



*BASKER MANTA PROJECT  
FULL FIELD DEVELOPMENT*



**SUMMARY ENVIRONMENT PLAN**

December 2006

**Prepared for:**

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## **Background**

Anzon Australia Limited (Anzon) and Beach Petroleum Limited are the joint titleholders of Production Licence VIC/L26 and Retention leases VIC/RL9 and VIC/RL10, which contain the Basker, Manta and Gummy (BMG) oil and gas fields in the Commonwealth waters of Bass Strait. Anzon is the operator of the Basker-Manta Project. Upstream Petroleum Pty Ltd (UP) has been contracted by the BMG Joint Venture to act as Operator for the Basker-Manta field.

UP is an Australian integrated oil and gas service provider. UP provides expertise in operations and maintenance of production facilities and other services under contract to the oil exploration and production industry across a broad range of upstream professional disciplines from well completions to facility management.

## **Project Overview**

The Basker Manta Gummy fields have been producing from the Basker-2 well, which was drilled in Q3 2005, as part of the Extended Production Test (EPT) Development Phase of the project. The Basker-2 well produced well stream fluids *from 4Q 2005 to 2Q 2006* to the *Crystal Ocean*, a Floating Production Storage Offloading vessel (FPSO). Oil has been exported via a submarine pipeline to the shuttle tanker *Basker Spirit*.

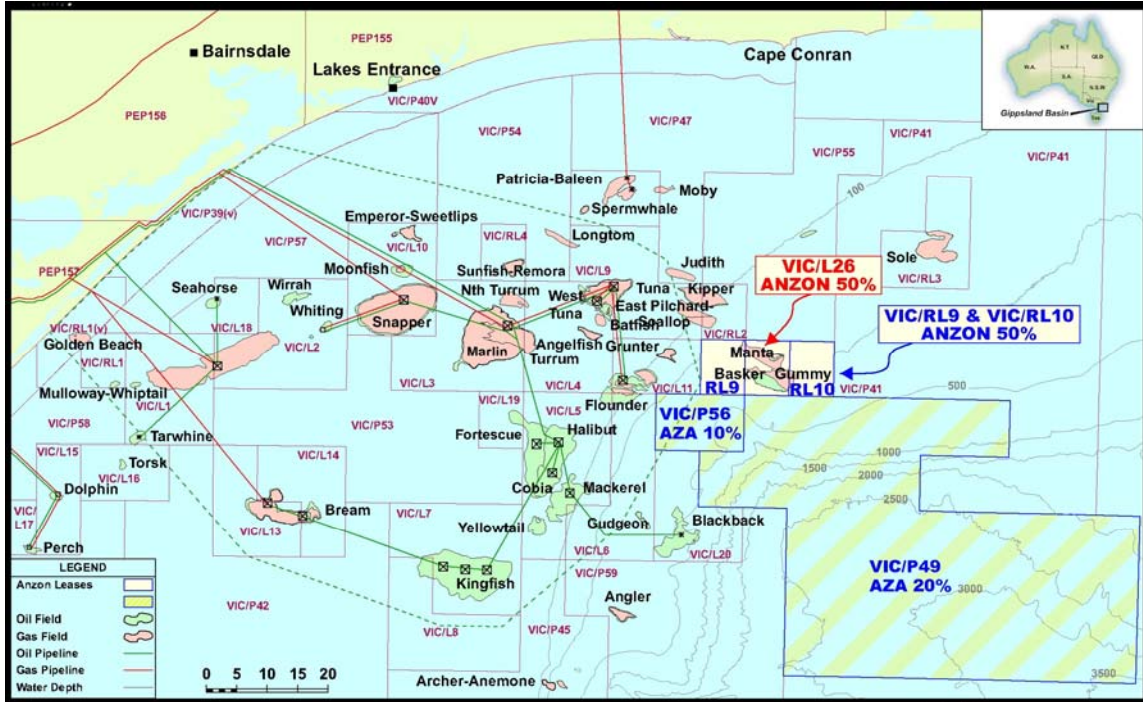
As part of the Full Field Development (FFD), Basker 3,4 and 5 and Manta 2A have been drilled and a subsea manifold installed. Flow from the three Basker production wells co-mingles at the subsea production manifold and flow via a single Basker production flowline to the FPSO *Crystal Ocean*. Manta production flows to the *Crystal Ocean* directly from the Manta-2A wellhead.

