



Wheatstone Project

Summary Installation Environment Plan – Pipeline Crossings and Surveys

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WHEATSTONE PROJECT

Summary Installation Environment Plan – Pipeline Crossings and Surveys

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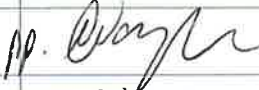
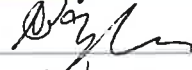


	Name / Title	Signature	Date
Prepared by	Kiri Peat		18/4/13
Checked by	Nathan Waugh		18/4/13
Approved by	Andy Turner		18/4/13
Legal	Kathryn Barras		18/4/13

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1.0 INTRODUCTION

The Summary Installation Environment Plan – Pipeline Crossings and Surveys (this Plan) summarises the Environment Plan for the surveys and rock placement at three pipeline crossing locations on the trunkline route and the trunkline bathymetry survey activities which was accepted by the National Offshore Petroleum Safety Environment Management Authority (NOPSEMA) on 12 April 2013.

1.1 Operator

Chevron Australia Pty Ltd (Chevron) is the proponent for the Wheatstone Liquefied Natural Gas Project.

The Joint Venture Participants in the Wheatstone Project are Australian subsidiaries of Chevron, Apache Corporation, Kuwait Foreign Petroleum Exploration Company, Shell, Kyushu Electric Power Company and PE Wheatstone Pty Ltd (part owned by TEPCO).

1.2 Location

The trunkline route extends along the outer continental shelf west of Barrow Island, at approximately the 110 m isobath. The Wheatstone trunkline crosses the Gorgon (Chevron operated), Jansz (Chevron operated) and Pluto (Woodside operated) pipelines and umbilicals. The crossing locations and locations of the survey of the trunkline route are listed in

Table 1 and depicted in Figure 2.

Table 1: Co-ordinates for the Wheatstone Platform and Trunkline

Location	Easting	Northing
Pipeline Crossing Locations		
139: Gorgon	284658.22	7731109.22
153: Jansz	289037.60	7744381.96
208: Pluto	320822.41	7789036.16
Trunkline Kilometre Points		
27	278030.78	7623772.26
30	276074.94	7626047.06
40	273230.68	7635351.64
50	271979.29	7645273.04
60	270790.24	7655198.97
70	274296.41	7664528.78
80	276364.41	7674190.55
90	276982.07	7684171.46
100	277599.74	7694152.36
110	277649.75	7704149.36
120	277594.03	7714149.21
130	280121.09	7723431.26
140	284953.40	7732064.66
150	287905.25	7741619.06
160	292601.47	7750406.81
170	297692.70	7759013.75
180	303130.43	7767401.13
190	308959.38	7775516.80
200	315333.03	7783218.95
210	322187.71	7790495.19
220	330579.37	7795347.71

