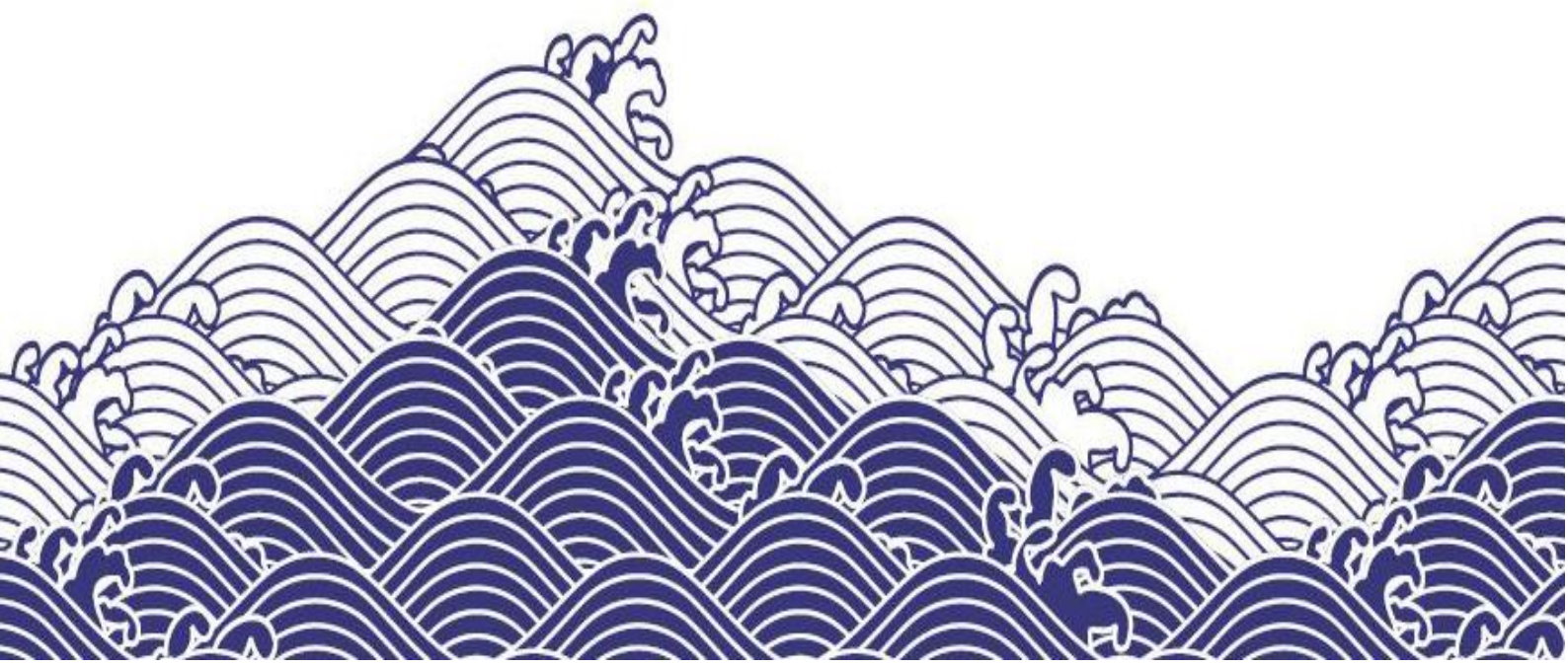




**Annual Compliance Report Ichthys
LNG Project (EPBC
2008/4208): 2025 - 2026**



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Declaration of accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this authorisation.

Signature	
Full Name	Takuya Sugawara
Position	Director
Organisation	INPEX Operations Australia Pty Ltd, ABN 48 150 217 262
Date	

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ABBREVIATIONS, TERMS AND ACRONYMS

Abbreviation, term or acronym	Meaning
ALR Act	<i>Northern Territory Aboriginal Land Rights Act 1976</i>
AOC	accidentally oily contaminated
COS	Coastal Offset Strategy (X075-AH-STR-0001)
CPF	central processing facility
CCPP	combined cycle power plant
DIMT	Darwin Incident Management Team
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
EPBC 2008/4208	the Ichthys LNG Project Commonwealth approval
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
EPL228 (as varied)	The Ichthys LNG environment protection licence issued by the NT EPA to operate the Ichthys LNG facility.
FPSO	floating production, storage and offloading (facility)
GEP	gas export pipeline
Ichthys LNG	the Ichthys LNG onshore plant
INPEX	INPEX Operations Australia Pty Ltd
IPA	Indigenous Protected Area
LDMP	Ichthys Onshore LNG Facilities: Liquid Discharge Management Plan: Operations (L060-AH-PLN-60050)
LDMP Addendum	Onshore Operations Environmental Plan and Liquid Discharge Management Plan: Addendum 1 Firefighting training (L790-AH-PLN-70000)
LNG	liquified natural gas
LPG	liquified petroleum gas
Maintenance DSDMP	Maintenance Dredging and Spoil Disposal Management Plan (L060-AH-PLN-60010)
MNES	matters of national environmental significance
NATA	National Association of Testing Authorities
NCW	non-contaminated water
Nearshore OPEP	Nearshore Oil Pollution Emergency Plan (X060-AH-PLN-60003)
NLC	Northern Land Council
NT	Northern Territory
NT EPA	Northern Territory Environment Protection Authority
OEMP	Onshore Operations Environmental Management Plan
OSMP	Operational and Scientific Monitoring Program
PFAS	per- and polyfluoroalkyl substance

PoM	Plan of Management
QA/QC	Quality Assurance and Quality Control
the delegated Operator	INPEX Operations Australia Pty Ltd
the Project	the Ichthys LNG Project
this Compliance Report	Annual Compliance Report Ichthys LNG Project (EPBC 2008/4208): 2025—2026 (0000-AH-REP-70233)
TN	total nitrogen
TPH	total petroleum hydrocarbons
TRH	total recoverable hydrocarbons
TSS	total suspended solids
Wumara PoM	Wumara Conservation Area Plan of Management (0000-AH-PLN-70033)
cfu/100 mL	colony forming units per 100 millilitres
L	litres
mg/kg	milligram per kilogram
Mt	million tonnes
mV	millivolts
µg/L	micrograms per litre
µg N/L	micrograms of nitrogen per litre
µg P/L	micrograms of phosphorus per litre
µS/cm	microSeimens per centimetre
°C	degrees Celsius
%	percent

1 INTRODUCTION

INPEX Operations Australia Pty Ltd (INPEX) as proponent for the Ichthys LNG Project (the Project), was issued with an approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act; approval EPBC 2008/4208) on 27 June 2011. The EPBC 2008/4208 approval was subsequently amended by variations to conditions 1, 3, 4, 5, 7, 8, 9, 11, 13, 15, 16 and 19 made pursuant to Section 143 of the EPBC Act.

Condition 13 of EPBC 2008/4208 requires INPEX to submit a Compliance Report to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) within 15 months from commencement of operation¹, with each subsequent report submitted within 12 months from the date of the previous report. This is the seventh Compliance Report to be submitted following commencement of operations on 27 July 2018.

Specific Project details are provided in Table 1-1, with an overview and status of activities described in Section 2.

Table 1-1: Ichthys LNG Project details

Item	Project details
EPBC number	EPBC 2008/4208
Project name	Ichthys offshore and onshore processing facilities and subsea pipeline
Approval holder	INPEX Operations Australia Pty Ltd
Approval holder ABN	ABN 48 150 217 262
Approved Action	To develop the Ichthys Field in the Browse Basin to produce liquefied natural gas, liquefied petroleum gas and condensate and including the installation and operation of offshore extraction facilities in Ichthys Field, onshore processing facilities at Bladin Point and 850-935km pipeline from Ichthys Field to Bladin Point, Northern Territory, as described in the referral (EPBC 2008/4208) and the variation to the action dated 11 May 2011.

¹ The Ichthys LNG Project approval (EPBC 2008/4208) defines operations as "the commencement of gas extraction and transfer from subsea wells to the floating liquefied natural gas facility and liquefied natural gas facility and liquefied natural gas tankers". The date reflected is the date the wells were first opened offshore. Onshore operations did not commence until 14 September 2018.

1.1 Purpose and scope

The purpose of this Compliance Report is to meet the requirements of EPBC 2008/4208 Condition 13 (as varied 27 May 2015), which states:

The person taking the action must submit a Compliance Report detailing compliance with any plan, report, strategy, or program (however described) referred to in relation to this approval. The date of the first Compliance Report must be submitted to the Minister within 15 months from the commencement of operation with each subsequent report submitted within 12 months from the date of the previous report. The Compliance Report must be made publicly available on the person taking the action's Australian website for the operational life of the action.

The Compliance Report is not required to include activities conducted within the Commonwealth Marine Area.