The FPSO separates oil, gas and water; fully stabilises the oil, treats and discharges produced water; and transfers the stabilised oil to the shuttle tanker *Basker Spirit*, moored approximately 1.5km to the north-west. The tanker will periodically disconnect from its mooring and transport the stabilised crude to a nearby refinery or tank-farm. While the shuttle tanker is disconnected (for approximately two to three days) crude oil will continue to be produced into storage tanks on the FPSO.

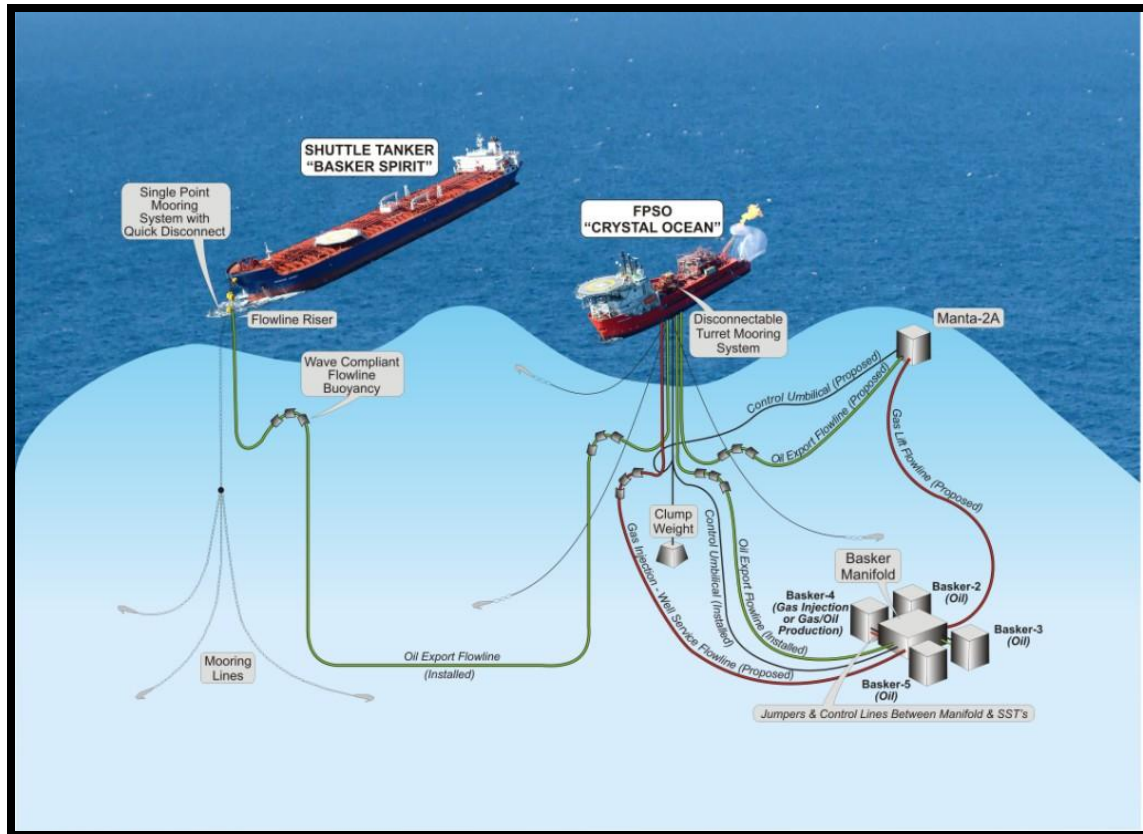
A support vessel will carry out supply operations to the FPSO and shuttle tanker every 2 – 3 weeks during the FFD operations. The supply base for the vessel will be from Wharf 27, Port of Melbourne, approximately 22 hours steaming time from the *Crystal Ocean*.