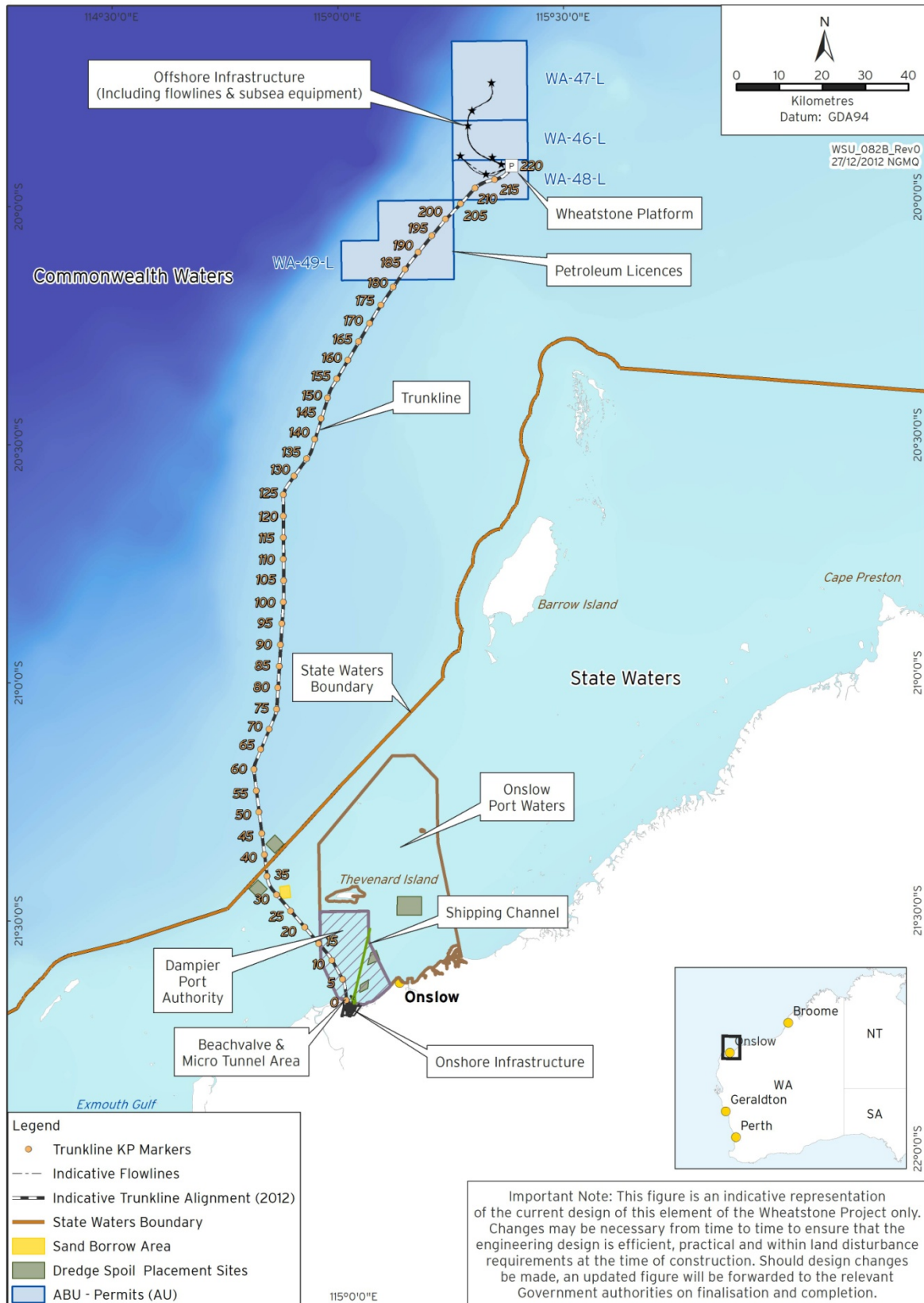


Figure 1: Location of Wheatstone Project Infrastructure

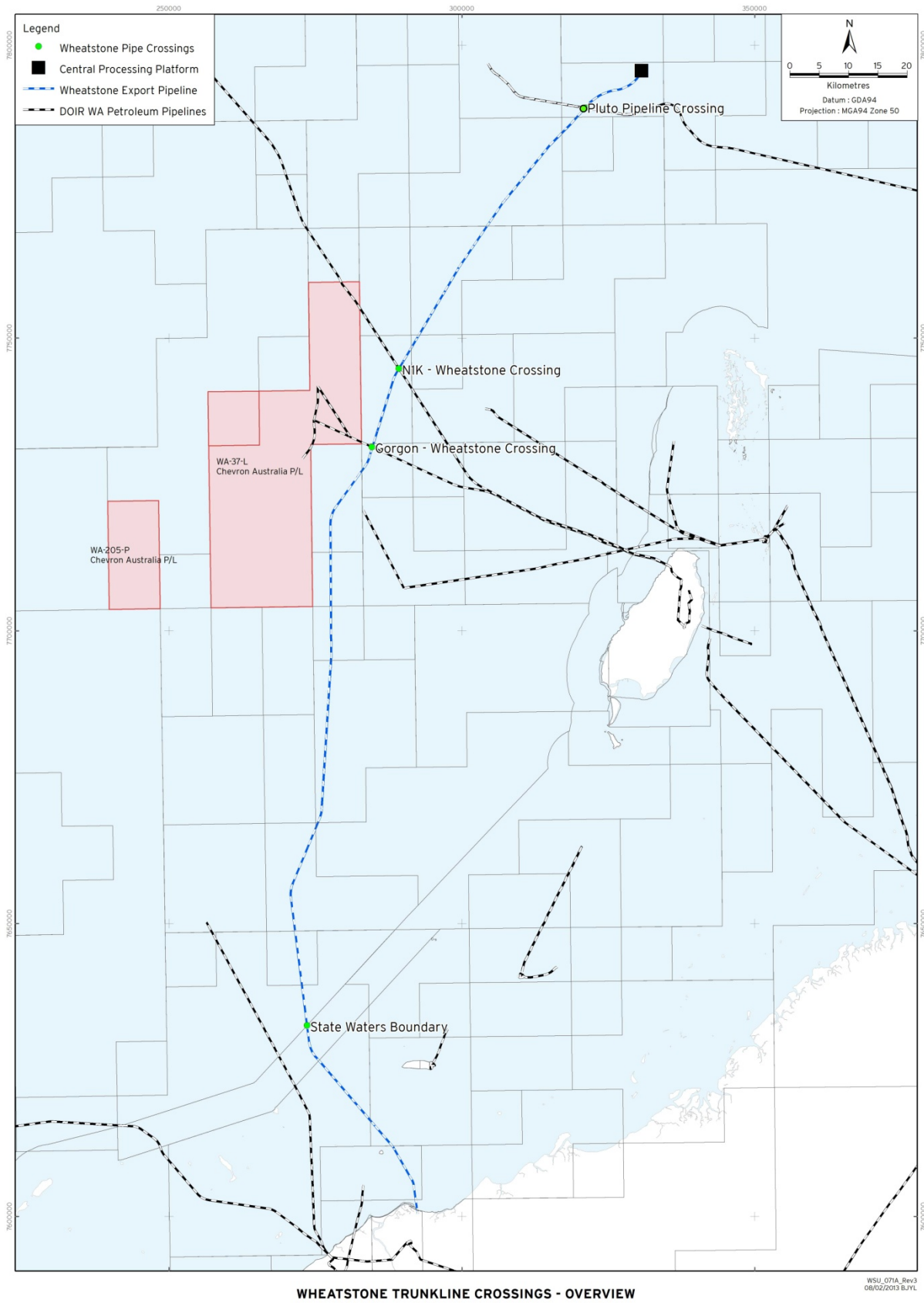


Figure 2: Location of Pipeline Crossings

2.0 DESCRIPTION OF THE ACTIVITY

This Plan covers the surveys and rock placement at three pipeline crossing locations on the trunkline route and the trunkline bathymetry survey activities. The trunkline survey activities have a planned duration of approximately two to four weeks depending how many survey lines are run. The pipeline crossing pre-survey activities have a planned duration of approximately two - four weeks and rock placement planned duration of approximately two to four weeks.

2.1 Pipeline Crossing – Rock Placement

Between the Platform location and State water boundary, the trunkline will cross three sets of pipelines and umbilicals (Figure 2):

1. KP 139: Gorgon production line, MEG line, utility line and umbilical.
2. KP 153: Jansz production line, MEG line, utility line and umbilical.
3. KP 208: Pluto production line, MEG line, utility line and umbilical.

The selected method to cross these pipelines and umbilicals is by placing rock berms on which the trunkline is later laid so as to span existing trunklines and umbilicals.

To support the crossings, rock will be placed on either side of the 3rd party assets using a Fall Pipe Vessel (FPV). The rock placement vessel has a fall pipe consisting of steel and polyethylene pipe sections that interlock, allowing the pipe length to be adapted according to the water depth required. The pipe extends 4-6m above the seafloor. This permits accurate placement at depths while achieving great accuracy through the use of a Remote Operated Vehicle (ROV) pod attached to the bottom of the fall pipe combined with Dynamic Positioning (DP) control of the vessel. A total of approximately 45 000 tonnes will be placed at the three crossings. On completion of the installation of the trunkline further rock placement shall fix the trunkline in place for the design life of the trunkline (out of the scope of this Plan).