The person taking the action may cease complying with Condition 13 if they have written agreement from the Minister.

DCCEEW representatives² have advised that the scope of the Compliance Report is limited to the demonstration of compliance with the following EPBC 2008/4208 conditions (as varied) and their associated plans, programs or strategies:

- Condition 1 - Oil Spill Contingency Plan (as varied on 03 February 2015)
- Condition 2 - Operational and Scientific Monitoring Program
- Condition 5 - Decommissioning Management Plan (as varied on 27 May 2015)
- Condition 8 - Liquid Discharge Management Plan (as varied on 03 February 2015)
- Condition 9 - Noise Management Plan (as varied on 06 March 2014)
- Condition 10 - Dredging and Spoil Disposal Management Plan (as varied on 05 April 2013)
- Condition 11 - Offsets (Coastal Offset Strategy and Plan of Management) (as varied on 10 June 2025).

This Compliance Report addresses compliance with above conditions and associated plans, programs or strategies during the 27 July 2025 to 26 July 2026 reporting period.

As per EPBC 2008/4208 Condition 13, this report does not address activities occurring in the Commonwealth Marine Area. These activities are regulated by the National Offshore Petroleum Safety and Environment Authority under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and associated regulations.

1.1.1 Variations to EPBC 2008/4208 approval conditions

No variations to EPBC 2008/4208 approval conditions have been approved by DCCEEW during the reporting period.

² Email correspondence received from the DCCEEW Compliance Monitoring Team on 30 July 2019.

1.1.2 DCCEEW approved plans or strategies

Table 1-2 provides an overview of relevant DCCEEW approved plans or strategies, which were in effect during the 27 July 2025 to 26 July 2026 reporting period.

Table 1-2: DCCEEW approved plans or strategies

Title	Description
<p>Ichthys Onshore LNG Facilities: Liquid Discharge Management Plan: Operations (LDMP; L060-AH-PLN-60050)</p> <p>Onshore Operations Environmental Plan and Liquid Discharge Management Plan: Addendum 1 Firefighting Training (LDMP Addendum; L790-AH-PLN-70000)</p>	<p>The LDMP describes the measures in place to mitigate the potential environmental effect of liquid discharges associated with onshore Ichthys LNG operations activities.</p> <p>The LDMP (Rev 4) was submitted in accordance with EPBC 2008/4208 Condition 8 and approved on 24 November 2022. A review of the LDMP was completed during the reporting period, with an update anticipated in the subsequent reporting period, as outlined in Table 3-2.</p> <p>The LDMP Addendum (Rev 1) was approved by DCCEEW on 23 June 2021. The LDMP Addendum was prepared, in lieu of a full revision to the LDMP, to address the requirement to undertake portable/mobile firefighting training utilising PFAS-free training foam at Ichthys LNG. The Addendum includes a description of the activity and controls and monitoring that will be undertaken. The LDMP Addendum forms part of the approved LDMP. No updates to the LDMP Addendum occurred during the reporting period.</p>
<p>Nearshore Oil Pollution Emergency Plan (Nearshore OPEP; X060-AH-PLN-60003)</p>	<p>The Nearshore OPEP describes the activities, arrangements, and framework for response to oil spills, which may occur within Northern Territory waters as a result of Ichthys LNG activities (EPBC 2008/4208, Condition 1) and the operational scientific monitoring program (EPBC 2008/4208, Condition 2), which would be implemented in the event of a spill.</p> <p>The Nearshore OPEP (Rev 1) was submitted in accordance with EPBC 2008/4208 Conditions 1 and 2 and was approved by DCCEEW on 23 February 2017. Subsequent to this, the Nearshore OPEP was updated in October 2018 (Rev 2) to incorporate administrative amendments. These amendments did not result in a new or increased risk, and as such was submitted to DCCEEW for information only in accordance with Condition 15.</p> <p>No updates to the Nearshore OPEP occurred during the 2025–2026 reporting period. An update to the Nearshore OPEP was initiated during the reporting period, with submission anticipated in the subsequent reporting period, as outlined in Table 3-2.</p>
<p>Coastal Offset Strategy (COS; X075-AH-STR-0001)</p>	<p>The COS provides high-level details of INPEX’s environmental offset programs as required by EPBC 2008/4208 Condition 11(a).</p>

Title	Description
	<p>Revision 9 of the COS was provided to DCCEEW on 25 February 2026 providing four weeks' notice for implementation as per EPBC 2008/4208 Condition 15 as the revised plan did not have a new or increased impact. The revised COS:</p> <ul style="list-style-type: none">• removed Condition 11b and 11c which are addressed in the Wumara Plan of Management (approved by DCCEEW on 10 June 2025); and,• minor typographic and grammatical changes
Wumara Conservation Area Plan of Management (Wumara PoM; 0000-AH-PLN-70033)	<p>The Wumara PoM includes provisions for the protection and management of terrestrial vegetation, mangroves and marine habitats as required by EPBC 2008/4208 Condition 11(b) and 11(c).</p> <p>The Wumara PoM (Rev 5) was submitted in accordance with EPBC 2008/4208 Condition 11 and was approved by DCCEEW on 10 June 2025.</p> <p>No updates occurred to the Wumara PoM during the reporting period.</p>

2 DESCRIPTION OF ACTIVITIES

2.1 Ichthys project overview

The Ichthys LNG Project (the Project) is a joint venture between INPEX Operations Australia Pty Ltd (as the delegated Operator), major partner TotalEnergies, and the Australian subsidiaries of CPC Corporation Taiwan, Tokyo Gas, Osaka Gas, Kansai Electric Power, JERA and Toho Gas. Drawing on the hydrocarbon resources of the Ichthys gas and condensate field in the Browse Basin at the western edge of the Timor Sea offshore Western Australia, the Project is expected to produce 9.64 Mt of liquefied natural gas (LNG) and 1.65 Mt of liquefied petroleum gases (LPGs) per annum, along with approximately 100,000 barrels of condensate per day at peak. The Project has an expected operational life of at least 40 years.

The Ichthys Field covers an area of around 800 km² and drilling studies suggest that its hydrocarbon resources are 12.8 trillion cubic feet of sales gas and around 527 million barrels of condensate.

The extraction of natural gas and condensate is carried out via a floating semisubmersible central processing facility (CPF) at the Ichthys Field. This removes water and most of the condensate from the reservoir fluids and the separated condensate is transferred to a floating production, storage and offloading (FPSO) facility moored approximately 3.5 km from the CPF. After further processing on the FPSO, the condensate is exported directly from the field at an average rate of up to 85,000 barrels per day.

The dehydrated gas and the remainder of the condensate is compressed and exported through an approximately 890 km long gas export pipeline (GEP) to the Project's onshore processing plant at Bladin Point in Darwin Harbour in the Northern Territory (NT; see Figure 2-1).

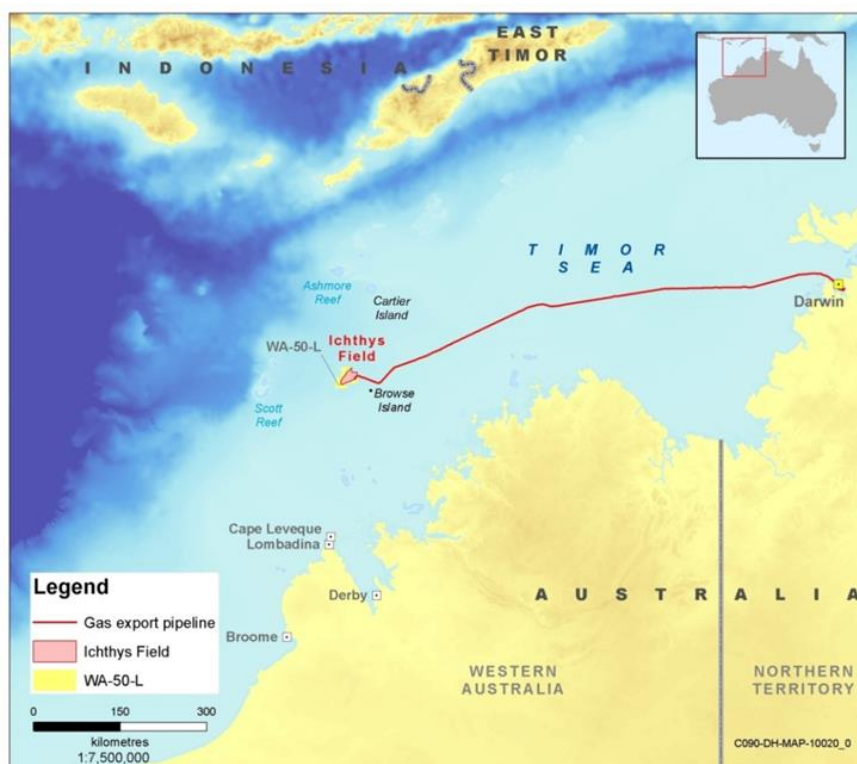


Figure 2-1: Project location

2.2 Current status of activities

Key operations activities undertaken at Ichthys LNG onshore plant (Ichthys LNG) during the reporting period were as follows:

- Activities associated with the product (LNG, LPG and condensate) processing, storage, loading and offtake.
- Activities associated with routine and shutdown maintenance of the onshore facilities.
- Environment monitoring activities.

