



# wheatstone project works approval supporting information

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works approval supporting information

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## 1 introduction

Chevron Australia Pty Ltd (CAPL) is the operator of the Wheatstone Project which involves offshore facilities gathering and partially processing natural gas and associated condensate from the Wheatstone, Iago, Julimar and Brunello gas fields. The natural gas and condensate is delivered onshore via a trunkline for further processing at the plant site in Ashburton North.

This Works Approval application aims to provide information for DWER to assess upcoming scope to install tie-in infrastructure to facilitate the subsequent hook-up of thermal oxidisers.

### 1.1 Purpose and context

The purpose of this document is to provide information to support CAPL's Works Approval application.

CAPL will be undertaking preparatory steps to alter industrial plant on the premises by installing process tie-in infrastructure. The process tie-in infrastructure will be utilised by a separate project for the installation of Recuperative Thermal Oxidisers (TOX) on the Nitrogen Rejection Unit (NRU) vent streams of the two LNG trains.

The tie-in infrastructure activities may cause an emission and/or alter the nature or volume of waste from the prescribed premises. In addition, the tie-in infrastructure is a preparatory step for the installation of the TOX on the NRU vent streams, and the TOX are intended to alter emissions and the nature or volume of waste from the prescribed premises by reducing methane emissions.

As the tie-in work is for the purpose of altering the industrial plant in advance of installing the TOX on the NRU vent streams, it is a step in the beginning of work on the prescribed premises to alter industrial plant for the purpose of section 53(1)(e) of the Environmental Protection Act 1986 (WA).

To limit emission risks for the tie-in infrastructure, activities which have the potential for leaks/emission risk will be undertaken as part of the turnaround period when LNG trains are offline.

### 1.2 Scope

The scope of this Works Approval includes the following installation work:

- Foundation works
- Process gas tie-ins
- Fuel gas tie-ins
- Instrument air tie-ins
- Firewater system tie-ins
- Electrical distribution system tie-ins
- Control system pre-works.

## 2 project location and tenure

### 2.1 Project location

The Wheatstone Project's offshore processing platform is located in 70 metres of water, about 225 km from the Pilbara coast of Western Australia. Wheatstone's onshore facilities are located 12 kilometres (km) west of Onslow (Figure 2-1). The foundation project consists of two LNG trains with a combined capacity of 8.9 million tonnes per annum (MTPA), and a domestic gas plant.

Natural gas from Wheatstone's domestic gas plant is delivered via pipeline to an inlet point on the Dampier Bunbury Natural Gas Pipeline.



Figure 2-1: Project Location

The tie-in activities occur at the Wheatstone plant, which is part of the prescribed premise for this Works Approval (see Attachment 2A); noting that it is also part of the existing prescribed premise for L9225/2019/1 (Wheatstone LNG Project).

The coordinate information (provided in GDA94, MGA Zone 50) for the premises is in Table 2-1.

Table 2-1: Coordinates for the prescribed premises

Prescribed Premises	Location	Easting	Northing
LNG Trains	North-west	293223	7599850
	South-west	293109	7599399
	South-east	293432	7599311
	North-east	293550	7599768

## 2.2 Tenure

Tenure, lease and title information for the prescribed premises is as follows:

- Wheatstone plant site lease: Part Lot 238 on Deposited Plan 195206 (Volume 396, Folio 3118) and Part Lots 567 and 568 on Deposited Plan 71345 (Certificate of Title Volume 2779, Folio 361 and 362).

## 2.3 Approvals

In September 2008, the proposal to construct and operate the Wheatstone Project was referred to the Western Australian Environmental Protection Authority (under Part IV of the EP Act), where the proposal was assessed via an Environmental Impact Statement / Environmental Review and Management Program (EIS/ERMP) assessment process. A bilateral assessment was undertaken under the EP Act and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

In June 2011, the EPA released its report and recommendations on the project (Report 1404) and Ministerial approval for the full Wheatstone Project was granted in 2011. The approval, Ministerial Statement 873 (MS 873), authorises development of up to six LNG trains with a throughput of up to 25 mtpa and up to four DOMGAS plants.

A number of changes to MS 873 (under section 45C of the EP Act) have been taken into account for minor changes to the project and to remove project elements which are not environmentally significant or can be regulated under Part V of the EP Act.

The premises is located within the Ashburton North Strategic Industrial Area (ANSIA), which was created by the Western Australian government under the Planning and Development Act 2005 for the purpose of LNG and DOMGAS processing and related downstream processing industries. Planning approval is administered by the Western Australian Planning Commission under the ANSIA Improvement Scheme No. 1 (gazetted on 30 September 2016). Planning approval for the Wheatstone Project was granted by the Pilbara Joint Development Approval Panel on 10 July 2013.



### 3 tie-in activities - description and process

#### 3.1 Overview

The Wheatstone plant LNG trains each incorporate a Nitrogen Rejection Unit (NRU), designed to remove nitrogen from the processed gas streams.

The NRUs vent the removed nitrogen to atmosphere. Included in these vent streams is a small fraction of methane and trace amounts of other gases. The large volume of vent gas makes the NRUs the largest source of methane emissions from the Wheatstone plant.

