

**AUSTRALIAN DRILLING
ASSOCIATES**

**GEOTECHNICAL CORING
SURVEY**

ENVIRONMENT PLAN

EXECUTIVE SUMMARY

Prepared by
Enesar Pty Ltd



Australian Drilling Associates Pty Ltd
Offshore Consortium Drilling Program

Geotechnical Environment Plan

Executive Summary



October 2007
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Executive Summary

The Proponent

Australian Drilling Associates Pty Ltd (ADA) is acting as the proponent for a consortium of oil and gas companies. The consortium participants include: Apache, Beach Petroleum, Nexus, 3DOil and Stuart Petroleum. ADA is a recognized international well engineering and project management company, with its head office in Melbourne.

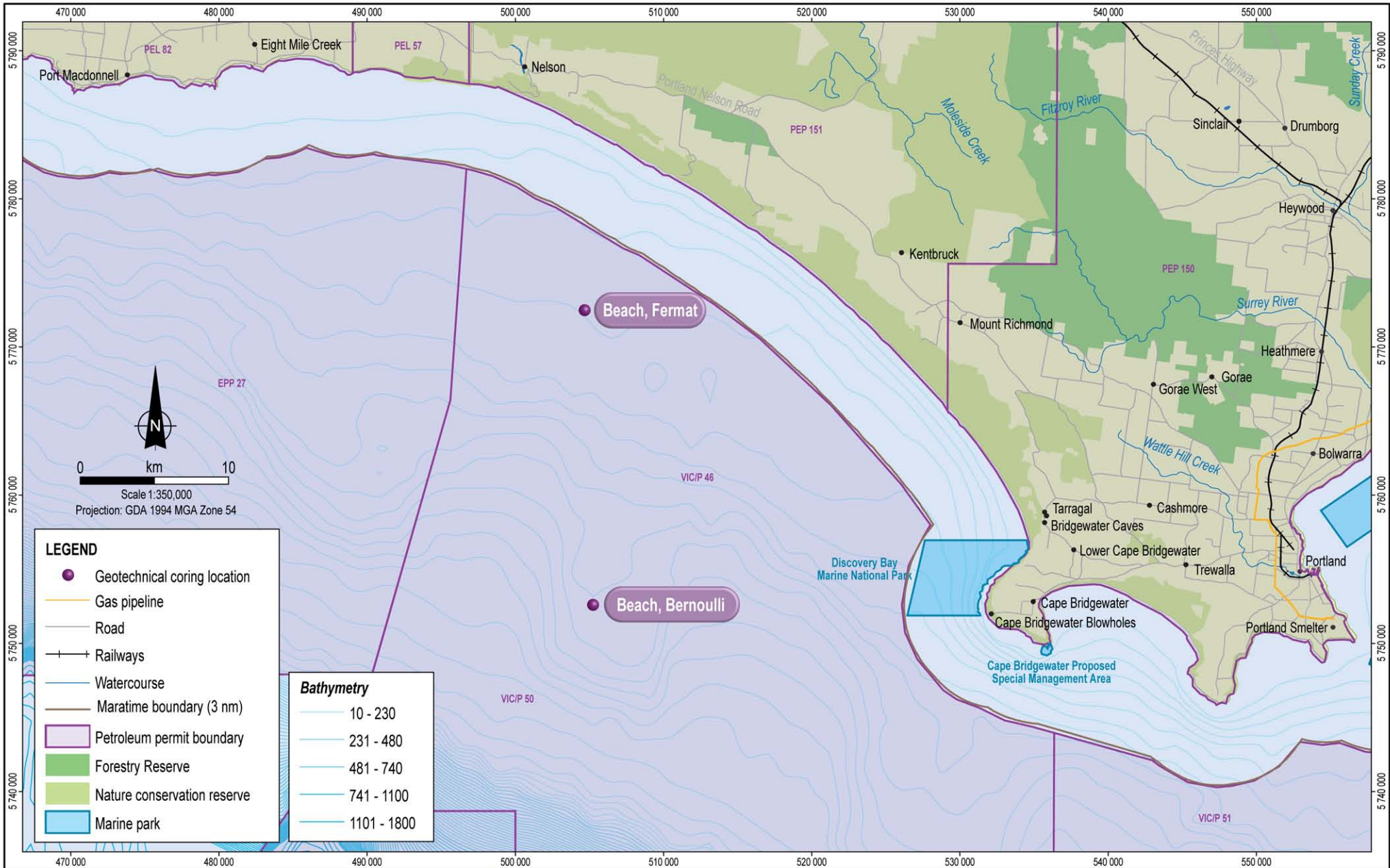
The Proposal

The proponent proposes to undertake an offshore geotechnical coring program in the following three locations:

- Otway Basin of western Bass Strait at two sites in Commonwealth waters, offshore Victoria (Figure ES1).
- Gippsland Basin of eastern Bass Strait at 11 sites in Commonwealth waters offshore Victoria (Figure ES2).
- Bass Basin of southern Bass Strait at two sites in Commonwealth waters offshore Tasmania (Figure ES3).

The geotechnical coring and sampling operations will be performed in preparation for a drilling program planned for early 2008. This Environment Plan covers the geotechnical coring activity. The coring program is expected to be approximately one month duration, commencing mid November 07.

The Fugro multi-purpose vessel 'MV Markab' will be contracted to undertake the coring operations and this vessel will complete coring at depths of up to 30 m max at each of the 15 well locations. The number of cores required at each well location may vary depending on soil conditions and expected stability but a nominal number of cores is expected to be between one and three at each location.



LEGEND

- Geotechnical coring location
- Gas pipeline
- Road
- +— Railways
- Watercourse
- Maritime boundary (3 nm)
- Petroleum permit boundary
- Forestry Reserve
- Nature conservation reserve
- Marine park

Bathymetry

- 10 - 230
- 231 - 480
- 481 - 740
- 741 - 1100
- 1101 - 1800

0 km 10

Scale 1:350,000

Projection: GDA 1994 MGA Zone 54

Source:
 Bathymetry from GeoScience Australia
 Petroleum tenements and pipelines from DPI
 Place names, roads, rail, drainage, reserves and parks from GEODATA TOPO 250K (optimum scale 1:250,000)

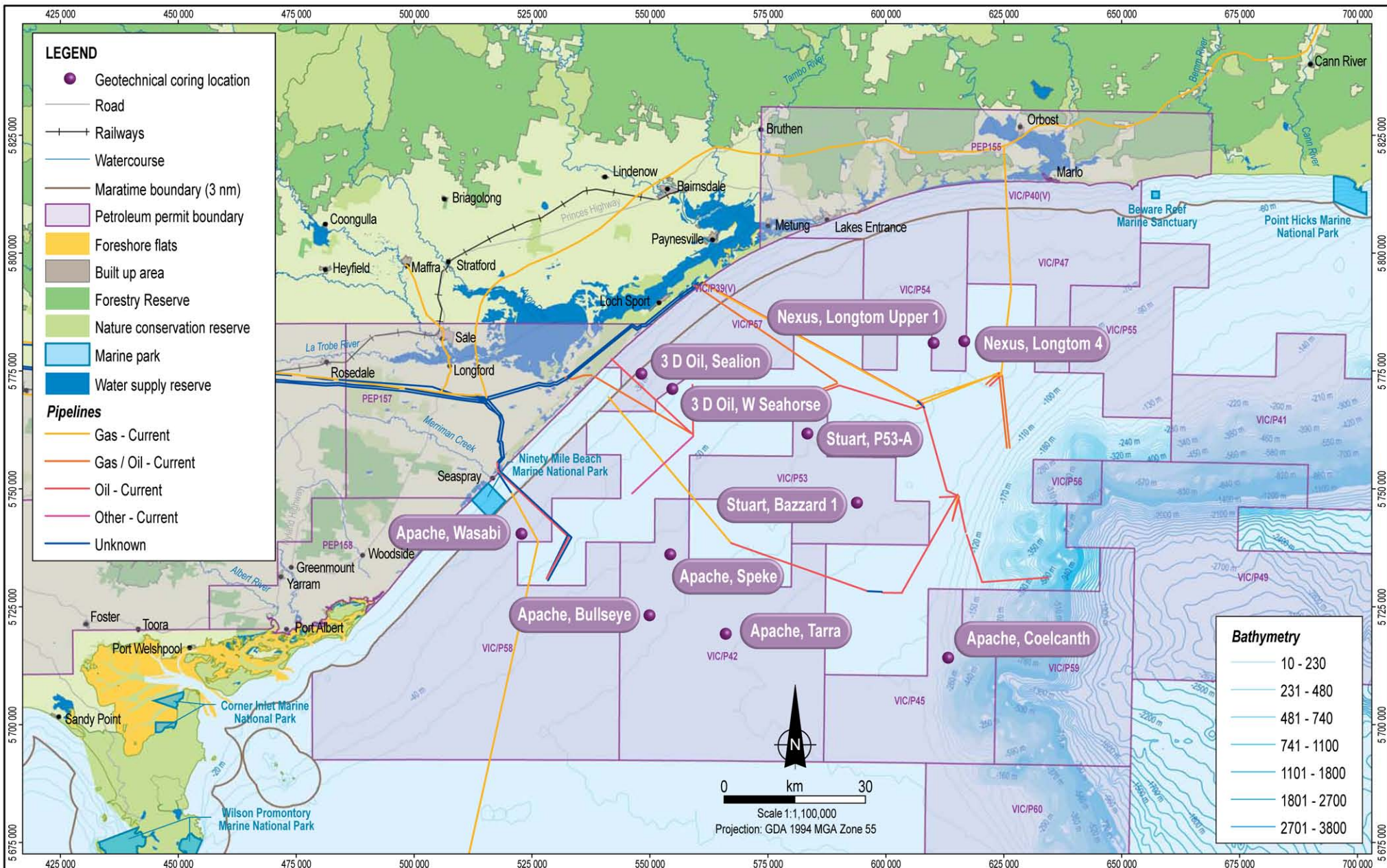
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Australian Drilling Associates