3 COMPLIANCE WITH EPBC 2008/4208 APPROVAL CONDITIONS

As per the requirements of DCCEEW (2023) the terms and definitions provided in Table 3-1 have been used to indicate the status of compliance with relevant EPBC 2008/4208 approval conditions.

A summary of the compliance status with relevant EPBC 2008/4208 approval conditions (Section 1.1), applicable timeframes and reference to evidence supporting the compliance status (as applicable) is provided in Table 3-3.

Table 3-1: Compliance status terms, acronyms and definitions

Term	Acronym	Definition
Compliant	C	"Compliance" is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.
Non-compliant	NC	A designation of "non-compliance" should be given where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.
Not applicable	NA	A designation of "not applicable" should be given where the requirements of a condition or elements of a condition fall outside of the scope of the current reporting period. For example, a condition which applies to activity that has not yet commenced.

3.1 Audit, reviews and exercises

A summary of the audits, reviews and exercises, as relevant to EPBC 2008/4208 conditions, undertaken during the reporting period is provided in Table 3-2. Outcomes of audits as applicable to EPBC 2008/4208 conditions are presented in Table 3-3

Table 3-2: Summary of audits, reviews and exercises

Audit/review/exercise title	Scope	Date
DCCEEW Site Inspection	<p>Site inspection to inform the investigation into potential non-compliance with the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) approval for the Ichthys offshore and onshore processing facilities and subsea pipeline project (EPBC 2008/4208). The investigation was associated with the heating medium release at ILNG.</p> <p>DCCEEW determined that there was insufficient evidence to substantiate a contravention of Section 142 of the EPBC Act</p>	March 2026

Audit/review/exercise title	Scope	Date
<p>Onshore Operations Environmental Management Plan – Annual Environmental Monitoring Report 2025-2026 third party review and endorsement</p> <p>External third-party review and endorsement – ERM on behalf of Northern Territory Environment Protection Authority (NT EPA))</p>	<p>The review addressed compliance with the Onshore Operations Environmental Management Plan (OEMP; inclusive of liquid discharge management relevant to the LDMP), and relevant conditions of the NT EPA-issued operations environmental protection licence (EPL228 (as varied)). The review and endorsement is required as a part of the EPL228 conditions</p>	<p>September 2026, for the period July 1 2025 - June 30 2026</p>
<p>Nearshore OPEP Review</p>	<p>The review will deliver a revised Nearshore OPEP that aligns with current NT emergency management arrangements and is presented in the Browse Regional OPEP format.</p> <p>The revised Nearshore OPEP will focus on three scenarios, each with a confirmed Controlling Authority and a detailed Initial Response Requirement (First Strike) table.</p> <p>It is expected that the revised Nearshore OPEP will be submitted to DCCEEW for approval in Q1 2027.</p>	<p>Ongoing.</p>
<p>Vessel Surveillance Team Training</p>	<p>INPEX delivered Vessel Surveillance Team training to selected Darwin Port personnel on 29 July 2025.</p> <p>Participants received training on conduct of vessel surveillance operations during an oil spill response incident, including the employment of a Rapid Assessment Team Kit provided to Darwin Port by Santos.</p> <p>Selected participants then employed the knowledge and skills gained during the training to conduct a vessel surveillance task in Exercise Bladin Challenge the following day.</p>	<p>29 - 30 July 2025</p>
<p>Darwin IMT Exercise – Bladin Challenge 25</p>	<p>The Darwin Incident Management Team (DIMIT) conducted Exercise 'Bladin Challenge 25' on 30 July 2025.</p> <p>The exercise was conducted pursuant to Section 2.8.2 of the INPEX ILNG Nearshore Oil Pollution Emergency Plan (NSOPEP).</p>	<p>30 July 2025</p>

Audit/review/exercise title	Scope	Date
	<p>Exercise Bladin Challenge was a real time desktop exercise involving the DIMIT with the ILNG Emergency Response Team (ERT) and INPEX Crisis Management Team (CMT) role played by Exercise Control.</p> <p>The exercise scenario involved the release of Heavy Fuel Oil from an Export Tanker secured to the INPEX condensate Product Loading Jetty into the Port of Darwin.</p> <p>The role of Darwin Port was simulated by Darwin Port representatives in Exercise Control, who in turn coordinated real time operational deployments by Darwin Port and Santos personnel. This included the deployment of a vessel surveillance team and an inshore booming team.</p> <p>The exercise also involved actual mobilisation of local drone service provider, AUAV, by the DIMIT to conduct an aerial surveillance task using a drone and the simulated mobilisation of various oil spill response resources through the Australian Marine Oil Spill Centre (AMOSC).</p>	
Rapid Assessment Team Training	<p>INPEX delivered Rapid Assessment Team training to selected members of the ILNG Emergency Response Team (ERT).</p> <p>Participants received training on the conduct of rapid assessment operations to provide timely and accurate reporting in the field during an oil spill incident at ILNG. This included practical training with the Rapid Assessment Team Kit located at the ILNG Firehouse.</p>	16-18 December 2025
Darwin IMT Exercise – Exercise Cox Challenge 26	<p>The Darwin Incident Management Team (DIMIT) conducted Exercise 'Cox Challenge 26'.</p> <p>The exercise was conducted pursuant to Section 2.8.2 of the INPEX ILNG Nearshore Oil Pollution Emergency Plan (NSOPEP).</p> <p>The exercise comprised two consecutive real time desktop exercises using the same scenario with different team members, one in the morning and the other in the afternoon.</p> <p>The exercise scenario involved a full rupture of the Gas Export Pipeline (GEP) adjacent to the Cox Peninsula.</p>	4 June 2026

Audit/review/exercise title	Scope	Date
	The role of NT Police, Darwin Port and other key stakeholders was simulated by Exercise Control. All operational deployments were simulated through Exercise Control.	

Table 3-3: EPBC 2008/4208 approval conditions compliance table

Condition No.	Condition	Timing	Status	Evidence/Comments
1.	<p>Oil Spill Contingency Plan</p> <p>The person taking the action must develop and submit to the Minister for approval, an Oil Spill Contingency Plan that demonstrates the response preparedness of the person taking the action for any hydrocarbon spills, including the capacity to respond to a spill and mitigate the environmental impacts on the Commonwealth marine area and listed species habitat within offshore areas and Darwin Harbour. The Plan must include, but is not limited to:</p> <ol style="list-style-type: none"> Oil spill trajectory modelling for potential spills from the action. This should include consideration of a well blow out or uncontrolled release. The modelling should be specific to the characteristics of the hydrocarbons contained in the Ichthys gas field, the likely volumes released in a worst case scenario spill, and the potential time over which the oil may be released in a worst case scenario spill, including a scenario of a minimum eleven (11) week uncontained spill; A description of resources available for use in containing and minimising impacts in the event of a spill and arrangements for accessing them; A demonstrated capacity to respond to a spill at the site, including application of dispersants, if required and appropriate, and measures that can feasibly be applied within the first 12 hours of a spill occurring; Identification of sensitive areas that may be impacted by a potential spill, in particular, Browse Island, specific response measures for those areas and prioritisation of those areas during a response; Details of the insurance arrangements that have been made in respect of paying the costs associated with operational and scientific monitoring, as outlined in the Operational and Scientific Monitoring Program required under condition 2 and repairing any environmental damage arising from potential oil spills, as determined necessary from the results of the Operational and Scientific Monitoring Program; Training of staff in spill response measures and identifying roles and responsibilities of personnel during a spill response; and Procedures for reporting oil spill incidents to the Department. <p>The person taking the action must not commence drilling activities until the Oil Spill Contingency Plan is approved. The approved Oil Spill Contingency Plan must be implemented.</p>	Ongoing	Compliant	<p>On Friday 9 October 2025, an unplanned release occurred at the Ichthys LNG Onshore Processing Facility. Following heavy rainfall, the release appeared to breach containment and enter the surrounding intertidal mangrove habitat, where a grey sheen was observed in pooled rainwater within an existing creek line. In response to this event ERT was activated and Darwin IMT were stood up and a quantity of absorbent booms and pads were deployed. NSOPEP activation criteria were not met for shoreline or intertidal benthic community assessment. The spill volume was estimated to be ~1m³ which does not reach the Level 2 threshold of >10m³ outside of battery limits.</p> <p>INPEX continues to maintain oil spill response preparedness pursuant to the approved Nearshore Oil Pollution Emergency Plan (NSOPEP).</p> <p>INPEX maintain two Incident Management Teams (IMT). One is located in Perth and the other is located in Darwin.</p> <p>The Darwin IMT is primarily responsible to manage emergencies related spills in Northern Territory waters.</p> <p>The Darwin IMT continue to maintain their capability via the following activities;</p> <ul style="list-style-type: none"> Weekly IMT Handover meetings that include: <ul style="list-style-type: none"> Current status of both onshore and offshore operations Any changes to Incident Management processes. This includes any changes or updates to the way we respond to Oil Spills IMT refresher training / exercises –IMT members complete this requirement annually. <p>Insurance arrangements were maintained in accordance with the Insurance Plan described in the Nearshore OPEP during the reporting period.</p> <p>During the reporting period INPEX entered into a formal agreement with Darwin Port that improves both the response capability at ILNG and the wider Port of Darwin.</p> <p>Under the agreement, INPEX oil spill response equipment is now stored alongside the Darwin Ports equipment stockpile at East Arm Wharf and is able to be deployed by trained Darwin Port personnel in response to an oil spill incident anywhere in the Port.</p> <p>INPEX also provided specialist vessel surveillance training to Darwin Port personnel to enhance rapid assessment of any spills within the harbour and conducted a joint exercise in July 2025.</p> <p>Note, the Nearshore OPEP is still undergoing a comprehensive revision due to the following influences:</p> <ul style="list-style-type: none"> Changes to Northern Territory oil spill response regulatory arrangements Findings from periodic risk and capability review Findings from exercises Re-structuring to align with other internal oil spill emergency plan arrangements including transition to Incident Management System (IMS) doctrine <p>The Nearshore OPEP is currently under revision. The plan will be re-issued to DCCEE for approval once this is finalised.</p>
2.	<p>Operational and Scientific Monitoring Program</p> <p>The person taking the action must develop and submit to the Minister for approval, an Operational and Scientific Monitoring Program that will be implemented in the event of an oil spill to determine the potential extent and ecosystem consequences of such a spill, including, but not limited to:</p>	Ongoing	Compliant	<p>The Operational and Scientific Monitoring Program (OSMP) is incorporated into the Nearshore OPEP, which address the requirements of EPBC 2008/4208 Conditions 1 and 2 (refer above).</p>