Methane is a more potent greenhouse gas than carbon dioxide. The Australian Clean Energy Regulator estimates the Global Warming Potential of methane as 28 times (Ref. 5) that of CO<sub>2</sub> (Ref. 6). That is, one tonne of methane has the equivalent global warming impact of 28 tonnes of CO<sub>2</sub>. Therefore, it is better from an environmental perspective to oxidise (combust) the methane, than vent it to atmosphere.

The Project aims to reduce methane emissions from the Wheatstone plant by installing Recuperative Thermal Oxidisers (TOX) on the NRU vents streams of the two LNG trains.

Thermal oxidisers work on the principle of adding fuel gas and air to a waste gas stream and incinerating the resulting gas mixture. Prior to the installation of thermal oxidisers, the below activities will be required.

#### 3.2 Foundation Works

Additional foundations are required for the thermal oxidiser packages. Foundation works will include ground preparation (excavation), piling, provision of concrete pads and final grading. Estimated volume of soil excavated is ~5,400 m<sup>3</sup>. Waste soil generated will be managed as per guidelines within the Wheatstone Operations – Downstream Green Guide Environmental Manual (Ref. 2), see also Section 6.4.

Dust and soil management will be implemented as described in Section 6.2.

#### 3.3 Process gas tie-ins

##### 3.3.1 Construction and installation

The scope for each LNG train NRU vent line will include installation of a large bore isolation valve, piping and associated supports. The tie-in to the existing infrastructure is planned to occur during a turnaround, when the upstream NRU trains have been shut down, isolated and headers vented of any residual gas (nitrogen rich stream). Standard shutdown and isolation procedures will ensure the risk of process gas discharges are minimized during the tie-in works. There are no anticipated environmental discharges, noise pollution or dust associated with construction and installation scope.

##### 3.3.2 Commissioning, operation and maintenance

Pipework tied into existing infrastructure will need to be returned to service to enable restart of the LNG train. Given the pressure rating and location of the tie-in, the only commissioning type activity will be inspecting the piping for leaks as part

of an in-service leak test when operational process fluids are introduced at this location as part of the LNG train restart following the turnaround. In the event of a leak, it is expected to be minimal and of the same composition that is normally vented in a nearby location. Note in the event of a leak, there is no increase in emissions as the main stream is normally vented. Leak repairs will take place to enable completion of LNG train restart activities. It is likely that a test flange (blind with a small nozzle and valve arrangement) will be installed to allow proving of the manual valve isolation to allow future on the run piping installation to occur.

New pipework which is not tied into existing infrastructure will be capped and preserved. It will remain empty in preparation for future tie-in of the main TOX packages.

### **3.4 Fuel gas tie ins**

#### **3.4.1 Construction and installation**

At the end of each LNG train fuel gas header (DN150) there is a blind flange. This work scope will tie-in new piping, including a double block and bleed valve isolation arrangement and associated supports. A low point drain with appropriate isolation valving may also be included if required by operations. The tie-in is planned to occur during turnaround, when the upstream fuel gas headers have been shut down, isolated and any residual gas bled off. Standard shutdown and isolation procedures will ensure the risk of fuel gas discharges are minimized during the tie-in works. There are no anticipated environmental discharges, noise pollution or dust associated with the construction and installation scope.

#### **3.4.2 Commissioning, operation and maintenance**

The fuel gas tie-in may be in-service tested or nitrogen leak tested.

If service tested, then fuel gas leakage would be incidental (e.g.  $<2 \text{ m}^3$ ) and reported – no planned release of fuel gas to atmosphere.

If nitrogen leak tested, a worst-case volume of  $\sim 190 \text{ m}^3$  of nitrogen ( $>95\% \text{ N}_2$ ) per Train ( $\sim 380 \text{ m}^3$  total) would be required to leak test the fuel gas headers inclusive of the tie-ins. A small volume ( $<2 \text{ m}^3$ ) of fuel gas may be emitted to atmosphere as part of displacing nitrogen from the header when the fuel gas header is brought into service, but strategies will endeavour to mitigate this.

### **3.5 Instrument air tie ins**

#### **3.5.1 Construction and installation**

A new instrument air take-off is required for each NRU TOX package. Each instrument air tie-in will include installation of a new isolation valve, piping and associated supports. If the tie-ins are routed directly to the instrument air headers, isolation of all instrument users is required and therefore installation will occur during the turnaround period. Standard shutdown, depressurisation and isolation procedures will be followed to ensure tie-ins can be completed safely.

An alternative that may be employed instead, pending final design decisions, is for the new take-offs to be sourced from an existing isolatable instrument air branch. This will limit the impact to only one existing user per train and will not require isolation of the instrument air header.

There are no anticipated environmental discharges, noise pollution, dust associated with the construction and installation scope.

### **3.5.2 Commissioning, operation and maintenance**

Following completion of construction works, the instrument air tie-in line will undergo a service leak test using instrument air from the header, followed by cleaning and drying to ensure new pipework is in acceptable condition to support future on the run works. It is expected that any debris removed will be minimal and air will be clean and emitted to a safe location.

