impacts from proposed works, and present management and monitoring strategies to limit these impacts, as well as assigning responsibilities to ensure strategies contained within this report are implemented.

## 1.3 Scope

Noise levels during construction and decommissioning phase may have a short-term effect, but low level and transient. In contrast, the noise levels during the drilling phase may pose problem of disturbance is cause to wildlife or human inhabitants close to the facility. A key priority will be the implementation of noise control measures at each source point; the selected methods will depend on the source type and the proximity of sensitive receptors, and can include (but is not limited to): equipment selection, acoustic enclosures, vibration isolation, traffic route selection, etc. This plan aims to address noise and vibration emission impacts for Block A and Block C drilling project.



## **1.4 Legal Requirements**

Timor-Leste does not have specific guidelines for the control and management of noise and vibration; therefore, this plan will refer to international guidelines, and in this case, the relevant IFC (International Finance Corporation) Environmental, Health and Safety Guidelines on Noise.

The noise limits established by IFC for residential areas are the following:

1. 55dBA during daytime (daytime hours 07:00 to 22:00)
2. 45 dBA during night-time) night-time hours 22:00 to 07:00)

In the absence of specific noise-related legislation in Timor-Leste, other noise limits used locally include the limits used on the Tasi Mane Project Suai Supply Base. These limits are based on the Western Australian Environmental Protection (Noise) Regulations 2007, Regulation 7 of the regulations states that ‘noise emitted from any premises when received at other premises must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind.

The recommended noise limits for the project were based on the existing noise levels in the area and, for noise sensitive premises such as a dwelling, ranging from 55 to 62 db (A) during daylight hours to 45 to 52 db (A) during the night period (from 2200 hrs). Commercial premises (75db (A)) and industrial premises (80dB(A)) always have higher limits due to their lower sensitivity. The limit for this project is set at 80dB(A) for daytime work in non-residential areas.

The WHO guidelines for night noise recommended less than 40 dB(A) of annual average outside of bedrooms to prevent adverse health effects from night noise.



## 2 POTENTIAL NOISE IMPACTS

Noise can become an environmental nuisance when it negatively affects environmental values, including human health and wellbeing. A negative impact can include disturbance to sleep or recreational activities, impacts on the health and biodiversity of ecosystems, and reduced community amenity. Other factors which may increase the impact felt from noise include a developments proximity to noise sensitive receptors, existing land use has a low background noise, and intrusive noise (e.g. tonal or impulsive noises).

Whether a noise has an impact, or the degree to which that impact is felt, is influenced by many factors. For example, the audibility and frequency of the noise, whether the noise emission is steady or fluctuating, whether it includes vibration, the character of the receiving environment and pre-existing background noise levels.

Factors leading to potential noise and vibration emissions associated with this project are:

- The use of heavy vehicles during camp construction and vegetation clearing (e.g. backhoe, excavators, etc.)
- Accommodation camp/s (e.g. vehicle use to and from the camp at peak times, personnel activity, use of generators, construction and decommissioning).
- Increase in light vehicle movements to and from site/camp, particularly at the start and end of daily shift

Excessive noise and vibration emissions can lead to the following impacts:

- Disturbance to sensitive receptors (e.g. residential areas, breeding/nesting fauna).
- Degradation of public utilities.
- Structural damage to infrastructure (above and below ground).

Some of the project area is sparsely populated with limited infrastructure in place, resulting in less impact from noise and vibration. In areas where residential receptors are more frequent and/or identified fauna exist, the localised and temporal nature of this project will ensure noise and vibration emissions impacts are limited.





### 3 MANAGEMENT OF IMPACT

The noise impacts will be managed through the following management strategies:

- Carry out noise monitoring as per Appendix G - Noise Management Plan
- Periodical vehicles and equipment maintenance services
- Develop and implement project Grievances Redress Mechanisms (GRM) see Appendix C - Redress and Grievance Procedures
- Provide proper PPE for all personnel onsite
- Clear safety signs and marks
- Establish Safety Zone





## **4 RESPONSIBILITIES**

### **4.1 TIMOR RESOURCES**

Timor Resources is to guarantee the availability of the economic, human and technical resources needed to manage the mitigation measures as described in this document. It is Timor Resources' responsibility to:

- Ensure that the requirements of this Noise and Vibration Management Plan are satisfied
- Ensure that all contractors and sub-contractors are aware of their responsibilities to undertake their activities in accordance with this Plan

### **4.2 Contractors**

- Understand their responsibilities as per this Plan, and ensure they have the capacity to carry out those responsibilities and that all personnel under their care are made aware of responsibilities and requirements.
- Recommend changes to this Plan if appropriate and in discussion with TR personnel.
- Ensure appropriate records are kept and maintained on-site
- Verifying any specific training/awareness sessions to employees involved in operations that may impact on the noise environment



## **5 MONITORING**

Noise levels will be routinely monitored and the following recorded:

1. Date and time
2. Location
3. Equipment to be teste
4. Proximity to the rig site, buildings, officer and nearby community
5. Etc