2.2 Pipeline Pre-Engineering Survey

The series of pre-installation survey tasks includes:

- ◆ Survey of Trunkline +/- 50 m of the design route centreline and including the 20 m wide pipelay corridor between ±KP 27 and KP 220.159.
- ◆ Surveys at the Gorgon pipeline/umbilical crossings, Jansz pipeline/umbilical crossings and Pluto pipeline/umbilical crossings
- ◆ Survey of pipeline termination area at KP 220.159
- ◆ Investigation of debris/targets/anomalies identified in the pipe lay corridor.

The Trunkline will be surveyed from the 20 m (KP 27) water depth out to the platform location (KP 220). The pre-installation survey extends +/- 50 m of the design route centreline and will be carried out in advance of Wheatstone Trunkline installation to verify the results of the initial route survey and to ensure that no major changes have taken place during the intervening period. The survey will consist of a hull mounted or ROV mounted multibeam echo sounder survey centre line survey supplemented with visual ROV survey should any anomalies be detected on the seabed.

The pipeline crossing rock placement pre and post survey vessel will be similar in capability to the pipeline survey vessel described above. The requirements of the pipeline crossing survey (which could be undertaken by either a FPV or specific survey vessel) is to determine location and condition of existing infrastructure (pre rock placement) and confirm final configuration of crossing complies with design parameters and determine any damage to infrastructure following rock placement.