## **3.6 Firewater tie-ins**

### **3.6.1 Construction and installation**

The existing firewater ring-main runs below the proposed location for the NRU TOX packages. Isolation, excavation and relocation of the ring-main may be enacted prior to or during the turnaround whilst users of the firewater protection system are offline. The scope may extend to include provision of additional firewater take-off(s) and monitor(s) as required by the firewater system analysis for the NRU TOX packages.

A grounding grid network (buried cables) is located in close proximity to the firewater piping and is likely to be disturbed in the process of relocating the firewater take-offs and monitors. After excavation activities are completed, the grounding grid network will likely be replaced.

Management of any wastewater (i.e. ~50 m<sup>3</sup> residual firewater or hydrotest water) and any waste soil (~1,200 m<sup>3</sup>) that is generated due to the tie-in works will be conducted as per guidelines within the Wheatstone Operations – Downstream Green Guide Environmental Manual (Ref. 2), see also Section 6.4.

### **3.6.2 Commissioning, operation and maintenance**

The pre-commissioning / commissioning works associated with the firewater tie-ins may include any identified checks and performance tests to ensure that the modified firewater system maintains conformity with the ABU Active Firefighting Operational Performance Standard (Ref. 7). This may include, but is not limited to:

- Completion of inspection checklists of new take-off(s) and monitor(s).
- Energization and testing of instrumentation associated with any new firewater monitors.
- Pressure and leak testing of the modified ring-main, new take-off(s) and monitors.
- Flushing and cleaning of the new pipework and equipment to the required standard.
- Flow and pressure performance testing of new take-off(s) and monitors to ensure the Performance Standard is met.

It is anticipated that leak testing will be an in-service test and therefore any releases would be incidental/unplanned and relatively low volume (e.g. <5 m<sup>3</sup>).

This work may be completed within the turnaround window whilst adjacent facilities which are reliant firewater system are offline or may occur outside of turnaround window with temporary firewater facilities provided.

### **3.7 Electrical distribution system tie-ins**

#### **3.7.1 Construction and installation**

The NRU TOX packages will be powered from the existing switchgears in the train substations. The switchgears will be either HV or LV depending on the requirements of the TOX package vendors.

Due to requirements of Regulation 55 of the Electricity Licensing Regulations 1991, tie-in of the TOX package power cables to the switchgears cannot be completed on the run, while the switchgears are live. As such, the tie-in will be carried out during the 2026 turnaround (TAR) when the switchgears are offline.

During the turnaround (TAR), the associated switchgears will be modified with motor starters suitable for the TOX packages and cables will be terminated to such motor starters. If the field ends of the cables at the TOX packages are not ready for termination during that period, intermediate junction boxes be introduced at the substations to enable the cable termination.

There are no environmental impacts associated with the electrical works.

#### **3.7.2 Commissioning, operation and maintenance**

The TOX packages will be delivered to site after the TAR period. Therefore, only pre-commissioning tests for the motor starters, cables and junction boxes will be carried out during TAR.

### **3.8 Control system pre-works**

#### **3.8.1 Construction and installation**

The control system “pre-works” will be completed during the turnaround (TAR) period when control systems are offline. This will eliminate the occurrence of spurious trips due to human error while working in the cabinets. Tie-in works will install the new PCS and SIS hardware (new I/O cards/nodes, terminal boards, and patch wiring to marshalling terminal strips) in the respective system cabinets.

Tie-ins are being installed due to the quantity of new signals being installed and the potential for unintended contact with or impact to live signals that could impact operations. The hardware modifications will provide physical separation of future tie-ins from operating control loops.

An alternative option is being considered to install new cabinets for the I/O cards, nodes, and terminal boards, rather than placing this control system hardware in the existing cabinets. This option will require electrical tie-ins during the turnaround to supply power to the new cabinets. Cabinets and associated hardware for this option may be installed prior or post the TAR window.

There are no environmental impacts associated with the control system pre-works.

### **3.8.2 Commissioning, operation and maintenance**

The TOX packages will be delivered to site after the TAR period. Therefore, only pre-commissioning checks and tests for the control system pre-work installation will be completed during TAR. There are no associated operations or maintenance activities.

## 4 existing environment

A summary description of the existing environment is provided below. Further detail can be found in the Environmental Impact Statement / Environmental Review and Management Plan (EIS/ERMP) (Ref. 1, [Environmental Approvals — Australia.chevron.com](https://www.environmentalapprovals.com.au)).

All works associated with the activities will be undertaken within previously disturbed Project areas.

### 4.1 Climate

The premises is characterised by arid to tropical climate. It is influenced by the Indian Ocean tropical maritime air and the tropical continental air. The area is considered a cyclone-prone part of Western Australia, with cyclones occurring from November to April. The Pilbara is known to experience significant winds (> 90 km/h) once every two years.

The annual rainfall in the Onslow area is 317 mm. A pronounced dry period occurs between September and December. Summer temperatures range from 24 to 36 degrees. Winter temperatures are between 14 and 26 degrees. Average evaporation rates (~3,100 mm) exceed average yearly rainfall throughout the year.