Geotechnical Environmental Plan

Otway Basin Geotechnical Survey

Figure No:
ES1



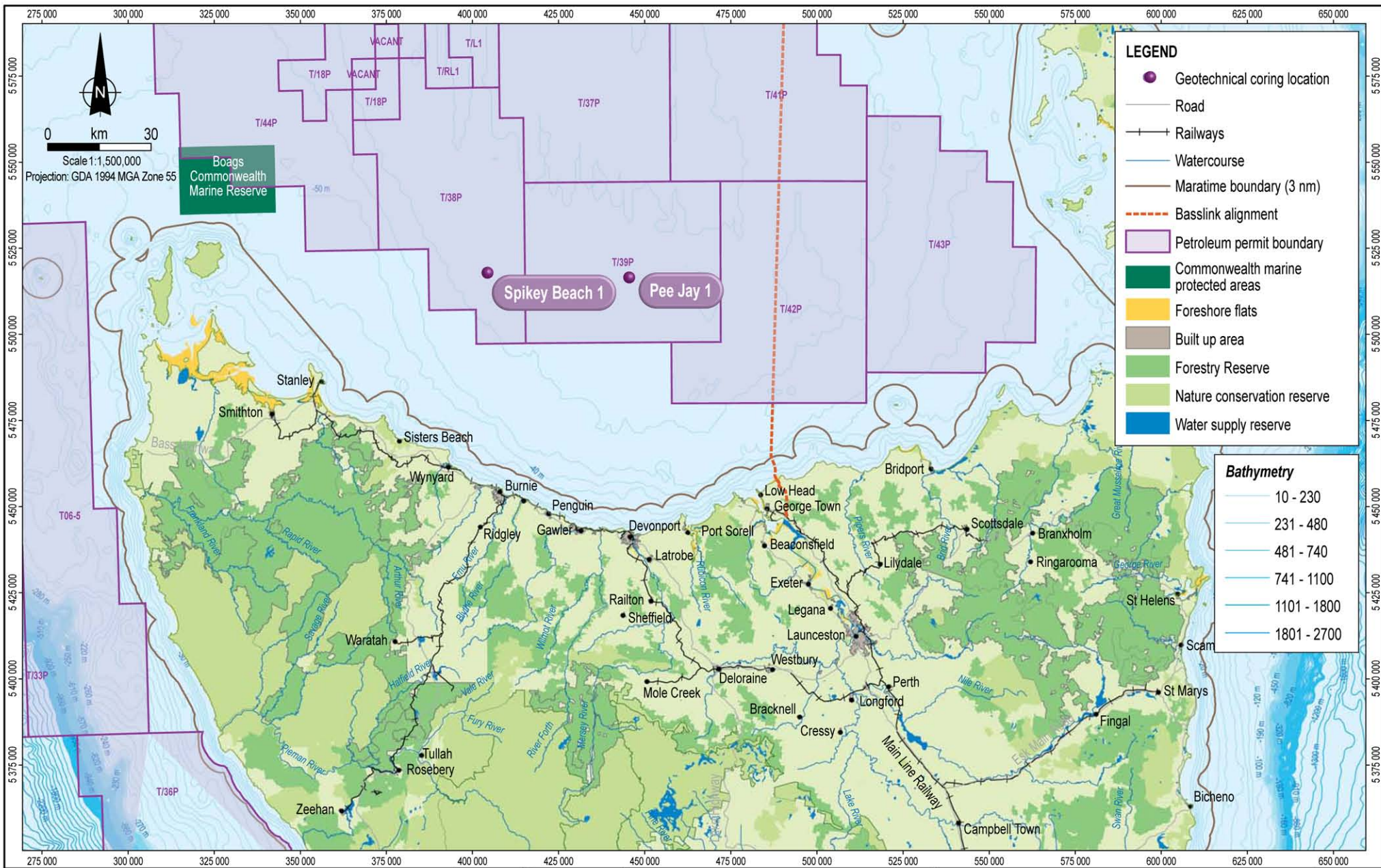
Source:
Bathymetry and Maritime boundaries from Geoscience Australia
Petroleum tenements and pipelines from DPI
Place names, roads, rail drainage, reserves and marine parks from GEODATA TOPO 250K (optimum scale 1:250,000)