3.0 DESCRIPTION OF THE ENVIRONMENT

3.1 Physical Environment

The Wheatstone fields are located on the edge of the continental shelf. Surface currents at the Wheatstone Platform (WP) site are dominated by modestly strong tidal variations. East-west variations are stronger than north-south variations. The WP site appears far enough up the slope to be inshore of any noticeable influence by the Leeuwin Current (Buchan, S.J. 1998). Similarly for inshore waters east-west current variations are stronger than north-south variations. Significant wave heights peak in winter and are lowest in summer.

Tides in the project area are semi diurnal with a spring tide range of 1.9 m. Tidal peaks occur near the equinoxes (March, September) and the highest astronomical tide is 2.9 m (Chevron 2010, Chapter 6).

Waters of the North-West Shelf (NWS) show temporal and spatial variation in water temperature, with mean sea surface temperature in open shelf waters being 29.3°C in March dropping to 24°C in August. Nearshore temperatures in semi-enclosed waters fluctuate through a higher range (22.3°C to 30.4°C) (Chevron 2010, Appendix Q7).

The NWS is characterised by a relatively clear water column, however these waters can sometimes have naturally higher levels of turbidity as a result of local current-induced re-suspension of fine sediments particularly in the nearshore waters (Chevron 2010, Appendix Q7, MScience 2009). The regional median turbidity around the Onslow area is <1 Nephelometric Turbidity Units during non-cyclonic periods but rises during summer periods. During spring and summer months, cyclonic conditions increase turbidity through seabed stress but, for the Onslow region, high levels of sediment are also discharged from the Ashburton River.

3.2 Biological Environment

The offshore environments can be broadly classified into State and Commonwealth marine environments. In the ZPI, the State marine environment extends to about the 40-55 m isobath. It is characterised by a broad array of benthic primary producer habitats (BPPH), topographically complex seafloor structures, such as reefs and shoals, some of which come close to the sea surface. Islands are also common within the State marine environment (Chevron 2010, Chapter 6). Ecological communities found within the State waters include:

- ◆ Nearshore benthic habitats
 - seagrass
 - macro algae
 - filter feeders
 - coral reefs and shoals

Activities will occur in the Commonwealth marine environment in water depths from approximately 40 m to 270 m. Unlike the State marine environment, this environment is largely featureless in terms of the seafloor, without islands or topographically complex reef structures. Benthic assemblages in water depths greater than 40 m were much sparser than those in State waters. This is likely due to the limited amount of topographically complex hard substratum in waters >40 m and because of the greater water depths (hence reduced light). Ecological communities found within the Commonwealth waters include (URS 2009; UWA 2009):

◆ Offshore pavements and soft substrates

- Red microalgae mats
- Low profile reefs (assemblages generally 'sponge gardens') however typically found at 40 m or shallower
- Flat to micro rippled (<0.5 m) relief
- Silt/sand substrate
- Sparse (1–10 /m²) to abundant (50–100 /m²) bioturbation (evidence of infauna such as burrows and mounds)
- Trace to very sparse (<1%) benthic sessile and motile invertebrates including soft corals, sea pens, sponges, sea whips, ascidians, urchins and hydroids.

There was no evidence of unique, sensitive or threatened benthic sessile communities and habitats are well represented regionally.

Six species of marine turtles may occur in the Project area. Of the six marine turtle species, only Green, Flatback and, to a lesser extent, Hawksbill turtles are regularly found nesting in the Project area. This predominantly occurs during the summer on offshore islands, including Serrurier, Thevenard, Bessieres, Locker and Ashburton (RPS 2010). Low density flatback nesting has been observed on the mainland beach more than 4 km west of the onshore Project area but none on the beaches adjacent to the Ashburton North Strategic Industrial Area (SIA), which are unsuitable for nesting due to inundation during spring tides. Juvenile green turtles have been observed around the islands, likely in their foraging grounds and flatback turtles may be present year round (Imbricata 2012).

Several species of whale and dolphin are known to occur in the region. Humpback whales are known to move through the region on their northern and southern migrations to and from the Kimberley between June and October. Generally, northbound migration takes place in May to July on the continental slope at an average depth of 300 m. A transitional phase takes place in late August, in which whale distribution varies from depths of 50 m to 1200 m. During the migration south, from September to November, high densities of cow-calf pairs have been observed resting in Exmouth Gulf for periods of up to two weeks. During the southern migration, most of the whales are in waters shallower than 75 m (RPS 2011).

Dugongs (*dugong dugon*) are found in the Project area and more broadly within the shallow coastal waters of the Onslow region. Dugongs tend to occur near seagrass habitats in wide shallow bays, mangrove channels and leas of inshore islands. Survey data suggests a small population of dugong are resident in Project area, within state waters, year round but with seasonal variations in densities (RPS 2010a and URS 2013 in prep).