Winds are seasonal and are predominantly from the west-north-west, west or south-west of the premises.

### 4.2 Geology and soils

The premises and surrounding area are dominated by undulating dunal systems, alluvial/colluvial plains and low-lying coastal systems. Spot height ranges from 5 to 21 m AHD, with high points associated with the longitudinal dune network and fringing and coastal dunes and low relief areas associated with samphire and supra-tidal salt flats, claypans, tidal creeks, and mangroves.

Three soil profiles are present, including red earths, marine/organic deposits and calcareous sands/rock. Potential acid sulfate soil is present at shallow depths within parts of the premises.

### 4.3 Environmental, groundwater and water values

The environmental, groundwater and water values previously identified by DWER for L9225/2019/1 include:

- Pilbara Surface Water Area
- Pilbara Groundwater Area
- Threatened Fauna (marine turtle rookery) – The premises overlaps nesting and foraging ranges for Flatback, Green and Hawksbill turtles, with only flatback turtles nesting at beaches in proximity to the premises. The nearest flatback turtle nesting beach (Ashburton River delta beach) is approximately 4.5 km west of the ANSIA.

- Threatened/Priority Fauna (other) - Six species (mammals and birds) listed as Threatened/Priority Fauna under the EPBC Act and *Wildlife Conservation Act* have been recorded in the vicinity during baseline surveys. Nine listed species may also occur in the area. Fourteen threatened marine fauna species including birds, mammals, reptiles and sharks are known to occur nearshore and offshore to the premises.
- Ashburton River Delta – This is an important, high conservation value and regionally significant ecosystem that supports an extensive area of mangroves and mangrove assemblages that provide habitat for species listed under the EPBC Act and *Wildlife Conservation Act* (e.g. juvenile sawfish and turtle nesting).
- Hooley Creek (minor creek) – The Wheatstone premises is located within the Hooley Creek surface water sub-catchment (1.4km east). This area includes mangrove habitat, tidal habitat and expansive areas of algal mats that support a variety of marine fauna including species listed under the EPBC Act and *Wildlife Conservation Act* (e.g. sawfish and juvenile turtles).
- Ashburton River/Estuary (major river) – This major watercourse is located ~5.5 km west of the premises. It is a surface water drainage system within fringing mangrove and algal mat communities.
- Groundwater – The premises is underlain by a shallow water table that is largely a groundwater discharge zone with groundwater flow direction predominantly to the north and north-east towards the ocean and Hooley Creek.

#### **4.4 Heritage and culturally significant sites**

The footprint area for the activity locations in this Works Approval have been the subject of heritage surveys (archaeological and ethnographic) conducted in 2009 with representatives of the Buurabalayji Thalanyji Association Inc. Subsequent studies and consultation were undertaken between 2010-2012 to support a Section 18 application under the *Aboriginal Heritage Act 1972 (WA)*. All works have been completed under the approved Ministerial Consents and no further sites have been identified in the amendment area, therefore the proposed activities do not pose a risk to Aboriginal cultural heritage.

#### **4.5 Socio-economic environment**

The ANSIA has a 3 km wide statutory buffer between industrial development and sensitive areas. The premises is located in the Ashburton River Delta coastal floodplain. To the south and east of the ANSIA is 'Rural' zoning. Areas to the west are zoned 'Conservation, Recreational and Nature Landscape' and this includes the Ashburton River mouth and the Old Onslow townsite.

The nearest receptor occupied by people is Chevron's Wheatstone Ashburton North Village (8 km south-east). The nearest public use areas are the old Onslow townsite and Four Mile Creek recreational area, where the former also contains the closest public residences (~12 pm north-east).

## 5 stakeholder consultation

No stakeholders were identified as being likely to be impacted by this Works Approval.

An extensive program of community consultation with a broad range of stakeholders was previously undertaken as part of the EP Act Part IV assessment of the Wheatstone Project. CAPL consulted with a broad range of stakeholders including community groups, government departments, business representatives, indigenous groups and individuals. This consultation informed the Environmental Impact Statement/Environmental Review and Management Programme (EIS/ERMP) (Ref. 1). The scope covered in this Works Approval amendment was assessed against the EIS/ERMP and found to be consistent with the content.

In accordance with the EP Act, this Works Approval application will be advertised for public comment for a period of 21 days.



## 6 environmental impacts and management

Environmental impacts associated with the activity in this amendment are addressed in this section. The implemented mitigation and management measures are provided below.

### 6.1 Physical presence

Given the limited terrestrial fauna activity at Wheatstone site, there is a low risk that fauna may be attracted to work sites within the prescribed premises during construction activities associated with piping, electrical and control system tie-ins. Waste from packaging will be disposed of in appropriate receptacles in accordance with standard site practice. As such, physical presence of fauna has been discounted as being a credible risk.

### 6.2 Atmospheric emissions

#### 6.2.1 Dust

Low levels of dust may be generated during installation activities. The duration of activities is considered to be short term. The dust generation anticipated to occur at the plant as part of the Works Approval application is insignificant in comparison to the existing plant and associated operations occurring at the Wheatstone site. Impacts and risks to the environment with regards to dust at the plant site have been determined to not be credible.

