

Executive Summary

The Proponent

The proponent for the exploration permit VIC/P49 is Nexus Energy Limited (Nexus).

Nexus is an international oil and gas company with its headquarters in Melbourne, and was publicly listed on the Australian Stock Exchange and began trading in August 2001. The core business of the company is oil and gas exploration and production. Nexus also has exploration and production interests in the Northern Territory and Western Australia.

The Proposal

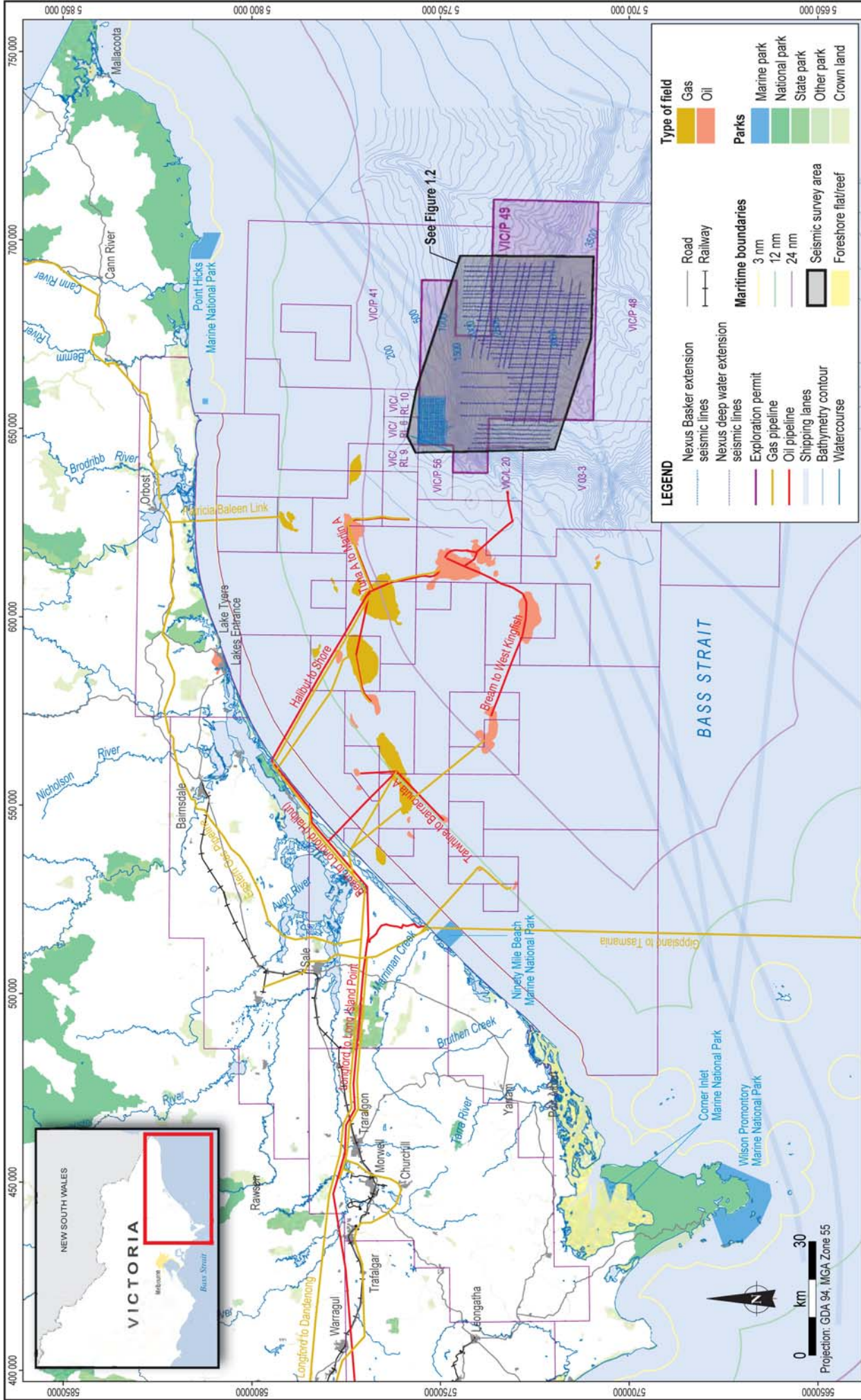
Nexus Energy Limited (Nexus) proposes to acquire approximately 250 km² of two-dimensional (2D) marine seismic survey data, within Commonwealth Petroleum Permit Area VIC/P49 in Bass Strait (Figure 1.1). The duration of the survey will be approximately two weeks. The most likely start date for the survey is May 2007. The precise commencement and completion dates are dependent upon vessel availability and weather conditions.

The survey will be undertaken in Commonwealth waters in water depths ranging from approximately 250-3000 m, with the closest point of the survey area being approximately 58.6 km offshore (from nearest landfall to the western-most northerly corner of VIC/P49), southeast of Bairnsdale in Victoria.

The vessel will in this case tow a single hydrophone cable streamer up to 6,000 m long, traversing the VIC/P49 exploration area at speeds of about 4.75 knots (equivalent to 8.5 km/h) when performing seismic recording, along the pre-programmed 2D survey lines. The hydrophone cable streamer will travel about 6 m below the sea surface, controlled by mechanical devices called 'birds' to maintain the travel depth, and prevent the equipment from making contact with the seabed. At the depths of the survey area, there is no risk of grounding during normal operations.

A support vessel will provide port calls and supply deliveries to the seismic vessel if required, with a smaller scout vessel(s) used for scouting potential hazards, streamer cable maintenance and minor logistics. Due to the short duration of the seismic program (approximately 14 days), helicopter crew changes are not planned.