Coastal dolphin species occur within the project area. Species known to occur include the bottlenose dolphin (*Tursiops truncatus*) and indo-pacific humpback dolphin (*Sousa chinensis*).

3.3 Conservation Areas

Barrow Island and the Montebello Islands are the nearest marine protected areas to the Project area in offshore areas. The proposed Montebello Commonwealth Marine Reserve, to be gazetted in 2014, intersects a small length (Multi-use zone IUCN VI, approximately 3.5 km) of the trunkline. Thevenard Island is a nature reserve in close proximity to trunkline route. The Ningaloo Marine Park is located off the North West Cape and is approximately 65 km south of the nearest point on the trunkline (Chevron 2010).

3.4 Social Environment

The Pilbara economy is dominated by the mining and petroleum industries, with iron ore, oil and condensate, Liquefied Petroleum Gas, LNG and natural gas among WA's largest export revenue earners (Pilbara Development Commission 2006). Onslow Salt Works lies along the eastern adjacent boundary of the Ashburton North site and the BHP Macedon on shore gas plant lies adjacent to the south west.

The waters off the Pilbara coast are home to many managed commercial fisheries including prawn, demersal scalefish, demersal finfish, mackerel, oyster and several types of tuna. The fisheries in closest proximity to Onslow are managed by the Department of Fisheries and include:

- ◆ Onslow and Nichol Bay Prawn Managed Fisheries
- ◆ Pilbara Managed Trap Fishery
- ◆ North Coast Blue Swimmer Fishery
- ◆ Pearl Oyster Managed Fishery
- ◆ Pilbara Line Fishery
- ◆ Mackerel Managed Fishery
- ◆ Specimen Shell Managed Fisher
- ◆ Marine Aquarium Fish Managed Fishery.

Fishing is one of the key recreational activities in Onslow, drawing tourists to the area and contributing to Onslow's identity as a small fishing town. A local charter vessel services the Mackerel Islands Resort on Thevenard and Direction islands offering diving, whale watching and recreational fishing. Charter and tourist boats, usually from Exmouth and Dampier, offer fishing trips and visits to offshore islands including the Montebello Islands (Chevron 2011).

4.0 MAJOR ENVIRONMENTAL HAZARDS AND CONTROLS

The risk assessment methodologies used for this Plan are consistent with the approach outlined in the following standards:

- ◆ Australian Standard/New Zealand Standard (AS/NZS) ISO 31000:2009 Risk Management – Principles and Guidelines (Standards Australia/Standards New Zealand 2009)
- ◆ AS/NZS Handbook 203:2006 Environmental Risk Management – Principles and Process.

Additional detailed risk assessments have been undertaken for specific scopes of work within this Plan, using Chevron's RiskMan2 Procedure. The impact assessment methodology used was identical to the risk assessment methodology. However when quantifying, impacts are assessed solely against the Consequence component of the risk table as an impact is something that is expected to happen and therefore the likelihood determination is not relevant.

The major environmental hazards and the associated management/mitigation measures to ensure these hazards, arising from operational activities, unplanned events and event response activities, are reduced to As Low As Reasonably Practicable are detailed in Table 2.