#### 6.2.2 Gaseous releases

Emissions into the atmosphere have the potential to affect fauna, notably birds by altering their behaviour (e.g. avoidance).

There is a low risk of gaseous emissions during commissioning leak testing activities; the following releases may result:

- Process gas tie-in: if process gas leaks (nitrogen rich stream) occur during in-service leak testing when operational process fluids are introduced, volumes are expected to be minimal and of the same composition that is normally vented at a nearby location. There is no increase in the emissions as the process stream is normally vented.
- Fuel gas tie-in: if service tested, there are no planned releases, if a leak does occur it is expected to be a low volume <2 m<sup>3</sup> of fuel gas. If a nitrogen leak test is conducted the worst case release would be ~190 m<sup>3</sup> of nitrogen (>95% N<sub>2</sub>) per train (~380 m<sup>3</sup> total) with potential to release a small volume (<2m<sup>3</sup>) of fuel gas when the nitrogen is displaced at the end of the test. To minimize release volumes, isolation will be identified prior to testing. In the event of a release, standard shutdown and venting procedures will be employed.

It is expected that nitrogen would rapidly disperse once released into the atmosphere. No impact is anticipated as nitrogen makes up 78% of the earth's atmospheric gas composition, and no impacts to birds are expected from exposure to vented nitrogen.

Based upon the nature and scale of the activity, the open and dispersive environment, any change or effects on local air quality from potential fuel gas

leaks are expected to disperse rapidly and will therefore be short-term and limited to the point source of the emission.

No measurable change or effect on local air quality is anticipated and no prolonged exposure of birds from such emissions are expected, therefore impacts and risks from leak testing activities and fuel gas have been determined not to be credible.

### 6.3 Noise and vibration

Noise and vibration emissions have the potential to affect fauna by altering their behaviour (e.g. avoidance of habitat during periods of excessive noise, interfering with feeding and breeding behaviour).

Noise and vibration associated with installation activities are temporary and confined to the Wheatstone plant.

The noise and vibration anticipated to occur at the plant as part of the Works Approval application are insignificant in comparison to the existing plant and associated operations occurring at the Wheatstone site. Impacts and risks to the environment with regards to noise and vibration at the plant site have been determined to not be credible.

### 6.4 Solid and liquid waste management

An incident or unplanned event from the storage, handling and transport of solid and liquid waste has the potential to contaminate soil and surface waters.

Foundation works and firewater tie-ins will require the excavation of soil which has the potential to be impacted by contaminants of concern. Liquid waste such as residual firewater or hydrotest water will be generated during testing activities. Solid and liquid wastes generated will be managed as per the guidelines within the Wheatstone Operations – Downstream Green Guide Environmental Manual (Ref. 2).

Controls in place to manage solid and liquid waste are summarised below:

Source of emission or discharge	Emission discharge type	Proposed controls
Foundation works and firewater tie-ins	Soil (~5,400 m <sup>3</sup> from foundation works; 1,200 m <sup>3</sup> from firewater tie-ins)	Soil excavated during works will be tested for contaminants of concern to determine whether it can be re-used or needs to be disposed of as waste. Any soil identified as waste will be disposed of to an appropriate licensed waste disposal facility approved by CAPL.
Firewater tie-ins	Residual firewater and hydrotest water (~50 m <sup>3</sup> ); wastewater from commissioning	Firewater and hydrotest water generated during the scope will be tested for contaminants of concern to determine the appropriate disposal method. <ul style="list-style-type: none"> <li>If the wastewater meets discharge specifications, it will be directed to existing First</li> </ul>

	activities ~<5 m <sup>3</sup> )	<p>Flush Sump locations 30A and 30I (see Attachment 2C). The wastewater will then ultimately discharge to Pond B (via the surface drainage network) which is covered under the L9225/2019/1 Licence.</p> <ul style="list-style-type: none"><li>• If the wastewater is contaminated, it will be directed to existing First Flush Sump locations 30H and 30K (see Attachment 2C) which directs the wastewater to the filtration skid and containerised treatment system, which is covered under the L9225/2019/1 Licence (amendment pending). Once treated, the treated wastewater will ultimately discharge to Pond C or Pond G (also covered under the L9225/2019/1 Licence).</li></ul>
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## 7 works approval fee