Basker Manta FFD production commenced on 17<sup>th</sup> of December 2006, with an anticipated operating life of 15 years.

**Basker-Manta Full Field Development Summary Environment Plan**



**Figure 1 Basker Manta Location**



**Figure 2 Basker Manta Field Layout**

## ***Description of the Receiving Environment***

The Basker Manta Gummy fields are located in Production Licence VIC/L26 and Retention leases VIC/RL9 and VIC/RL10 in the commonwealth waters of Bass Strait, approximately 50km from the Victorian Coast and 15km east of the Flounder oil and gas field. These facilities are located approximately 100km from the proposed East Gippsland Commonwealth Marine Reserve in the South-east Marine Region. This marine reserve has been identified in this region as an area of focus for marine protection and is characterised by a continental slope with deeply incised submarine canyons (such as Bass Canyon) on the eastern margin of Bass Strait which have important productivity and unique oceanography. The Basker and Gummy fields are geologically located below the steeply incised edge of the Bass canyon. The Manta field lies below the gently dipping Gippsland Shelf, 2.5km north of the canyon escarpment.

The infrastructure components associated with the Basker-Manta Project are located on a nearly flat sea-floor in the relatively shallow water of the continental shelf, to the north of the rapidly deepening waters of the Bass Canyon. Water depths in the vicinity of the proposed Basker-Manta sea-floor facilities range from 130.5m (428ft) in the north of the surveyed area to 231.8m (760ft) at the SSE limits of the Basker/Manta – FPSO flowline.

The closest landfall to the Basker Manta field is Cape Conran, located 53km north, on the Ninety Mile Beach (Victoria). It is an extensive continuous NE-SW oriented sandy beach and dune system. This beach and dune system provides a buffer zone to the wetlands and heathlands located around the 400km<sup>2</sup> Gippsland Lakes waterways. No mangrove forests, coral reefs or extensive wetland lagoons lie along the exposed coastline directly opposite the Basker Manta field.

Three sea-floor types have been identified at Basker Manta: calcareous fine to medium clayey sand with shells and minor marine growth; low relief rock/reef subcrop with a veneer of clayey sand; and rock/reef outcrops with high relief. Across the majority of the site, where the seabed sediments have been interpreted as calcareous clayey sand, seabed scars have been identified.

Both resident and migratory fauna, including fish, sharks, seals, sea lions and cetaceans have been observed in the vicinity of the Basker Manta site. Up to 10 migratory species, including 2 endangered species (Blue Whale and Southern Right Whale) and 3 threatened species (Great White Shark, Whale Shark and Humpback Whale) may potentially migrate or temporarily forage in the permit area during certain periods. However, the Production License VIC/L26 and Retention leases VIC/RL9 and VIC/RL10 areas are not recognized as an aggregation area for the species and there are no threatened ecological communities listed under the EPBC Act in the vicinity of the site. Commercial species of fish (shark, ling, perch, whiting) and shellfish (scallop, squid and prawns) also occur in the area.

Migratory seabirds listed under the EPBC Act are known to occupy the islands of Bass Strait, the nearby coastline, and may pass through Basker Manta field during the time of installation activities. However due to the lack of suitable roosting and breeding habitats or important habitats for these species in the permit area, they are not expected to be present for extended periods of time.

A wide range of human activities occurs in Bass Strait including fishing, commercial oil and gas fields, shipping as well as recreational pursuits, heritage, research and tourism.

## ***Potentially Significant Environmental Impacts***

A risk analysis has been undertaken for all aspects of the Basker Manta FFD activities in accordance with procedures consistent with the requirements of AS/NZ4360:2004 (Risk Management) and HB203: 2004 Environmental Risk Management (Principles and Processes). The analysis indicates that, with the proposed management/mitigation measures implemented, no aspects or impacts assessed as having a high residual risk are expected (see Table 1).

## ***Environmental Management***

The Basker-Manta-Gummy Joint Venture has engaged UP as the responsible party for the overall management of the Basker-Manta Project FFD operations. UP has activated its Integrated Management System (IMS) to fulfill the company's environmental policy and objectives and act in an environmentally responsible manner. The IMS is certified to ISO 14001 and is supported by a set of Management System Standards (MSS) which provide a framework for the management of quality, health, safety and environment throughout Upstream Petroleum's operations.