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Geotechnical Environmental Plan

Gippsland Basin Geotechnical Survey
ES2

Figure No: ES2



Source:
Bathymetry and Maritime boundaries from Geoscience Australia
Petroleum tenements and pipelines from DPI
Place names, roads, rail drainage, reserves and marine parks from GEODATA TOPO 250K (optimum scale 1:250,000)
Basslink pipeline supplied by Barton Napier from information provided by Siemens and National Grid Australia.

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Geotechnical Environmental Plan

Bass Basin Geotechnical Survey

Figure No:
ES3

Stakeholder Consultation

Stakeholders associated with the survey that have been consulted are listed in Table ES1.

Table ES1 Stakeholder consultation

Stakeholder	Contact	Date	Matters Discussed
DPI	Terry McKinley Cynthia Crowe	1/6/07 meeting then ongoing.	EP requirements for geotech and drilling.
DIER	Chris Boron	6/9/07	EP requirements for geotech and drilling
Border Protection Command	bpliaison@customs. gov.au	To be advised 2 weeks prior.	Security advice.
AFMA	Bronwen Jones	20/8/07	Advice on locations of coring and fisher groups contact.
AMSA		To be advised 2 weeks prior.	Contact with Rescue Co- ordination Centre (RCC).
Commonwealth Fisheries Assn	Peter Franklin	17/8/07	Advice on locations of coring and fisher groups contact.
Warrnambool DSE	Mandy Watson	7/8/07	Whale presence in Otway; coring process.
Seafood Industries Vic	Ross McGowan	17/8/07	Advice on geotech. program and locations of coring.
Victorian Scallop Industry Association	Steve Melissakis	16/8/07	Advice on geotech program and locations of coring.
Portland DPI Regional Fisheries	Charlie Cooper	15/8/07	Advice on locations of coring and fisher groups contact.
Portland Professl Fishermen's Asscn	Steve Nathan	16/8/07	Advice on geotech program and locations of coring.
SE Trawl Fishing Industry Association	Gail Richie	16/8/07	Advice on geotech program and locations of coring.
SE Non-Trawl Fishing Indy. Assn	Charlie Farqhar	20/8/07	Advice on geotech program and locations of coring.
Lakes Entrance Fishermens Coop	Peter Clark/Dale Summer	16/8/07	Advice on geotech program and locations of coring.
VRFish	Christopher Collins	16/8/07	Advice on geotech program and locations of coring.
Tasmanian Fishing Industry Council	Neil Stump	12/9/07	Advice on geotech program and locations of coring.
Tasmanian Assn of Recreational Fishing	Anne Purtil	12/09/07	Advice on geotechnical program and locations of coring.
Deakin University (Warrnambool) blue whale research group	Peter Gill	21/8/07	Advice on locations of coring and fisher groups contact.