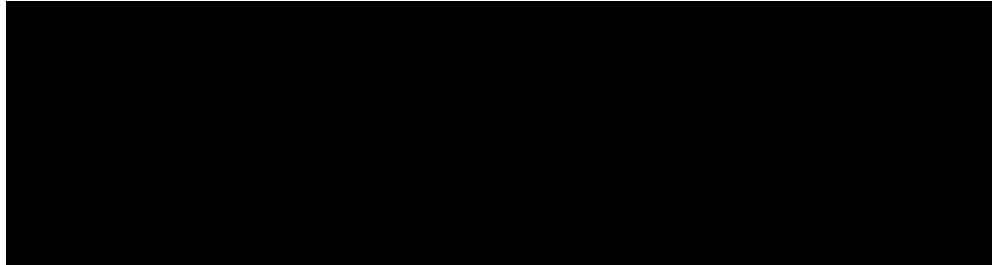


Table 7-2: Industry Regulation Fees

Industry Regulation fees	2018 fees (\$ per unit)	% Increase	New fee from 1 July 2022 (\$ per unit)
Licence fee – premises component (‘Part 1 fees’)	\$40.60	7%	\$43.45
Licence fee – waste component (‘Part 2 fees’)	\$56.80	10%	\$62.50
Licence fee – discharge component (‘Part 3 fees’)	\$56.80	10%	\$62.50
Works approval fee	\$40.60	7%	\$43.45
Registration fee	\$40.60	7%	\$43.45
Fee for amending a works approval or licence	\$6.80	100%	\$13.60
Fee for transferring a works approval or licence	\$71.20	No change	\$71.20

Table 7-3: Relevant parts of Schedule 4 from the Environmental Protection Regulations 1987 showing the Works Approval Fee (Ref. 3)

### Schedule 3 — Works approval fee

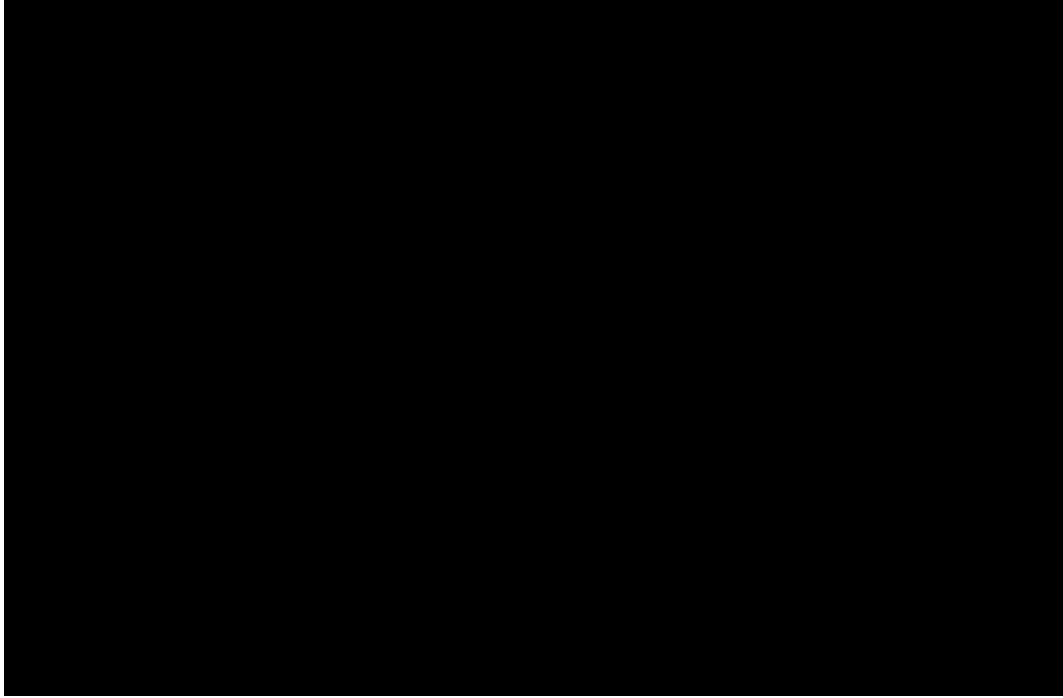
[r. 5BA(1)]

[Heading amended: Gazette 12 Jun 2018 p. 1889.]

Cost of works	Fee units
Not more than \$10 000	15
More than \$10 000 but not more than \$50 000	15 plus 5 for every \$10 000 above \$10 000
More than \$50 000 but not more than \$500 000	35 plus 10 for every \$50 000 above \$50 000
More than \$500 000 but not more than \$5 000 000	125 plus 20 for every \$500 000 above \$500 000
More than \$5 000 000 but not more than \$25 000 000	305 plus 100 for every \$5 000 000 above \$5 000 000
More than \$25 000 000 but not more than \$100 000 000	705 plus 50 for every \$5 000 000 above \$25 000 000
More than \$100 000 000	1405

[Schedule 3 inserted: Gazette 13 Sep 1996 p. 4559-60; amended: Gazette 12 Jun 2018 p. 1889.]

Table 7-4: Breakdown of the cost of works for the Works Approval scope.



*Note: The costs are an estimate as at the time of the submission of the Works Approval application and may be subject to change.*

## 8 acronyms and abbreviations

Table 8-1 defines the acronyms and abbreviations used in this document.