Where the survey vessel is required to turn outside the VIC/P49 permit area, access authority will be obtained from all other relevant permit holders.



Job No: 1253
 File No: 1253_02_F1.01_HB

Nexus Energy Limited
 VICIP49 Seismic Survey

Proposed project area

Figure No: **1.1**

Stakeholder Consultation

In the course of planning the proposed seismic program, Nexus has to date undertaken consultation with the following stakeholders in the region to identify potential issues and management requirements:

- Commonwealth Department of Environment and Heritage (DEH):
 - Referrals Section.
- Seafood Industries Victoria (SIV).
- South East Trawl Fishery Industry Association (SETFIA).
- Victorian Department of Primary Industries (DPI):
 - Regional Office (Bairnsdale).
 - Fisheries Division (Melbourne).
 - Minerals and Petroleum Division (Melbourne).

Consultation with commercial fishing groups will follow APPEA and DEH Guidelines where applicable. Subject to the advice of this group of stakeholders, and particularly if there are areas of potential overlap between the area of the seismic survey and commercial fishing grounds, practical methods to minimise times of potential interference, such as setting up a liaison program, and conducting the survey in discrete areas (or paddocks) will be discussed directly with the fishers if these are appropriate.

On the advice of Gail Ritchey, Executive Officer of SETFIA, Nexus is currently in consultation with Fritz Drenkhahn (President, SETFIA), Peter Clarke (Chairman, Lakes Entrance Fishing Cooperative) and Dale Summers (Lakes Entrance Fishing Cooperative), and Chris Newman, trawler operator and liaison adviser, from which it is anticipated that management strategies (as described above) will be developed when the timing of the survey is finalised.

Environmental Impact Assessment

Referral and assessment of the VIC/P49 seismic survey under the EPBC Act by the DEH determined on 15 August 2006 that the project was not a 'controlled action'.

The components of seismic surveys and survey-related activities that could result in environmental and social impacts include:

- High intensity sound discharges.
- Physical presence of seismic vessel.
- Waste discharge.
- Hydrocarbon and/or chemical spills.
- Ballast water discharge.
- Exhaust emissions.

The environmental and social issues related to these activities include:

- Disturbance to marine fauna causing:
 - Changes to behavioural ecology of species (feeding, breeding, migration patterns).
 - Physical damage (i.e., lethal effects, pathological damage, injury).
 - Low level contamination/toxicity of marine fauna.
- Disturbance to benthic habitats:
 - Damage and/or destruction of seafloor habitats and palaeo-environments from anchoring, grounding and accidental loss of streamers and associated equipment.
 - Low level contamination/toxicity of benthic habitats.
 - Changes in water quality.
- Interference with shipping, boating and fishing in the area.
- Interference with oil and gas production infrastructure (existing or under construction).
- Introduction of exotic marine species.
- Emissions to air as a result of exhaust emissions from vessels.

The Environment Plan provides a detailed assessment of potential impacts. The salient points of the assessment are summarised below.

Marine Fauna

- Impacts to marine fauna (including fish, shellfish and larvae) from the air source discharge are unlikely outside of the immediate vicinity of the source (i.e., 1-5m). Most species display some avoidance behaviour by moving laterally or into deeper water.
- The survey area is located outside known feeding, breeding and aggregation areas for blue, southern right and humpback whales, however it may be conducted during migratory periods for the southern (May to September) and humpback whales (June to November).
- Department of Environment and Heritage guidelines for managing interactions between offshore seismic operations and larger cetaceans will be applied.
- Potential for fuel or oil spills is negligible.
- The survey is scheduled for a 10-14 day period, representing a temporary and low risk.
- Inspection of hull anti-fouling records and inspection of streamers will occur.

Navigation Safety

- The period of any displacement of local traffic will be limited to the short duration of the survey.
- A support vessel will conduct reconnaissance scouts ahead of the survey vessel.
- The hydrophone cables will be tracked via GPS to monitor their location (assisting retrieval if one or more become severed).
- All vessel operations will be conducted in compliance with the Australian Maritime Safety Authority (AMSA) Offshore Support Vessel Code of Safe Working Practice (OSV Code), which includes regular Notices to Mariners and standards for radar monitoring and vessel communications.
- Watch will be maintained on the survey vessel for other craft.

Waste Discharge

- Sewage and putrescible wastes will be macerated in accordance with regulatory requirements (less than 25 mm, according to P(SL)Act and MARPOL Annex IV) prior to being discharged to sea. No sewage discharge will be undertaken within 3 nm of land (under the P(SL)Act).
- Solid inert combustible wastes will be incinerated on-board. Non-combustible solids will be returned to shore for disposal.
- Any spills will be recorded in a wastes and emissions log, reported to Nexus and regulatory authorities advised in accordance with regulatory requirements.
- Survey vessel will not take on or discharge ballast water.

Commercial Fisheries

- Survey area is not located in important commercial fishing grounds.
- Some deep-water species may be fished by trawling in the survey area.
- Regular communication with fishing groups and provision of coordinates of survey area to fishermen will minimise potential impacts to commercial fishing activity.

Recreation and Tourism

- The seismic vessel will not significantly impact on visual amenity (i.e. sightseeing) as the survey will be conducted approximately 57 km from shore.
- The survey area is not used by recreational fishermen.

In summary, the seismic exploration program proposed by Nexus will not result in detrimental impacts to populations of marine fauna or commercial fisheries in the vicinity of the survey area. Detailed management and mitigation measures that will be followed during the seismic survey are provided in the EP.