A number of project environmental objectives have been set based on regulatory requirements, oil and gas best practice and company general requirements. Specific project objectives along with applicable standards to minimize potential environmental impacts are outlined in Table 1.

## ***Consultation Process***

Anzon has consulted extensively with fishery groups, fishing industry groups and regulatory agencies in preparation for the Basker Manta project. Anzon will continue to maintain regular communications with identified stakeholders and other interested parties to ensure that they are informed of any changes to the drilling program which may affect commercial fishing operations. Stakeholder consultation will include the following groups:

### **Government Agencies:**

- Commonwealth Department of Environment and Heritage (DEH)
- Australian Maritime Safety Authority (AMSA)
- Department of Environment and Heritage (DEH)
- Department of Industry, Tourism & Resources (DITR)
- Australian Fisheries Management Authority (AFMA)
- Victorian Department of Primary Industries (DPI) – Petroleum & Fisheries
- Marine Safety Victoria (MSV)

### **Commercial and recreational fishing bodies, clubs, tourism operators and other public organizations:**

- Seafood Industries Victoria (SIV)
- South-east Trawl Fishing Industry Association (SETFIA)
- South-east Fishery Association (SEFA)
- Lakes Entrance Fisherman Co-op (LEFCOL)
- San Remo Fisherman Co-op
- Twofold Bay Fisherman Co-op
- VR Fishing (Peak Body for Recreational Fishing)

## ***Contact Details***

Further information associated with the environmental aspects of the Basker-Manta Full Field Development activities may be obtained from Upstream Petroleum by writing to:

Phil Harrick  
Upstream Petroleum HSEQ Manager  
3/342 Flinders Street  
Melbourne Vic 3000

**Table 1 Summary of Performance Objectives, Standards and Criteria for Basker Manta FFD Operations**

Environmental Aspects / Potential Impacts	Environmental Objectives	Management Measures	Management Standards	Residual Risk
<p><i>Physical Presence of FPSO, shuttle tanker, subsea facilities &amp; Support Vessels (Marine Fauna)</i></p> <ul style="list-style-type: none"> <li>• Anchoring disturbs sea-floor resulting in localised loss of sea-floor fauna &amp; temporary disturbance to local habitat</li> <li>• Localised impacts from disconnects on SPM</li> <li>• Subsea &amp; manifold structures become an artificial reef</li> <li>• Disturbance to marine mammals &amp; fauna with altered behaviour (entanglement, etc)</li> </ul>	<p>Minimise impacts to marine mammals</p>	<ul style="list-style-type: none"> <li>• Development Footprint be Minimised</li> <li>• Anchoring Procedures minimise anchor dragging</li> <li>• Environmental awareness program associated with marine impacts for crews</li> <li>• Cetacean Monitoring Program for Crystal Ocean &amp; attendant vessels and reporting to Department of Environment and Heritage</li> <li>• Follow Australian National Guideline for Whale and Dolphin Watching (2005) for mobile vessels</li> </ul>	<ul style="list-style-type: none"> <li>○ Australian National Guidelines for Whale &amp; Dolphin Watching (DEH, 2005)</li> </ul>	<p>Low</p>
<p><i>Physical Presence of FPSO, shuttle tanker, subsea facilities &amp; Support Vessels (Socio-economic)</i></p> <ul style="list-style-type: none"> <li>• Hazard to commercial fishing and shipping (obstacle &amp; oil spill potential)</li> <li>• Commercial fishing impacts in proximity to Surface &amp; Subsea Infrastructure e</li> </ul>	<p>Eliminate incidents which may result in oil spills to marine waters.</p>	<ul style="list-style-type: none"> <li>• Safety zone regulated to protect infrastructure</li> <li>• Consultation with commercial fishing Industry undertaken and to continue</li> <li>• Areal footprint &amp; infrastructure minimised</li> <li>• Marine Notices issued (including prohibition for seabed trawling)</li> <li>• Emergency Response and SOPEP established, approved and tested</li> </ul> <p>When FPSO is connected:</p> <ul style="list-style-type: none"> <li>• Continuous radio and radar watch</li> <li>• Work lights present on FPSO and shuttle</li> </ul> <p>When FPSO is disconnected:</p> <ul style="list-style-type: none"> <li>• Mooring connected to lit buoy and radar transponder</li> </ul>	<ul style="list-style-type: none"> <li>○ PSLA S119: legislated safety Zone</li> </ul>	<p>Low</p>
<p><i>Discharge of Commissioning Fluid</i></p> <ul style="list-style-type: none"> <li>• Potentially harmful/toxic discharges to marine environment</li> <li>• Changed water quality properties at discharge point (pH, DO, etc)</li> </ul>	<p>Minimise impact on surrounding water quality and marine species</p>	<ul style="list-style-type: none"> <li>• Grab sample taken every hour and send the samples to a NATA certified laboratory onshore;</li> <li>• Dewatering carried out only during daylight;</li> <li>• An observer positioned at the rail to look for any discolouration/indication of a sheen on the water; and</li> <li>• Samples of the discharged water retained onboard for future reference for 2 years</li> </ul>	<ul style="list-style-type: none"> <li>○ P(SL)MoE (Reg 29) – Discharges of Produced Formation Water</li> </ul>	<p>Low</p>