Table 8-1: Acronyms and Abbreviations

Abbreviation	Meaning
&	and
ANSIA	Ashburton North Strategic Industrial Area
BC Act	<i>Biodiversity Conservation Act 2015</i>
CAPL	Chevron Australia Pty. Ltd.
DWER	Department of Water and Environmental Regulation
EIS/ERMP	Environmental Impact Statement/ Environmental Review and Management Plan
EP Act	<i>Environmental Protection Act 1986</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
IBC	intermediate bulk container
L	litre
l/h	litres per hour
m <sup>3</sup>	cubic metre
Mg	milligram
mL	millilitre
mm	millimetre
MT	million tonne
NEMP	National Environmental Management Plan
NRU	Nitrogen Rejection Unit
OTR	On the run
PER	Public Environmental Review
PFAS	Per and polyfluoroalkyl substances
STP	standard temperature and pressure
t	tonne
TAR	Turnaround
TOX	Thermal oxidiser
WA	Western Australia

## 9 references

The following documentation is either directly referenced in this document or is a recommended source of background information.

Table 11-1: References included within this document

Ref No	Reference	Document ID
1.	Chevron Australia. 2008. Environmental Impact Statement / Environmental Review and Management Plan (EIS/ERMP). Perth, Western Australia.	
2.	Chevron Australia. Wheatstone Operations – Downstream: Green Guide Environmental Manual. Perth, Western Australia.	WS1-COP-00002
3.	Western Australian Government. 1987. <i>Environmental Protection Regulations 1987</i> . Perth, Western Australia.	
4.	Commonwealth of Australia. PFAS National Environmental Management Plan. Canberra, Australian Capital Territory.	
5.	Wheatstone Nitrogen Rejection Unit (NRU) Vent Stream Preferred MACC Option	WHS-0000-TEC-KDS-CVX-00001
6.	<a href="https://cleanenergyregulator.gov.au/schemes/national-greenhouse-and-energy-reporting-scheme/about-emissions-and-energy-data/global">https://cleanenergyregulator.gov.au/schemes/national-greenhouse-and-energy-reporting-scheme/about-emissions-and-energy-data/global</a>	
7.	Chevron Australia, Australasia Business Unit Operational Performance Standard – Active Firefighting	ABU-0000-PRO-00027

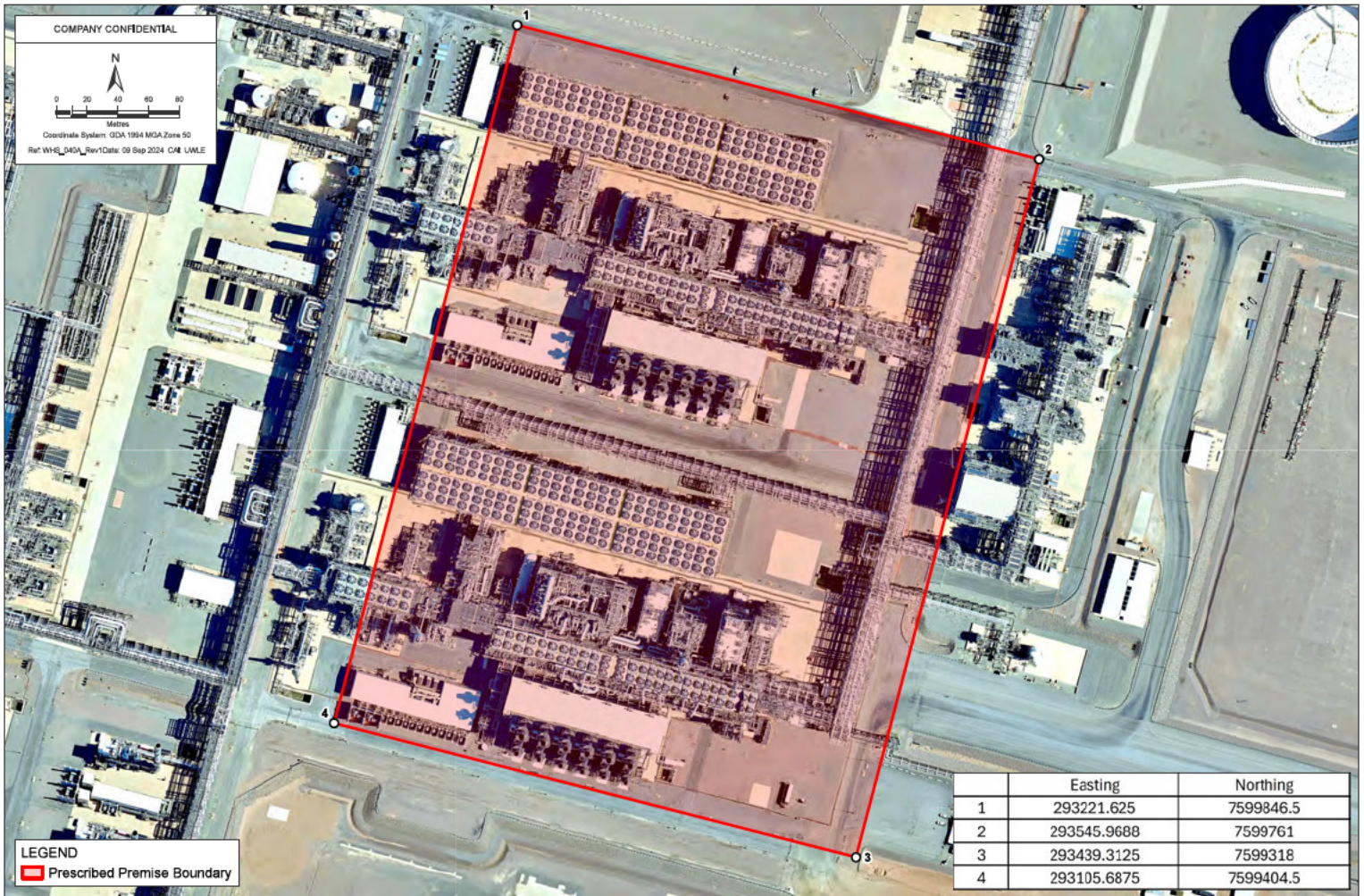
## appendix a: maps

Appendix Table: Maps showing the prescribed premises boundary, infrastructure and equipment locations, and emission/discharge points.