Condition No.	Condition	Timing	Status	Evidence/Comments
	<p>a. Triggers for the initiation and termination of the Operational and Scientific Monitoring Program, including, but not limited to, spill volume, composition, extent, duration, and detection of impacts.</p> <p>b. A description of the studies that will be undertaken to determine the operational response, potential extent of impacts, ecosystem consequences and potential environmental reparations required as a result of the oil spill;</p> <p>c. Details of the insurance arrangements that have been made in respect of paying the costs associated with operational and scientific monitoring, as outlined in the Operational and Scientific Monitoring Program, and repairing any environmental damage arising from potential oil spills, as determined necessary from the results of the Operational and Scientific Monitoring Program;</p> <p>d. Inclusion of sufficient baseline information on the biota and the environment that may be impacted by a potential hydrocarbon spill, to enable an assessment of the impacts of such a spill;</p> <p>e. A strategy to implement the Operational and Scientific Monitoring Program, including timelines for delivery of results and mechanisms for the timely peer review of studies.</p> <p>f. In the event of an oil spill the person taking the action must pay all costs associated with all operational and scientific monitoring undertaken in response to the spill, as outlined in the approved Operational and Scientific Monitoring Program and any environmental remediation determined necessary by the results of the approved Operational and Scientific Monitoring Program; and</p> <p>g. Provision for periodic review of the program.</p> <p>The Operational and Scientific Monitoring Program must be submitted at least three months prior to the commencement of drilling activities.</p> <p>The person taking the action must not commence drilling activities until the Operational and Scientific Monitoring Program is approved. The approved Operational and Scientific Monitoring Program must be implemented.</p>			During the reporting period there were no spill events which required activation of the OSMP. INPEX continues to maintain a contract with an external contractor to ensure OSMP readiness, in the event this is required to be implemented.
5.	<p>Decommissioning Management Plan</p> <p>The person taking the action must submit for the Minister's approval a Decommissioning Management Plan to mitigate the environmental effects of decommissioning the proposal within the Commonwealth marine area. The Decommissioning Management Plan must include a detailed risk assessment to justify leaving any infrastructure on the seafloor of the Commonwealth marine area and must be consistent with any published Commonwealth Government policy or legislation prevailing at the time. Decommissioning cannot commence until the plan is approved. The approved plan must be implemented.</p>	Prior to decommissioning activities	Not applicable	This condition was not applicable during the reporting period.
8.	<p>Liquid Discharge Management Plan</p> <p>The person taking the action must submit for the Minister's approval a Liquid Discharge Management Plan or plans to mitigate the environmental effects of any liquid discharge from the proposal, including sewerage and surface water runoff. The Liquid Discharge Management Plan(s) must be for the protection of the Commonwealth marine area and habitat for listed species in Darwin Harbour and must:</p> <p>a. identify all sources of liquid discharge;</p> <p>b. describe any impacts associated with the discharge of liquids, including the cumulative impacts associated with the discharge of sewerage;</p> <p>c. clearly articulate the objectives of the plan and set measurable targets to demonstrate achievement of these;</p> <p>d. outline measures to avoid impacts;</p> <p>e. where impacts are unavoidable describe why they are unavoidable and measures to minimise impacts;</p>	Ongoing	Compliant	<p>During the reporting period, the following compliance monitoring activities were undertaken:</p> <ul style="list-style-type: none"> Monthly commingled treated effluent (in-pipe) monitoring Biannual groundwater quality monitoring Biennial harbour sediment monitoring Biennial mangrove and intertidal sediment monitoring <p>Non-conformances were recorded where specified commingled treated effluent (in-pipe) discharge limits had been exceeded. Note, in all cases discharge limit exceedances were investigated and corrective actions implemented at the time of the event, in accordance with the LDMP. All exceedances were minor in nature and did not result in any environmental harm or impact. Appendix A provides a summary of these exceedances.</p>

Condition No.	Condition	Timing	Status	Evidence/Comments
	<p>f. demonstrate how any discharges into Darwin Harbour are consistent with the guidelines for discharges, and the water quality objectives for Darwin Harbour, developed under the National Water Quality Management Strategy;</p> <p>g. identify all regulatory requirements relating to the discharge of liquids and how these will be met;</p> <p>h. include a monitoring regime to determine achievement of objectives and success of measures used;</p> <p>i. outline reporting and auditing arrangements; and</p> <p>j. describe how the plan will apply the principles of adaptive management.</p> <p>The plan(s) must be submitted prior to the commencement of the relevant activity to which they apply. The relevant activity may not commence until the plan is approved. Separate Liquid Discharge Management plans can be submitted for the management of liquid discharges in the Commonwealth Marine Area and Darwin Harbour. The approved plan(s) must be implemented.</p>			<p>Results of monitoring programs demonstrate that liquid discharges associated with Ichthys LNG activities have not adversely affected the declared beneficial uses or objectives for Darwin Harbour. A description of the monitoring programs and locations is described in Section 7 of the LDMP, with a summary of the outcomes of each of these monitoring programs provided in Appendix A.</p> <p>The frequency of the monitoring programs during the reporting period are in accordance with Revision 4 of the LDMP.</p>
9.	<p>Noise Management Plan</p> <p>The person taking the action must submit for the Minister's approval a Noise Management Plan (or multiple plans) to avoid and mitigate the noise impacts on marine fauna associated with construction activities in Darwin Harbour or the Commonwealth marine area. The Noise Management Plan/s must be for the protection of listed species in Darwin Harbour or the Commonwealth marine area (whichever area the construction activities are to be undertaken) and must:</p> <p>a. identify all sources of noise that may adversely impact fauna in Darwin Harbour or the Commonwealth marine area;</p> <p>b. describe any impacts associated with noise generated by pile driving and blasting;</p> <p>c. provide a schedule of expected pile driving and blasting activities;</p> <p>d. clearly articulate the objectives of the plan and set measurable targets to demonstrate achievement of these;</p> <p>e. outline measures to avoid impacts;</p> <p>f. where impacts are unavoidable describe why they are unavoidable and measures to minimise impacts;</p> <p>g. include a monitoring regime to determine achievement of objectives and success of measures used;</p> <p>h. provide for the involvement of an expert panel in the development of the plan and monitoring program required to detect and manage impacts;</p> <p>i. outline reporting and auditing arrangements; and</p> <p>j. describe how the plan will apply the principles of adaptive management.</p> <p>In addition, the person taking the action is not permitted to undertake any blasting unless it can be demonstrated that all prudent and feasible alternatives have been ruled out and the Minister has given specific permission to allow blasting. If permission is granted the person taking the action must not undertake blasting activities for more than 28 days in total, without written approval from the Minister, and must not undertake blasting before sunrise or after sunset on any of these days.</p> <p>The plan/s must be submitted at least three months prior to the commencement of any pile driving or blasting activities to which the plan applies. Pile driving or blasting activities may not commence until the plan is approved. The approved plan must be implemented.</p>	Construction phase	Not applicable	No construction activities requiring a noise management plan occurred during the reporting period.
10.	Dredging and Spoil Disposal Management Plan	Ongoing	Not applicable	The Maintenance Dredging and Spoil Disposal Management Plan (Maintenance DSDMP; L060-AH-PLN-60010), which covered dredging activities during a five-year period (January 2018 – January 2023) ceased to be in effect as of 31 January 2023.