**Basker-Manta Full Field Development Summary Environment Plan**

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<p><i>Discharge of Produced Formation Water</i></p> <ul style="list-style-type: none"> <li>Potentially harmful/toxic discharges to marine environment</li> <li>Changed water quality properties at discharge point (pH, DO, etc)</li> <li>Uptake by fish of trace metals, NORM and organics over field life</li> </ul>	<p>Minimise impact on surrounding water quality and marine species</p>	<ul style="list-style-type: none"> <li>PFW treatment prior to discharge to meet P(SL)A discharge constraints</li> <li>Water discharge stream continuously monitored and directed onboard if water specification not met</li> <li>Oil-in-Water Monitors routinely self-calibrated</li> <li>Independent NATA certified oil-in-water test undertaken to verify results</li> <li>Small volumes of chemicals added to water system</li> <li>Chemicals on PFW stream had been assessed as having low environmental impacts</li> </ul>	<ul style="list-style-type: none"> <li>P(SL)MoE (Reg 29) – Discharges of produced formation water</li> </ul>	<p>Low</p>
<p><i>Discharge of Naturally Occurring Radioactive Materials (NORM)</i></p> <ul style="list-style-type: none"> <li>Harmful low-level radioactive discharges to the marine environment</li> <li>Exposure to humans of low-level radioactive materials</li> </ul>	<p>Avoid or minimise impact of NORM to the environment and humans</p>	<ul style="list-style-type: none"> <li>No special management action because the small amount of NORM in PFW and highly dispersive environment have low impacts on marine environment</li> <li>All other wastes containerised and sent onshore for disposal</li> <li>Non-routine activities minimised during FFD phase</li> <li>Radiation survey to confirm exposures &amp; identify high-risk areas in gas processing areas</li> <li>Train personnel in NORM awareness, management &amp; protection (as necessary)</li> <li>Establish vessel entry, vessel cleaning and waste management procedures</li> </ul>	<ul style="list-style-type: none"> <li>APPEA Guidelines for Naturally Occurring Radioactive Materials 2002</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	<p>Low</p>
<p><i>Discharge of Cooling Water</i></p> <ul style="list-style-type: none"> <li>Thermal Impacts to Marine Flora/Fauna</li> <li>Chemical/Oil Impacts to Marine Life</li> </ul>	<p>Avoid negative affects to surrounding water quality</p>	<ul style="list-style-type: none"> <li>Oil in water meter to detect ingress of oil in cooling water discharge</li> <li>Use of Cathelco system, which requires no chemical dosing, to prevent marine growth.</li> </ul>	<ul style="list-style-type: none"> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>