Environmental Impact Assessment, Management and Mitigation

The potential for environmental effects from the geotechnical survey include:

- Operation of the vessel and deployment of the coring system.
- Interference with shipping and commercial fishing.
- Seabed disturbance as a result of anchoring or grounding.
- Accidental impact from loss of corers and associated equipment.
- Routine waste discharges from the survey vessel.
- Accidental fuel spills from the survey vessel.
- Collision with another vessel.

The Environment Plan provides a detailed assessment of potential impacts. The key points of the assessment, and management and mitigation measures, are summarised in Table ES2 below. The summary risk ranking is shown in Table ES2, there are a total of 12 environmental risk assessments and these have been assessed as low risk.

Table ES2 Summary of environmental impact assessment results

Impact Assessment	Management and Mitigation	Risk Ranking
Vessel presence: Impacts to commercial fisheries Reduction in fish catches or interference with fishing activities likely to be localised and short term.	Liaison and communication with commercial fishing operators regarding schedules and work plans during survey.	Low
Vessel presence: Transfer of abalone virus from Victoria to adjacent coastal waters Markab route to Tasmanian sites will avoid known infected areas by travelling in deeper waters.	Markab will exchange ballast water as per vessel procedures, so that Victorian ballast water will not be released in Tasmanian waters.	Low
Vessel presence: Impacts to commercial vessels and water based leisure craft Temporary displacement of aquatic recreation activities; minor potential collision hazard.	Offshore distance/depth/timing/duration will reduce the extent of inconvenience; all vessel operations will be conducted in compliance with the AMSA OSV Code.	Low
Vessel presence: Collision, noise impact on large cetaceans There are no sound sources involved in coring apart from generators on board the vessel; procedures to stop steaming when whales sighted within 1 km.	Whale sightings will be logged.	Low
Vessel presence: Impact to visual amenity Minor visual impact of vessel in nearshore areas.	Vessel not closer than 6 km to the coast.	Low
Coring operation: Lost equipment Disruption to commercial fishing operations, minor potential effect on seine and trawl fishing gear.	Geotech coring activity is short duration (approximately 4 weeks): communications with fishing groups.	Low
Discharge of sewage and putrescible wastes: Waste discharge to sea Minimal controlled discharges, remote locations result in low impact.	Sewage and putrescible wastes macerated pre discharge as per regulations.	Low
Discharge of solid and hazardous materials and waste: Waste discharge to sea Minimal, controlled discharges.	Solid and hazardous waste will be returned to shore for disposal;	Low
Ballast water discharge Introduction of marine pests Markab will exchange ballast water as per vessel procedures.	Vessel masters will be made aware of the AQIS 'Maritime Awareness Kit'.	Low
Accidental spill: Fuel spill Minimal risk of pollution of marine environment.	Geotechnical vessel has an Oil Spill Contingency Plan (OSCP) in place and staff are appropriately trained in its execution.	Low
Deployment of coring system: Seabed disturbance Minimal risk of loss of seabed habitat.	Short term operation (less than 24hr per core).	Low
Deployment of anchor: Seabed disturbance from anchor dragging Localised and short term physical disturbance to benthic habitats and epibenthic organisms.	Short term operation (less than 24hr per core).	Low

In summary, the offshore geotechnical survey is located in Bass Strait Commonwealth waters and is a relatively minor activity in preparation for a drilling program in 2008. The short duration of the survey (four weeks) away from marine protected areas has low impact to the marine environment.

Stakeholders have been consulted especially fishing groups and mitigation measures have been put in place to manage whale interaction.

Management and mitigation measures that will be followed during the project are provided in the Environment Plan. The implementation strategy for the Environment Plan specifically details the measures needed to ensure that the environmental performance objectives and standards are met, and identifies:

- Systems, practices and procedures.
- Specific roles and responsibilities.
- Employee training.
- Monitoring, auditing and recording requirements.
- Emergency response planning.
- Consultation with government and stakeholders.