Condition No.	Condition	Timing	Status	Evidence/Comments
	<p>The person taking the action must submit for the Minister's approval a Dredging and Spoil Disposal Management Plan (DSDMP) for the protection of inshore dolphins, marine turtles and Dugong occupying Darwin Harbour. The DSDMP must include, but is not limited to, the following:</p> <ol style="list-style-type: none"> final methodologies for dredging including the method and timing of dredging activities; a schedule for dredging activities; a comparison of dredging methodologies proposed based on potential impacts on dolphins, turtles and Dugongs associated with individual methods, including noise and sediment plumes; justification of the dredging option/s chosen based on best practice at the time; mitigation measures, including measures for each type of dredge to avoid entrapment of marine turtles; methods to prevent, detect and respond to impacts on any number of marine turtles; measures that allow the alteration of dredging activities and/or implement mitigation methods in an adaptive management framework to ensure the protection of turtles, Dugongs and dolphins; the outcomes of hydrodynamic and sediment transport modelling required to predict impacts and finalise the design of the dredging campaign; contingencies to manage dredging if there is a significant departure from predicted impacts; an ecological monitoring program, which must exist either in full within the DSDMP, or as a standalone document (see Note 1 below) that is appropriately referenced in the DSDMP; the involvement of an expert panel in the development of the plan and monitoring program required to detect and manage impacts; and reporting and auditing arrangements. <p>The DSDMP must be submitted at least three months prior to the commencement of dredging. Dredging for which the DSDMP has been prepared must not commence until the DSDMP is approved. The approved DSDMP must be implemented.</p> <p>Note 1: Regarding condition 10(j); if the person taking the action wishes to prepare the ecological monitoring program as a standalone document, then the ecological monitoring program must be approved in writing by the Minister. The approved ecological program must be implemented.</p>			INPEX is currently in the process of preparing a new Maintenance DSDMP, which is expected to be submitted for Ministerial approval in 2026/2027.
11.	<p>Offsets</p> <p>The person taking the action must submit for the Minister's approval a Coastal Offset Strategy and Plan of Management for the protection of listed threatened species and listed migratory species impacted by the proposal in Darwin Harbour. The Coastal Offset Strategy must include:</p> <ol style="list-style-type: none"> The Coastal Offset Strategy must include high level details on the implementation of the following offsets outlined in the Northern Territory Government's letter to the Acting Secretary of the Department of Sustainability, Environment, Water, Population and Communities dated 23 May 2011, including a commitment and indicative schedule for the development of detailed sub-plans for each offset program: <ul style="list-style-type: none"> publication of data collected for the Browse Basin and Kimberley coastline; an integrated monitoring and research program for Darwin Harbour; habitat mapping for Darwin Harbour Region (including Bynoe Harbour); funding of Australian Research Council Linkage projects; conservation management of dugongs, cetaceans and threatened marine matters of national environmental significance in the Top End; and 	Ongoing	Compliant	<p>Condition 11a</p> <p>Condition 11a offset programs which have been completed and were reported on in previous Compliance Reports have been excluded from this Compliance Report. The following Condition 11a programs remain ongoing during the 2025/2026 reporting period:</p> <ul style="list-style-type: none"> Darwin Harbour integrated marine monitoring and research program Conservation management of dugongs, cetaceans and threatened marine matters of national environmental significance in the Top End. <p><u>Darwin Harbour integrated marine monitoring and research program</u></p> <p>During the reporting period a number of field activities and reports were completed, including:</p> <ul style="list-style-type: none"> Sediment Monitoring: <ul style="list-style-type: none"> Completion of the annual Darwin Harbour benthic sediment sampling for 2025/26 reporting period Anthropogenic Pressures:

Condition No.	Condition	Timing	Status	Evidence/Comments
	<ul style="list-style-type: none"> research on the conservation status, distribution and habitat use of coastal dolphins. <p>b. The Plan of Management must include provision for the protection and management, for the life of the project, of approximately 2000 ha of terrestrial vegetation and mangroves, or of an area as otherwise agreed by the Minister;</p> <p><i>Note 1: Protection can include the acquisition and inclusion of an area in the conservation estate, covenanting arrangements on private land, other formal agreements with private landholders, or permanent changes to management regimes on Crown or Aboriginal land.</i></p> <p><i>Note 2: This condition does not limit the provision of these offsets in synergy with any conditions of any other approving party.</i></p> <p>c. The Plan of Management must include provision for the protection and management, for the life of the project, of marine habitat for inshore dolphins, marine turtles and Dugong that is preferably, but not necessarily, adjacent to the protected mangrove vegetation.</p> <p><i>Note 1: Protection can include the acquisition and inclusion of an area in the conservation estate, covenanting arrangements on private land, other formal agreements with private landholders, or changes to management regimes on Crown or Aboriginal land.</i></p> <p><i>Note 2: This condition does not limit the provision of these offsets in synergy with any conditions of any other approving party.</i></p> <p>The Coastal Offset Strategy and Plan of Management must include commitments to timeframes and funding arrangements and be made available on the proponent's website. The Coastal Offset Strategy must be submitted for approval at least three months before construction activities commence in Darwin Harbour. No construction activities may commence in Darwin Harbour until the Coastal Offset Strategy is approved.</p>			<ul style="list-style-type: none"> Drafting of the Darwin Harbour pressure monitoring report for 2025/26 Mangrove Monitoring: <ul style="list-style-type: none"> Completion the Darwin Harbour mangrove monitoring report for 2024/25. Darwin Harbour Integrated Monitoring and Research Coordination Committee meetings were held 20 October 2025 and 20 April 2026. <p><u>Conservation management of dugongs, cetaceans and threatened marine Matters of National Environmental Significance (MNES) in the Top End</u></p> <p>The fifth year of funding was provided during the reporting period. Following review of applications, the Northern Territory Government awarded three new grants in the reporting period, with ongoing funding also provided to seven existing multi-year projects awarded in the previous year/s. Total grant funding for the reporting period was \$1,298,755.70.</p> <p>The three new grants are summarised below:</p> <p>New Conservation Projects:</p> <ul style="list-style-type: none"> <i>Foundations for miyapunu (Sea Turtle) monitoring and conservation (Marthakal IPA)</i> - this project has been developed to identify current threats to marine turtles in Marthakal Sea Country that may require further monitoring and mitigation, such as entanglement in marine debris and feral animal predation. Targeted surveys will also be conducted during the expected peak nesting window to obtain revised baseline information on nesting activity. Beach cameras will be deployed to monitor nesting activity year-round to characterise seasonality and nesting duration. The project will provide coxswain qualifications and hands-on training to Rangers in survey methods and technologies to develop the skills required to perform ongoing monitoring that supports conservation outcomes for MNES within the IPA. <p>Capital:</p> <ul style="list-style-type: none"> <i>Namultja Aboriginal Corporation (Marranbala Land and Sea Rangers)</i> – purchase a vessel, trailer and vehicle to support the recently established Marranbala Land and Sea Rangers and Marranbala Land and Sea Country Plan, which includes Limmen Marine Park (Cwlth) and Limmen Bight Marine Park (NT). Capital items will allow rangers to undertake conservation activities such as sea patrols, benthic habitat mapping, fauna monitoring, debris removal and turtle nesting protection. <i>Arafura Swamp Rangers Aboriginal Corporation</i> – purchase two vessels, trailers and associated safety equipment to allow the Wanga Djakamirr Rangers and Dhipirri Rangers to undertake illegal foreign fishing vessel surveillance, marine debris management and biosecurity risks and the monitoring of shark and ray (inc. sawfish) populations in partnership with Charles Darwin University. <p>Condition 11b and 11c</p> <ul style="list-style-type: none"> Section 19 Land Use Covenant between INPEX and the Northern Land Council executed on 5 December 2025, allowing work to commence on Country. Wumara Conservation Area Agreement between INPEX and Bawinanga Homelands Aboriginal Corporation signed on 18 December 2025. Workplan and budget approved, signed, with Bawinanga Homelands Aboriginal Corporation for the 2025-2026 period. Project work delayed for the first half of the period after the passing of the Lead Ranger at Bawinanga Homelands Aboriginal Corporation in January 2026. To maintain respect for traditional practices and allow the community time to grieve, INPEX advisors consulted with the Ranger Manager and elders before recommencing work on Country.