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<p><i>Discharge of Food-scrap &amp; Sewage</i></p> <ul style="list-style-type: none"> <li>Nutrient enrichment of surrounding water</li> <li>Visual amenity impacts</li> <li>Chemical impacts</li> </ul>	<ul style="list-style-type: none"> <li>Avoid negative affects to surrounding water quality.</li> <li>Minimise waste</li> </ul>	<ul style="list-style-type: none"> <li>Sewage macerated in JETS vacuumerator</li> <li>Food scraps macerated to less than 25mm through Galley</li> <li>Equipment inspected daily</li> <li>Macerated effluent discharged below water line</li> <li>Grey-water directly discharged overboard</li> <li>Cleaning agents (detergents) selected are biodegradable</li> </ul>	<ul style="list-style-type: none"> <li>MARPOL73/78 - Annex IV (Sewage) and Annex V - Garbage</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	Moderate
<p><i>Discharge of effluent from Equipment/Machinery Spaces</i></p> <ul style="list-style-type: none"> <li>Potentially harmful/toxic discharges to marine environment</li> <li>Potential turbidity and BOD reduction if discharged</li> </ul>	Avoid negative effects on surrounding marine water quality	<ul style="list-style-type: none"> <li>Area contained and collected in bilge tank &amp; slops oil system</li> <li>Oily water discharged as per deck drainage</li> <li>Residual oil piped through 3-phase separator and reprocessed Chemical storage within spaces minimised</li> </ul>	<ul style="list-style-type: none"> <li>MARPOL 73/78 – Annex 1 (Oil) &amp; Annex II (Noxious Liquid Substances).</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	Low
<p><i>Discharges from Deck Drainage</i></p> <ul style="list-style-type: none"> <li>Toxicity impacts to marine flora and fauna</li> <li>Turbidity of waters about discharge point</li> <li>Potential nutrient increases</li> </ul>	Avoid negative impacts on surrounding marine water quality	<ul style="list-style-type: none"> <li>Oil &amp; Chemical Stores banded with no residues/spills permitted to enter the drainage system</li> <li>Spill equipment available to remove chemical and oil spills</li> <li>At purchasing chemicals are reviewed to ensure availability of MSDS's, spill cleanup materials &amp; storage compatibilities</li> <li>Deck drainage flows to the Spill tank</li> <li>Oil-in-Water Monitor continuously monitors discharge to 15 mg/l oil-in-water quality when vessel en-route and not on location</li> <li>Monitor is routinely self-calibrated</li> <li>NATA certified test to confirm oil-in-water readings routinely undertaken</li> <li>Oil residues are piped back to the 3-phase separator and re-processed.</li> <li>Washdown detergents are biodegradable</li> </ul>	<ul style="list-style-type: none"> <li>MARPOL 73/78 – Annex 1 (Oil) &amp; Annex II (Noxious Liquid Substances)</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	Low