Table 2: Key Environmental Risks and their Management and Mitigation Measures

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
Rock placement from pipeline crossings	<ul style="list-style-type: none"> ◆ Alteration of natural habitats through changing substrate leading to changes in biodiversity ◆ Degradation of benthic habitat from smothering and physical disturbance 	<ul style="list-style-type: none"> ◆ Fall Pipe Vessel equipped with GPS and DP system to ensure vessel is always accurately located in relation to rock placement activities, to prevent placement of rock outside of the designated areas ◆ The fall pipe will be operated close to the seabed with assistance of an ROV to ensure accuracy of the rock placement
Pipeline survey – ROV clearing activities	<ul style="list-style-type: none"> ◆ Alteration of natural habitats through changing substrate leading to changes in biodiversity ◆ Degradation of benthic habitat from smothering and physical disturbance 	<ul style="list-style-type: none"> ◆ Survey vessel will have GPS to ensure the ROV is always within the pipeline corridor and movement of small rocks, adjacent to trunkline route centre, remain within the direct footprint ◆ The survey will have ROV footage available for review of the surveyed pipeline route such that any unforeseen / unidentified areas of environmental significance (or potential environmental significance) are reviewed by a marine scientist prior to an assessment being made in conjunction with the engineering team on whether the areas is to be avoided, and what alternatives may be viable.
Discharges to sea – Brine	<ul style="list-style-type: none"> ◆ Temporary and localised reduction in water quality 	<ul style="list-style-type: none"> ◆ Volumes are low, vessels are mobile,
Discharges to sea – Cooling Water	<ul style="list-style-type: none"> ◆ Temporary and localised reduction in water quality 	<ul style="list-style-type: none"> ◆ Volumes are low, vessels are mobile,
Discharges to sea - Sewage, Greywater and Putrecible Waste	<ul style="list-style-type: none"> ◆ Localised increase in nutrient availability and BOD 	<ul style="list-style-type: none"> ◆ Sewage is to be treated prior to discharge and equipment maintained as per: <ul style="list-style-type: none"> ▪ MARPOL 73/78 Annex IV, Protection of the Sea (Prevention of Pollution from Ships) Act 1983
Discharges to Sea – Equipment/Machinery Space (oily bilge water and deck drainage)	<ul style="list-style-type: none"> ◆ Marine water quality causing localised acute and chronic toxic effects to marine biota 	<ul style="list-style-type: none"> ◆ In accordance with MARPOL Annex I the disposal of waste oil, bilge and sludge generated in machinery spaces for vessels greater than 400 tonnes will be by one of these methods: <ul style="list-style-type: none"> ▪ Bilge water is to be passed through an oil / water separator prior to discharge to ensure that oil concentrations in discharges are less than 15 ppmv. Discharges are allowed en-route only, which is defined as a passage between ports. Discharges in a Port would not be considered in compliance with MARPOL Annex I. The oily water monitor with its alarm and automatic stopping device will be

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
		<p>routinely calibrated and maintained; or</p> <ul style="list-style-type: none"> ▪ Bilge water is to be taken onshore for disposal at a shore receiving facility. ◆ High standards of housekeeping will be maintained in all areas, including keeping the area litter free and spills (should they occur) will be cleaned up promptly. ◆ Spill containment and recovery equipment will be provided where spills are possible (e.g. where fuel, oil or chemicals are used or stored) and will be maintained to ensure that it is readily available and in working condition. ◆ Compliance with MARPOL Annex V
Wastes	<ul style="list-style-type: none"> ◆ Reduced marine water quality 	<ul style="list-style-type: none"> ◆ Other than food scraps, which are permitted for discharge overboard (if macerated to <25 mm), discharge of wastes overboard is prohibited, and wastes will be stored on-board and either sent to shore for disposal, or incinerated on the vessel. ◆ Compliance with MARPOL Annex V: <ul style="list-style-type: none"> ▪ a Garbage Management Plan is required for vessels 100 t or larger or with more than 15 people on board
Invasive Marine Species (IMS) transported by ballast water or biofouling	<ul style="list-style-type: none"> ◆ Competition with marine fauna and flora for resources ◆ Introduction of disease and pathogens ◆ Detrimental impacts to aquaculture and fisheries ◆ Predation of marine fauna ◆ Reduction of native biodiversity ◆ Possible cross-breeding with native fauna ◆ Alteration of natural habitats ◆ Economic impacts to fisheries. 	<ul style="list-style-type: none"> ◆ Compliance with Australian Ballast Water Management Requirements 2001 <ul style="list-style-type: none"> ▪ All international installation vessels involved in the project are required to conform to the requirements of DAFF Biosecurity Australian Ballast Water Management, including: <ul style="list-style-type: none"> ○ Non-discharge of 'high-risk' ballast water in Australian ports or waters, ○ Full ballast exchange outside Australian territorial seas, and ○ Documentation of all ballast exchange activities (including DAFF Biosecurity clearances). ◆ Implementation of the Wheatstone Introduced Marine Pest Risk Assessment Procedure ◆ Implementation of an Invasive marine pest monitoring programme during the Project activities
Vessel presence	<ul style="list-style-type: none"> ◆ Injury or fatality to marine fauna 	<ul style="list-style-type: none"> ◆ Vessel numbers will be limited for this activity ◆ Implementation of the Conservation Significant Marine Fauna Interaction Management Plan (CSMFIMP) (the CSMFIMP meets the requirements of EPBC Act Division 8.1).