Condition No.	Condition	Timing	Status	Evidence/Comments
				<ul style="list-style-type: none">In the second half of the period, Bawinanga Rangers have recommenced planned work on Country, including feral animal culls, protected species monitoring and weed management. Project information related to this offset condition is available at <https://www.inpex.com.au/projects/ichthys-lng/our-commitments/>.

4 REFERENCES

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APPENDIX A: SUMMARY OF OPERATIONS MONITORING PROGRAM RESULTS

A.1 Commingled treated effluent (in-pipe) monitoring

Commingled treated effluent (in-pipe) sampling was undertaken monthly throughout the reporting period. Where an exceedance was detected, additional sampling was undertaken where this was determined to be required. In addition to routine monthly sampling, ad hoc sampling was undertaken as part of the onsite laboratory National Association of Testing Authorities (NATA) Australia accreditation Quality Assurance and Quality Control (QA/QC) processes.

The results for in-pipe monitoring at sample location 750-SC-003 for the reporting period are presented in Table A-1. Results that exceeded discharge limits are shown in bold text.

With the exception of the faecal coliform trigger limit that was exceeded on four occasions during the reporting period, no other water quality parameters exceeded their respective trigger limits as specified in Table 7-2 of the LDMP. These are detailed further in Table A-1.

A.1.1 Limit exceedance assessment outcomes

A summary table of all discharge limit exceedances, including corrective actions is provided in Table A-2.

Following the sampling events in which wastewater quality was above the discharge limit for faecal coliforms, further sampling at 750-SC-003 and other key sources was undertaken to isolate the source. On all occasions, the exceedances were related to the limitations of applying measured, thermotolerant coliform concentrations to the faecal coliform trigger limit. Thermotolerant coliforms are a group that includes types that can grow in the environment and be present in the absence of faecal contamination (NHMRC & NRMCC 2011). This was demonstrated through the investigations by:

- isolating and testing all sources that supply the discharge line (i.e. what is tested at 750-SC-003)
- low thermotolerant coliform concentrations recorded from the sewage treatment plant
- low numbers of *Escherichia coli* and enterococci concentrations detected in all samples (faecal coliform bacteria in human faeces comprise approximately 97% *E. coli*, 2% *Klebsiella*, and a further 2% *Enterobacter* and *Citrobacter* together (ANZECC 2000)).

Various guideline documents including the Australian Water Quality Guidelines (NHMRC & NRMCC 2011) highlight that thermotolerant coliforms can be used as an indicator of faecal contamination, but they are not as specific as *E. coli*, which is the preferred indicator. *E. coli* concentrations were low during all sampling events and below trigger limits for both the LDMP and the Water Quality Objectives for the Darwin Harbour Region (NTG 2010). External specialists have been engaged to complete an external review of these trigger limits. The outcomes of this review will be used to support any application INPEX makes to amend the LDMP.

Volumetric flow rate was measured in line with the requirements outlined in Table 7-2 of the LDMP. The data demonstrates that the volumetric flowrate throughout the period remained below the 180 m³/h discharge limit (Figure A-1).

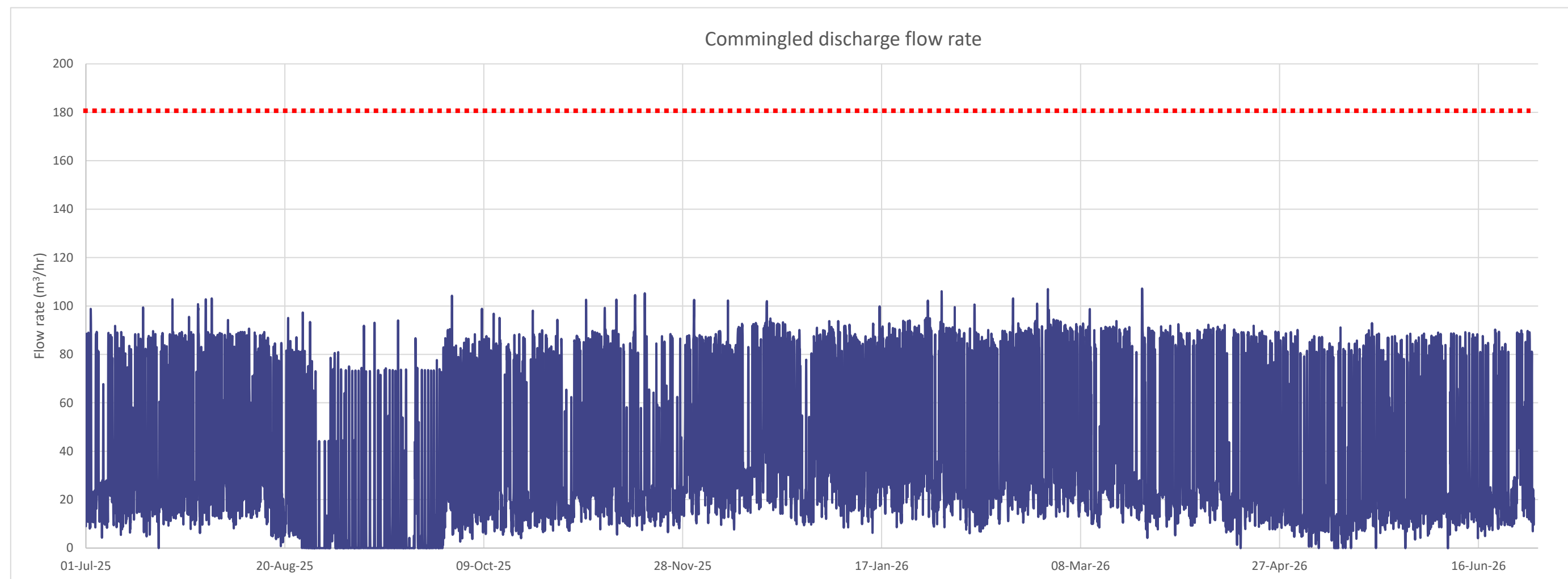


Figure A-1: Flow rate measured at L-750-FI-0002 flow meter (m3/h)

Table A-1: Monthly sampling results for 750-SC-003 (shaded bold values indicate an exceedance)

Date	Time	LIMS Sample ID	pH	Electrical conductivity	Temperature	Turbidity	Dissolved oxygen	TPH as oil & grease	TRH (C6-C10)	TRH (C10-C40)	TSS	BOD	COD	Free Chlorine	Ammonia	Total nitrogen	Total phosphorus	Filterable Reactive Phosphorus	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Silver	Zinc	Enterococci	E coli	Thermotolerant/Faecal coliforms	Anionic surfactants	aMDEA	Glycol (MEG)	Glycol (TEG)
Unit			pH units	µS/cm	°C	NTU	%	mg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg N/L	mg P/L	mg P/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	cfu/100mL	cfu/100mL	cfu/100mL	mg/L	mg/L	mg/L	mg/L
Discharge limit			6-9	n/a	35	n/a	n/a	6	n/a	n/a	10	20	125	2	n/a	10	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100	400	n/a	n/a	n/a	n/a
8/07/2025	8:00	L2503364001	8.7	396	26.5	1.0	77	< 1	<20	<100	< 5	4	13	< 0.02	11	10	< 0.5	< 0.5	<0.1	<1	4	<1	<0.1	<1	<1	54	6	3	260	<0.1	<5	<5	<5
12/08/2025	8:10	L2503865001	8.6	324	25.6	1.0	78	< 1	<20	<100	< 5	2	9	0.02	6	6	< 0.5	< 0.5	<0.1	<1	2	<1	<0.1	<1	<1	51	4	<1	140	<0.1	<5	<5	<5
9/09/2025	8:07	L2504385001	8.0	299	29.6	0.5	79	< 1	<20	<100	< 5	<2	11	< 0.02	< 2	< 2	< 0.5	< 0.5	<0.1	<1	2	<1	<0.1	<1	<1	10	5	52	1000	<0.1	<5	<5	<5
14/10/2025	7:45	L2504998001	7.3	351	30.8	1.5	77	< 1	<20	<100	< 5	5	18	0.14	3	6	< 0.5	< 0.5	<0.1	<1	6	<1	<0.1	3	<1	719	10	33	130	<0.1	<5		
21/10/2025	7:21	L2505153001																													<5	<5	
11/11/2025	8:25	L2505572001	7.3	285	28.5	1.5	76	< 1	<20	<100	< 5	5	12	0.11	2	4	< 0.5	< 0.5	<0.1	<1	2	<1	<0.1	1	<1	484	9	7	160	<0.1	<5	<5	<5
9/12/2025	9:13	L2506039001	8.1	256	30.1	1.0	93	< 1	<20	<100	< 5	<2	10	0.02	4	4	< 0.5	< 0.5	<0.1	<1	<1	<1	<0.1	<1	<1	343	4	<1	130	<0.1	<5	<5	<5
13/01/2026	8:05	L2600287001	8.1	363	30.2	1.0	84	< 1	<20	<100	< 5	3	13	< 0.02	3	5	< 0.5	< 0.5	<0.1	<1	5	<1	<0.1	<1	<1	25	<1	<1	1	<0.1	<5	<5	<5
9/02/2026	7:28	L2600821001	7.8	244	29.8	2.5	87	< 1	<20	<100	< 5	<2	10	0.02	4	4	< 0.5	< 0.5	<0.1	<1	2	<1	<0.1	<1	<1	113	7	<1	61	<0.1	<5	<5	<5
10/03/2026	7:48	L2601361001	8.5	295	25.7	1.0	86	< 1	<20	<100	< 5	4	13	0.04	6	7	< 0.5	< 0.5	<0.1	<1	2	<1	<0.1	<1	<1	241	4	4	1100	<0.1	<5	<5	<5
14/04/2026	8:15	L2602042001	7.9	419	29.4	0.5	88	< 1	<20	<100	< 5	3	16	0.02	< 2	3	< 0.5	< 0.5	<0.1	<1	7	<1	<0.1	<1	<1	29	1	<1	5	<0.1	<5	<5	<5
12/05/2026	8:20	L2602564001	8.2	321	29.0	0.5	89	< 1	<20	<100	< 5	<2	13	< 0.02	8	9	< 0.5	< 0.5	<0.1	<1	4	<1	<0.1	<1	<1	140	22	11	570	<0.1	<5	<5	<5
20/05/2026	6:56	L2602709001																								29	4	140					
9/06/2026	10:14	L2603273001	7.9	316	28.1	0.5	82	< 1	<20	<100	< 5	5	19	0.02	< 2	3	0.6	< 0.5	<0.1	<1	8	<1	<0.1	<1	<1	147	31	1	1400	<0.1	<5	<5	<5