**Basker-Manta Full Field Development Summary Environment Plan**

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<p><i>Discharges of Ballast Water</i></p> <ul style="list-style-type: none"> <li>Species introduction to productive fishery area</li> </ul>	<p>Avoid invasion by non-endemic species</p>	<ul style="list-style-type: none"> <li>Vessel to comply with the Australian Ballast Water Management Requirements (AQIS)</li> <li>AQIS clearance</li> <li>Local ballasting only during FFD</li> </ul>	<ul style="list-style-type: none"> <li>Australian Ballast Water Requirements (AQIS, 2001)</li> <li>MARPOL 73/78 – Annex 1 (Oil): Segregated Ballast Tanks</li> </ul>	<p>Low</p>
<p><i>Storage &amp; Disposal of Environmentally Hazardous and General Wastes</i></p> <ul style="list-style-type: none"> <li>Toxicity and physical impacts to marine flora and fauna</li> <li>Visual Pollution to the marine environment</li> </ul>	<ul style="list-style-type: none"> <li>Avoid negative effects of marine water quality.</li> <li>Minimise wastes</li> </ul>	<ul style="list-style-type: none"> <li>Wastes minimised as part of job planning (JSEA's)</li> <li>Wastes segregated, containerised and labelled</li> <li>Wastes storage areas are covered and bunded</li> <li>All Environmentally Hazardous and General waste returned to shore for disposal</li> <li>No waste overboard policy</li> <li>All personnel are trained in waste management requirements</li> <li>Storage areas are regularly inspected</li> </ul>	<ul style="list-style-type: none"> <li>MARPOL 73/78 – Annex 1 (Oil), Annex II (Noxious Liquid Substances) &amp; Annex V (Garbage).</li> <li>P(SL) MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>
<p><i>Emissions from Combustion Sources (Includes: Generators, flares)</i></p> <ul style="list-style-type: none"> <li>Inefficient use of hydrocarbon resources</li> <li>Release of Greenhouse Gas Emissions</li> <li>Aesthetics of smoke &amp; particulates</li> </ul>	<p>Minimise emissions to the atmosphere &amp; maximise resource utilisation</p>	<ul style="list-style-type: none"> <li>Equipment maintenance program tied to condition monitoring and fuel consumption</li> <li>Flare rates in accordance with approvals</li> <li>Fuel and flare volumes monitored and minimised where possible</li> <li>Condition monitoring and routine maintenance on all combustion equipment (including flare tip) on the <i>Crystal Ocean</i></li> <li>Maximising combustion efficiencies to minimises black smoke/particulate emissions</li> </ul>	<ul style="list-style-type: none"> <li>MARPOL 73/78 – Annex VI (Air Emissions)</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>
<p><i>Atmospheric Emission (Ozone Depleting Chemicals)</i></p> <ul style="list-style-type: none"> <li>Reduces ozone layer increasing humans to UV exposure</li> <li>Contributes to global warming</li> </ul>	<p>Minimise release of Ozone Depleting Substances chemicals</p>	<ul style="list-style-type: none"> <li>Personnel maintaining system have been appropriately training with protocols to minimise emissions</li> <li>System to be maintained in accordance with requirements of the Victorian Industrial Waste Management Policy (Protection of the Ozone Layer)</li> <li>R22 inventory monitoring undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Victorian Industrial Waste Management Policy (Protection of the Ozone Layer)</li> <li>P(SL)MoE (Reg 7) - Operation must comply with the accepted Environment Plan</li> </ul>	<p>Low</p>

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<p><i>Generation of Noise</i></p> <ul style="list-style-type: none"> <li>Potential impacts to marine mammals.</li> </ul>	<p>Avoid or minimise negative effects of noise on sensitive species</p>	<ul style="list-style-type: none"> <li>Helicopter &amp; vessel approach to cetaceans greater than 300 (whales)/150m(dolphins)</li> <li>Cetacean monitoring program for all vessels</li> </ul>	<ul style="list-style-type: none"> <li>P(SL)MoE (Reg 7) – Operation must comply with the accepted Environment Plan</li> <li>Australian National Guidelines for Whale &amp; Dolphin Watching (DEH, 2005)</li> </ul>	<p>Low</p>
<p><i>Oil Spill during (Blow-Out)</i></p> <p>Potential effects include:</p> <ul style="list-style-type: none"> <li>Oiling of Seabirds</li> <li>Fish tainting</li> <li>Shoreline Pollution</li> <li>Disruption to fishing activities</li> </ul>	<p>Avoid negative impact of hydrocarbon releases on surrounding water quality.</p>	<ul style="list-style-type: none"> <li>Approved and tested Emergency Response (ER) &amp; Oil Spill Contingency Plan (OSCP)</li> <li>Pre-approved use of dispersants</li> <li>Wells/Subsea equipment manufactured and installed to approved standards</li> <li>SSSV are fail close</li> </ul>	<ul style="list-style-type: none"> <li>SOPEP consistent with MARPOL</li> <li>P(SL)MoE (Reg 26) - Incidents, reports and records</li> <li>P(SL)MoE (Reg 14) – Implementation Strategy for the Environment Plan</li> <li>P(SL)MoE (Reg 7) – Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>
<p><i>Oil Spill during Fuel Transfer</i></p> <p>Potential effects include:</p> <ul style="list-style-type: none"> <li>Oiling of Seabirds</li> <li>Fish tainting</li> <li>Disruption to fishing activities</li> </ul>	<p>Avoid negative impacts on surrounding water quality</p>	<ul style="list-style-type: none"> <li>Approved and tested ER &amp; OSCP</li> <li>Dispersant pre-approval</li> <li>Approved Fuel Transfer procedures</li> <li>Transfer hose couplings dry-break. Hoses visually inspected at each transfer and replaced every 2 years</li> <li>Transfers during daylight hours under constant visual supervision</li> <li>Transfers in calm weather conditions only</li> <li>Overfill protection devices present on Fuel Tanks</li> </ul>	<ul style="list-style-type: none"> <li>SOPEP consistent with MARPOL</li> <li>P(SL)MoE (Reg 26) - Incidents, reports and records</li> <li>P(SL)MoE (Reg 14) – Implementation Strategy for the Environment Plan</li> <li>P(SL)MoE (Reg 7) – Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>