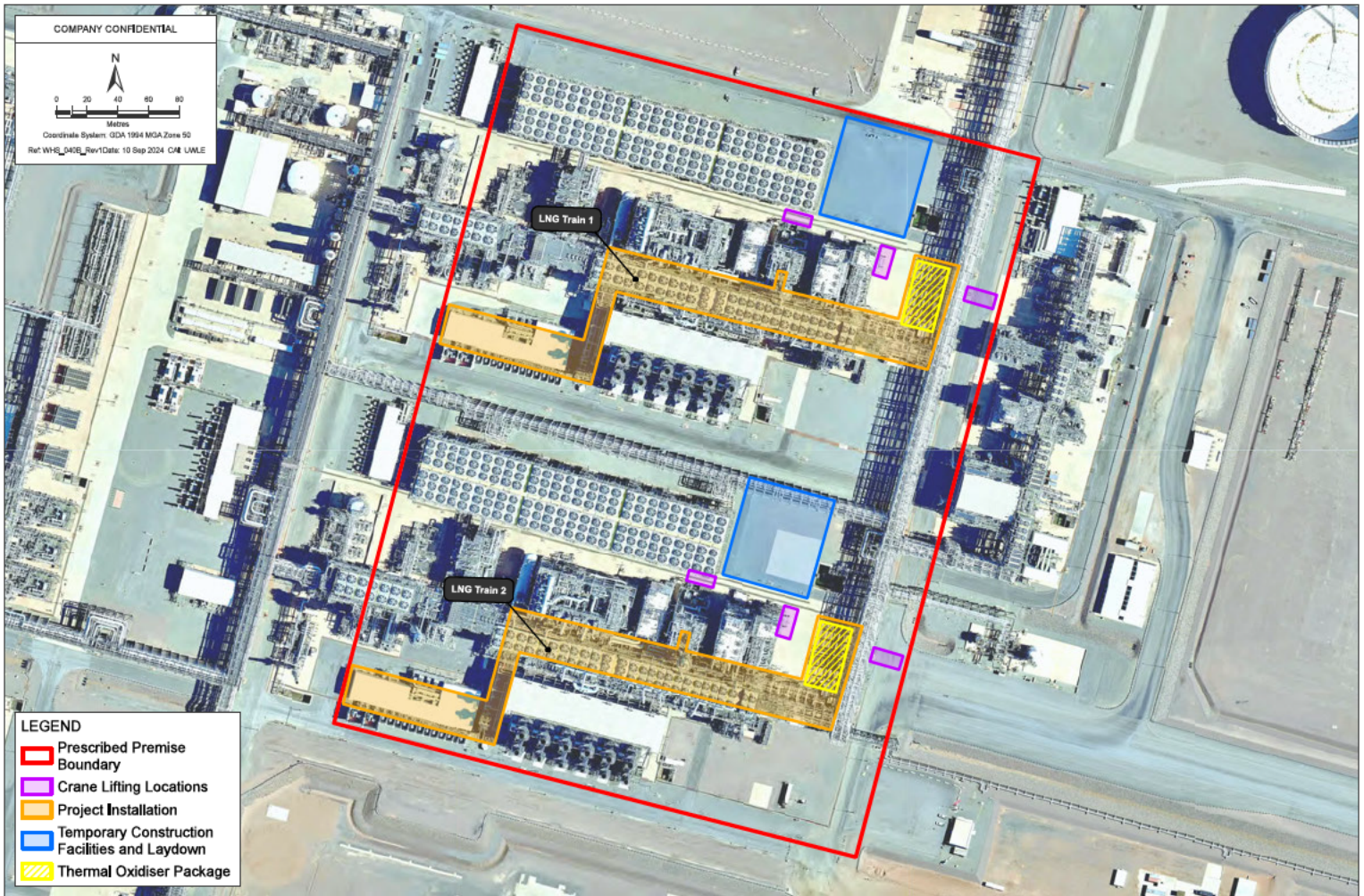
Drawing/sketch number	Revision	Description
Attachment 2A	Rev 1	Prescribed Premises Boundary
Attachment 2B	Rev 1	Infrastructure and Equipment map
Attachment 2C	Rev 1	Emission/Discharge Points map



PRESCRIBED PREMISES BOUNDARY



# INFRASTRUCTURE AND EQUIPMENT



EMISSION/DISCHARGE POINTS