Table A-2: Summary of commingled treated effluent sample point exceedance events

Date sampled	Exceedance reported	Parameter	Result	Limit	Contributing factors	Corrective actions
9 September 2025	19 September 2025	Faecal coliforms (measured as thermotolerant coliforms)	1000 CFU/100ml	400 CFU/100ml	<p>Non-routine sampling was undertaken to determine the source of the thermotolerant coliform exceedance within the treated wastewater stream. This non-routine sampling eliminated the WWTP as the source of the exceedance. The Utility Continuously Oily Contaminated (COC) Pit was identified as the primary location of the exceedance, with non-routine sampling returning a thermotolerant coliforms value of 380,000 CFU / 100 mL at 750-SU-054.</p> <p>Whilst there was no obvious single point source identified as the source of the exceedance within the Utility COC Pit (e.g. decaying organic matter such as an animal carcass), the volume of oil and sludge that had accumulated within the Utility COC Pit was considered sufficient to trap a layer of organic matter that could contribute to this exceedance.</p> <p>As the Utility COC Pit is utilised for the collection of wastewater from a variety of sources, specific contributing sources to the volume of oil / sludge have not been identified. Further, as the Utility COC Pit is expected to hold oily water continuously, the presence of oil / sludge within the pit is consistent with its purpose. The volume of oil / sludge was, however, considered to be a contributing factor to this exceedance event. <i>E. coli</i> and <i>Enterococci</i> concentrations were low, and below relevant trigger limits in all samples. Therefore, these results indicate it was likely that the thermotolerant coliform exceedances were not solely originating from a faecal source.</p>	No exceedance was detected during the next routine, monthly monitoring. The action undertaken to mitigate potential environmental harm was limited to engaging a waste contractor to empty the Utility COC Pit to remove any sludge/oil that may be contributing to the exceedance at this sampling location. This occurred on 25 October 2025. The routine monthly monitoring results for November were received following the clean out, with no exceedance of the thermotolerant coliform limit reported.
10 March 2026	18 March 2026	Faecal coliforms (measured as thermotolerant coliforms)	1100 CFU/100ml	400 CFU/100ml	<p>Non-routine sampling was undertaken to determine the source of the thermotolerant coliforms exceedance within the combined jetty outfall stream. This non-routine sampling eliminated the wastewater treatment plant (WWTP) as the source of the exceedance. The accidentally oil contaminated (AOC) drainage system was identified as the primary location of the exceedance, with non-routine sampling returning a thermotolerant coliform value of 1,400 CFU / 100 mL at 750SU-403 (i.e. AOC holding basin inlet). The AOC holding basin receives inputs from a number of sources; however, the second round of non-routine sampling failed to identify the individual source of the thermotolerant coliform exceedance. It is likely that conditions were favourable for supporting large concentrations of these coliforms in the AOC holding basin at the time of both the initial exceedance and the first round of non-routine sampling. The low numbers observed in the second round of non-routine sampling potentially suggest that these conditions were absent during this sampling event. Variability in thermotolerant coliform numbers between sampling events is potentially the result of rainfall pulse events associated with the wet season.</p> <p>Results from the combined jetty outfall discharge line sampling indicated that <i>E. coli</i> and <i>Enterococci</i> results were significantly lower than the thermotolerant coliform results. Therefore, these results indicate it was likely that the thermotolerant coliform exceedances were not solely originating from a faecal source. This is supported by the results of the non-routine sampling and investigation, which identified the AOC system as the primary location of the thermotolerant coliforms exceedance. Non-faecal thermotolerant coliform bacteria arising primarily from eutrophication, algal blooms and public amenity pose a lower risk to the environment than faecal thermotolerant coliform bacteria (ANZECC ARMCANZ 2000).</p>	As part of the investigation for this event, additional sampling was undertaken which demonstrated that the WWTP was not responsible for the exceedance. <i>E. coli</i> and <i>Enterococci</i> concentrations were low, and below relevant trigger limits in all samples, therefore no further actions were taken. No exceedance was detected during the following round of routine (monthly) monitoring event.

Date sampled	Exceedance reported	Parameter	Result	Limit	Contributing factors	Corrective actions
12 May 2026	19 May 2026	Faecal coliforms (measured as thermotolerant coliforms)	570 CFU/100ml	400 CFU/100ml	Non-routine sampling was undertaken to determine the source of the thermotolerant coliforms exceedance within the combined jetty outfall stream but failed to identify the source of the thermotolerant discharge limit exceedance. <i>E. coli</i> and <i>Enterococci</i> concentrations were low, and below relevant trigger limits in all samples. It is likely that conditions were favourable for supporting large concentrations of these coliforms at the time of the initial exceedance. Data suggests that thermotolerant coliforms which are non-faecal in nature are being measured at Ichthys LNG when they are not derived from ineffective treatment of effluent, nor do they pose a risk to human health or the environment.	As no exceedance was detected during additional sampling undertaken as part of the investigation, and both <i>E. coli</i> and <i>Enterococci</i> concentrations were low, and below relevant trigger limits in all samples, no further actions were taken. The limitations of using thermotolerant coliforms as a discharge limit for this program and the low-risk nature of this event to the environment and Darwin Harbour were considerations when making the decision to take no further action.
9 June 2026	17 June 2026	Faecal coliforms (measured as thermotolerant coliforms)	1400 CFU/100ml	400 CFU/100ml	The limitation of using the measurement of thermotolerant coliforms against the faecal coliform trigger limit within EPL228-05. The <i>E. coli</i> value reported by the external laboratory for the same sample was 1 CFU/100mL (below the discharge limit of 100 CFU/100mL), which is a guide that the sewage treatment plant is effectively processing domestic sewage generated at the site and is unlikely to be the source. Previous exceedances have indicated that thermotolerant coliforms which are non-faecal in nature are being measured at 750-SC-003 when they are not derived from ineffective treatment of effluent, nor do they pose a risk to human health or the environment.	No further action was undertaken due to the known limitations of using the measurement of thermotolerant coliforms against the faecal coliform trigger limit within EPL228-05.

A.2 Groundwater monitoring

Investigations were completed for all trigger exceedances. Investigations considered multiple lines of evidence, such as rainfall, seasonal factors, Ichthys LNG operational activities and any spill events, to determine if increasing trends in groundwater analytes were likely to be as a result of Ichthys LNG.

Investigations completed following the October 2025 and April 2026 monitoring events concluded that the reported trigger exceedances were not as a result of Ichthys LNG operations and were likely natural (e.g. represent seasonal trends and natural variability). Therefore, no further evaluation or management response was required.