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
		<p>This includes:</p> <ul style="list-style-type: none"> ▪ Requirement for trained crew member onboard all installation vessels. ▪ Establishment of a caution zone, inside which speed limits will be enforced, and restrictions on navigation paths. ▪ Establishment of a no-approach zone, which will not be entered. ▪ Establishment of procedures designed to avoid collisions, including stopping, slowing down and/or steering the vessel away from the marine fauna as appropriate. <ul style="list-style-type: none"> ◆ Compliance with MARPOL Annex V ◆ Relevant waste containers covered
	<ul style="list-style-type: none"> ◆ Vessels and infrastructure interfering with commercial fishing operations or commercial shipping 	<ul style="list-style-type: none"> ◆ The selected trunkline route reduces the likelihood of shipping impacts by minimising the distance where the trunkline runs parallel with shipping routes and reducing the length of trunkline where practical. ◆ Exclusion zones are already established for the existing pipelines; the installation of the pipeline crossings is not expected to result in any new or extended exclusion zones.
Atmospheric Emissions	<ul style="list-style-type: none"> ◆ Reduction in air quality ◆ GHG addition to global inventory 	<ul style="list-style-type: none"> ◆ Use of low sulphur diesel to comply with <i>Environment Protection (Diesel and Petrol) Regulation 1999 (WA)</i>, <i>Fuel Quality Standards Act 2000 (Commonwealth)</i>. ◆ Compliance with MARPOL Annex VI ◆ Pre-Inspections of all Vessels (OVID)
Light emission	<ul style="list-style-type: none"> ◆ Alter marine fauna behaviour 	<ul style="list-style-type: none"> ◆ Reducing non-essential lighting where reasonably practicable ◆ No decorative lighting
Noise emissions	<ul style="list-style-type: none"> ◆ Noise has the potential to impact on marine fauna: <ul style="list-style-type: none"> • Physical (e.g. noise induced pressure trauma, auditory threshold shifts) • Perceptual (e.g. eco-location/communication interference, biological) 	<ul style="list-style-type: none"> ◆ Procedures for minimising impacts from vessel presence (noise) will be implemented as required by the Conservation Significant Marine Fauna Management Plan

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
	masking) <ul style="list-style-type: none"> • Behavioural (e.g. temporary or permanent displacement from feeding/breeding grounds or migratory routes, or stress induced physiological changes) • Indirect (e.g. injury or displacement of prey species). 	
Unplanned events – Spills from vessel collisions	<ul style="list-style-type: none"> ◆ Reduced marine water quality ◆ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats 	<ul style="list-style-type: none"> ◆ Tank and pumps are protected in the ROV frame from possible collision ◆ Marine Operating Procedures (OE-03.09.15) and Navigational Act requirements which include: <ul style="list-style-type: none"> ▪ Certification of vessel masters – qualifications according to vessel class ▪ Radar and automated identification system (AIS) ▪ Large vessels – duplication of radars and collision detection/notification within the radar system ▪ SIMOPS plans to cover all simultaneous vessel operations. This involves scenarios where the pipeline survey vessel comes within 500 m of the FPV and where undertaking works within 500 m of 3rd party pipelines. ▪ Vessel sonar systems and proximity warning systems in line with Navigation Act 2012 requirements ▪ Adverse weather procedures which includes guidance on actions to take ▪ Approved cyclone moorings in State waters which are third party approved ▪ Equipment maintenance in accordance with the vessel maintenance schedule ▪ Navigational lights and radar watch maintained in accordance with safety at sea regulations ▪ Notice to mariners posted to alert other fishing/shipping vessel users in the area.

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
Unplanned events – Spills from damage to live pipelines	<ul style="list-style-type: none"> ◆ Reduced marine water quality ◆ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats 	<ul style="list-style-type: none"> ◆ Elimination control - Rock size in design small enough that in the event that rocks were to hit a live pipeline, rupture of any pipelines is not credible ◆ Accurate placement using FPV with ROV and DP control ◆ Pipeline crossing agreements and Marine Operating Procedures (OE-03.09.15) which include: <ul style="list-style-type: none"> ▪ No anchoring will occur during pipeline crossing rock placement activities therefore no anchors can potentially impact live pipelines. ▪ Isolation control – exclusion zones will be implemented (200 m (Pluto) and 500 m (Gorgon and Janz) from existing assets) inside which overside material/overboard handling is not permitted. As such, it would not be possible for dropped objects to impact existing assets. This excludes planned materials being deployed or discharged overboard such as deployment of an ROV or waste discharge. ▪ Seafastened material onboard vessel. ◆ SIMOPS plan which covers: <ul style="list-style-type: none"> ▪ Vessel undertaking works within 500 m of 3rd party pipelines. This minimises the risk of a vessel collision which subsequently reduces the risk that a sinking vessel could impact a 3rd party pipeline. ◆ Implement Oil Spill Operational I Response Plan
Unplanned events – leak of subsea hydraulic fluids	<ul style="list-style-type: none"> ◆ Localised reduced marine water quality ◆ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats 	<p>ROV and other hydraulic hose bursts will result in alarms and activities being halted:</p> <ul style="list-style-type: none"> ◆ Pressure compensators, hence alarm in case of leakage (and activities halted) ◆ Cameras installed on ROV to check visually for oil leakage ◆ Pressure alarms for the oil and accumulator oil levels.
Unplanned events – Hazardous Materials	<ul style="list-style-type: none"> ◆ Localised reduced marine water quality ◆ Chemical bioaccumulation, injury 	<ul style="list-style-type: none"> ◆ Contractors to develop a chemical selection procedure to ensure products selected will be the least hazardous given constraints of safety and technically and economically feasible