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<p><i>Oil Spill during (Export/Flowline Rupture)</i></p> <p>Potential effects include:</p> <ul style="list-style-type: none"> <li>• Oiling of Seabirds</li> <li>• Fish tainting</li> <li>• Shoreline Pollution</li> <li>• Disruption to fishing activities</li> </ul>	<p>Avoid negative impact of hydrocarbon releases on surrounding water quality.</p>	<ul style="list-style-type: none"> <li>• Approved and tested ER &amp; OSCP</li> <li>• Pre-approved use of dispersants</li> <li>• Export Crude Procedure</li> <li>• Greenline telemetry system to prevent loss of oil during transfer</li> <li>• QCDC couplings &amp; export line regularly maintained and tested</li> <li>• Operation continuously supervised</li> <li>• Navigation charts reflect anchor prohibition around subsea facilities</li> <li>• SSSV routinely tested</li> </ul>	<ul style="list-style-type: none"> <li>○ SOPEP consistent with MARPOL</li> <li>○ P(SL)MoE (Reg 26) - Incidents, reports and records</li> <li>○ P(SL)MoE (Reg 14) – Implementation Strategy for the Environment Plan</li> <li>○ P(SL)MoE (Reg 7) – Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>
<p><i>Oil Spill during (Vessels Collision)</i></p> <p>Potential effects include:</p> <ul style="list-style-type: none"> <li>• Oiling of Seabirds</li> <li>• Fish tainting</li> <li>• Shoreline Pollution</li> <li>• Disruption to fishing activities</li> </ul>	<p>Avoid negative impact of hydrocarbon releases on surrounding water quality.</p>	<ul style="list-style-type: none"> <li>• Approved and tested ER &amp; OSCP</li> <li>• Dispersant pre-approval</li> <li>• Shuttle tanker is moored 1.5km away from the FPSO when on location</li> <li>• Double hull designs for the FPSO and shuttle tanker crude oil tanks</li> <li>• Adherence to all marine navigation safety requirements and approved safety exclusion zone.</li> </ul>	<ul style="list-style-type: none"> <li>○ SOPEP consistent with MARPOL</li> <li>○ P(SL)MoE (Reg 26) - Incidents, reports and records</li> <li>○ P(SL)MoE (Reg 14) – Implementation Strategy for the Environment Plan</li> <li>○ P(SL)MoE (Reg 7) – Operation must comply with the accepted Environment Plan</li> </ul>	<p>Moderate</p>
<p><i>Hazardous Substance Transportation &amp; Handling by Supply Boat</i></p> <ul style="list-style-type: none"> <li>• Loss of Chemicals or Waste Materials impacting marine environment</li> </ul>		<p>The OSV Code will be observed in the following areas:</p> <ul style="list-style-type: none"> <li>• Cargo handling equipment maintained and operational</li> <li>• Hazardous substance segregation &amp; securing</li> <li>• Containers used are fit-for-purpose, approved for use and labelled.</li> </ul>	<ul style="list-style-type: none"> <li>○ AMSA OSV Code</li> <li>○ OSCP consistent with MARPOL</li> </ul>	<p>Low</p>