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
	or fatality to flora, fauna and habitats	

5.0 MANAGEMENT APPROACH

Chevron is committed to conducting the surveys and rock placement at three pipeline crossing locations on the trunkline route and the trunkline bathymetry survey activities in an environmentally responsive manner, and aims protect environmental values and reduce impacts to the environment through the implementation of the Operational Excellence (OE) Management System. This system ensures that Chevron and its contractors have the processes, system, equipment, people and procedures in place to continuously reduce all environmental impacts and risks to ALARP.

To achieve this, the Environment Plan details the environmental performance objectives, standards and criteria to monitor the environmental performance of these activities. As such the survey and rock placement activities will be managed in accordance with the Wheatstone Installation Environmental Plan – Pipeline Crossings and Surveys accepted by NOPSEMA.

Chevron have developed and will maintain a detailed internal HES Audit Plan incorporating a schedule covering all key activities during the installation phase. The purpose of the HES Audit plan is to ensure that commitments made in the Contractor execution documentation and contractual obligations specific to HES is undertaken and the Contractor is carrying out the necessary planning and implementation to meet environmental requirements.

To ensure that the environment objectives and standards are met, a number of implementation strategies are defined within the Plan including:

- ◆ Roles and responsibilities for key personnel involved in the projects implementation
- ◆ Training and inductions of all personnel (including contractors and subcontractors) to facilitate the understanding of environmental responsibilities and increase awareness of the management and protection measures required to reduce potential impacts on the environment
- ◆ An environmental audit and review process to assess compliance with the Plan and support a program of continual improvement
- ◆ Environmental monitoring aimed at ensuring the environmental performance objectives and standards are achieved
- ◆ Emergency response in the event of a spill
- ◆ Environmental reporting to Regulators to inform on Chevron Australia's environmental performance including incidents (if any) and environmental records.
- ◆ Requirements for the control of documentation and records to ensure that information is current and accessible
- ◆ Reviews of this plan to ensure continuous improvement.

6.0 CONSULTATION

Consultation with stakeholders has been undertaken by Chevron Australia on a regular basis throughout the development of environmental impact assessment management documentation for the Wheatstone Project. This has included engagement with the community, government departments, industry operators and contractors to Chevron Australia via planning workshops, risk assessments, meetings, teleconferences, and the EIS/ERMP formal approval process.

Stakeholders were also consulted, and will continue to be consulted as required, on the development of this plan and as installation activities are undertaken. Key stakeholders include:

- ◆ Department of Mines and Petroleum
- ◆ Dampier Port Authority
- ◆ Onslow Community Reference Group
- ◆ Onslow Community
- ◆ Fisheries Working Group
- ◆ Onslow Salt
- ◆ Department of Transport
- ◆ Australian Maritime Safety Authority
- ◆ Oil Spill Response Ltd
- ◆ Department of Environment and Conservation
- ◆ Australian Marine Oil Spill Centre
- ◆ Department of Fisheries.

As significant changes to Project activities arise, relevant stakeholders will be updated with information of the proposed changes to enable a process of ongoing stakeholder consultation.

This process involves providing a central phone number and email for all stakeholders to contact if any issues or observations need to be reported during installations scopes associated with this Plan.

Appropriate stakeholders will be consulted in the event of an incident where the stakeholder's interests are likely to be reasonably affected. Those above lists stakeholders which are likely to be consulted on an ongoing basis. This includes; the Onslow Community Reference Group which usually occurs on a quarterly basis, regulators as changes in the Plan arise and fisheries as Project activities progress and change, this is likely to be on an approximately 6 monthly basis.

7.0 CONTACT DETAILS

Further information regarding the Wheatstone project is available at the Chevron Australia website; <http://www.chevronaustralia.com>.

Further information regarding this Plan may also be obtained by emailing Marilyn.Shea@chevron.com.

Marilyn Shea
External Affairs Advisor
250 ST GEORGES TCE
LEVEL 22, QV1 BUILDING
Perth, Western Australia 6001

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