As per the LDMP, two groundwater surveys were completed during the reporting period, in October 2025 (Survey 16) and April 2026 (Survey 17). A high-level summary of groundwater results is provided in the following sections, with data collected during the reporting period provided in Table A-4. To date, groundwater monitoring during the operations phase of Ichthys LNG shows that there has been no notable change in groundwater quality that is attributable to Ichthys LNG operations.

Survey 16

Forty-one exceedances against benchmark levels were recorded in groundwater monitoring survey 16 in October 2025. Exceedances include 16 for nutrients, 18 for dissolved metals and 7 for pH. No exceedances were recorded for hydrocarbons, mercury or physicochemical parameters. This is the same number of exceedances recorded during the fourteenth groundwater monitoring survey undertaken during October 2024, though a reduction in the number of nutrient and dissolved metal related exceedances.

All exceedances have been compared to data recorded during the dry season months of May to October between May 2016 and October 2025.

Visual assessment of time plotted data indicates that several of the nutrient analyte exceedances represent short-term spikes, potentially related to seasonal environmental variables, rather than increasing trends. Visual assessment of time plotted data has indicated the following trends for nutrient exceedances:

- Ammonia: Increasing trends at VWP341, BPGW40, BPGW41 and BPGW28.
- Total nitrogen: Increasing trends, albeit fluctuating at BPGW40.
- FRP: Potential increasing trend at BPGW01.

Visual assessment of time plotted data for metal exceedances has indicated the following trends:

- Cobalt: Increasing trend at VWP341
- Manganese: Increasing trend at VWP341
- Zinc: Increasing trend at VWP341.

The following historical maximum values were recorded during the October 2025 monitoring survey:

- Ammonia at BPGW28 (1,550 µg/L)
- FRP at BPGW01 (25 µg/L)
- Arsenic at VWP328 (771 µg/L)

Survey 17

Thirty-three exceedances against both the trigger and background concentrations were recorded in the seventeenth groundwater monitoring survey in April 2026. Exceedances include 10 for nutrients, 20 for dissolved metals and 3 for pH. No exceedances were recorded for hydrocarbons, mercury or physicochemical parameters. This is a decrease from the 38 exceedances recorded during the fifteenth groundwater monitoring survey undertaken during April 2025.

Repeated exceedances were plotted on time series graph to compare to pre-construction and construction data and discern trends in the data.

A review of the 10 nutrient exceedances from April 2026 monitoring survey found that 9 of the exceedances were consecutive for at least three surveys. Trend analysis completed by the monitoring contractor indicates:

- Ammonia:
 - Increasing trends for ammonia at BPGW40
 - Increasing trends for ammonia has stabilised at BPGW18, BPGW41 and VWP341
 - Fluctuating trends for ammonia at BPGW28
- Total nitrogen: Fluctuating long-term trend for total nitrogen at BPGW40, BPGW41 and VWP341

A review of the 20 metal exceedances from April 2026 monitoring survey found that 11 of the exceedances were consecutive for at least three surveys. Trend analysis of the 20 metals exceedances completed by the monitoring contractor indicates that:

- Arsenic: Increasing albeit fluctuating long-term trend at BPGW09 and VWP328. BPGW40 above background though stable.
- Cobalt: Stable but fluctuating at BPGW08A, BPGW40 and VWP328; and increasing trend at BPGW07 and VWP341.
- Manganese: Fluctuating and increasing trend at VWP341.
- Nickel: increasing albeit fluctuating at BPGW07.
- Zinc: Fluctuations at BPGW07, fluctuating and increasing VWP341.

The following historical maximum values were recorded during the April 2026 monitoring survey:

- Ammonia at BPGW26 (377 µg/L)
- Cobalt at VWP341 (196 µg/L)
- Manganese at BPGW07 (1,830 µg/L) and BPGW09 (765 µg/L)

Trigger assessment outcomes

In accordance with the receiving environment adaptive management process outlined in Section 7.4 of the LDMP, groundwater trigger exceedances were investigated. A summary of the number of trigger exceedances by survey is provided in Table A-3.

Table A-3: Summary of groundwater trigger exceedances

Survey	Date	Physio-chemical	Nutrients	Metals
Survey 16	October 2025	7	16	18
Survey 17	April 2026	3	10	20

Table A-4: 2025-2026 LDMP Monitoring Period Groundwater Monitoring Results

Monitoring Round	LocCode	Sampled Date-Time	Ammonia as N	Nitrogen (Total)	Oxides of Nitrogen	Phosphate total (P)	Reactive Phosphorus as P	TSS	TDS	Aluminium (Filtered)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (hexavalent) (Filtered)	Chromium (Trivalent) (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Lead (Filtered)	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Silver (Filtered)	Vanadium (Filtered)	Zinc (Filtered)	Benzene	Ethylbenzene	Toluene	Xylene Total	TRH C6-C40	Biological oxygen demand (BOD)	E. coli	Dissolved Oxygen (%)	EC (field)	pH (Field)	Redox	Temp
Units	n/a	n/a	ug/l	ug/l																										MPN/100mL	% sat	uS/ cm	pH_Units	mV	°C
Groundwater Survey 16	BPGW01	27/10/2025	77	110	8	27	25	-	1950	294	3.4	3	<1	<1	34.9	2.1	7	1130	<0.04	24.6	0.1	<0.2	149	<1	<2	<2	<2	<100	-	-	0.7	4,285	4.57	-378.5	30.8
	BPGW07	27/10/2025	470	790	10	62	<10	-	66,000	7	7.1	0.4	<1	<1	27.6	<1	0.9	1190	<0.04	30.5	<0.1	<0.5	65	<1	<2	<2	<2	<100	-	-	1.5	104,768	5.37	-336.2	32
	BPGW08A	27/10/2025	55	130	<20	54	30	-	8,820	50	14.3	0.4	<1	<1	55.4	<0.5	0.8	5070	<0.04	30.2	<0.1	0.3	43	<1	<2	<2	<2	<100	-	-	0.1	17,666	4.55	-69.8	32
	BPGW09	27/10/2025	418	730	<20	28	7	-	80,300	<5	7	<0.2	<1	<1	2.8	<1	<0.2	331	<0.04	2.2	<0.1	<0.5	<5	<1	<2	<2	<2	<100	-	-	0.1	122,401	5.88	-377.9	31.1
	BPGW18	30/10/2025	637	1310	<20	45	16	-	49,300	<5	10.7	<0.2	<1	<1	<0.2	<1	<0.2	85.1	<0.04	<0.5	0.1	0.8	<5	<1	<2	<2	<2	<100	-	-	2	68,813	6.13	-52.3	29.6
	BPGW19A	28/10/2025	1440	1950	<2	38	2	-	49,600	23	2.3	<0.05	<1	<1	<0.1	1.3	<0.1	41.6	<0.04	<0.5	<0.1	4	<1	<1	<2	<2	<2	<100	<1	<1	0.8	72,077	5.95	-127.6	32.1
	BPGW20	30/10/2025	162	180	<20	11	7	-	634	<5	2.6	<0.05	<1	<1	2.4	<0.5	<0.1	42.7	<0.04	1.4	<0.1	<0.2	6	<1	<2	<2	<2	<100	-	-	0.3	1,352	5.23	59	32.8
	BPGW26	27/10/2025	247	300	<20	16	4	-	6100	<5	4.7	<0.05	<1	<1	9.1	<0.5	0.1	3000	<0.04	1.3	<0.1	<0.2	4	<1	<2	<2	<2	<100	-	-	0.1	13,362	5.22	90.5	32.1
	BPGW27A	28/10/2025	261	320	<20	<5	3	-	1330	<5	1.2	<0.05	<1	<1	2.1	<0.5	<0.1	28.4	<0.04	<0.5	<0.1	<0.2	4	<1	<2	<2	<2	<100	<1	<1	0.7	2,528	5.05	78.7	33.9
	BPGW28	28/10/2025	1550	2220	<2	105	<1	-	63,500	<5	1.6	<0.05	<1	<1	<0.1	2.1	<0.1	166	<0.04	<0.5	<0.1	0.5	2	<1	<2	<2	<2	<100	-	-	1.1	87,322	6.49	-80.6	31.5
	BPGW38A	27/10/2025	18	100	16	14	<1	-	644	<5	0.6	0.48	<1	<1	0.4	<0.5	<0.1	16	<0.04	7	<0.1	0.2	6	<1	<2	<2	<2	<100	-	-	3.4	1,113	5.58	94.7	32.7
	BPGW40	28/10/2025	444	640	<20	13	<10	-	3,260	<5	8.2	<0.05	<1	<1	2.3	<0.5	<0.1	215	<0.04	<0.5	<0.1	<0.2	3	<1	<2	<2	<2	<100	-	-	0.7	5,823	5.94	-57.8	31.1
	BPGW41	28/10/2025	695	960	<2	27	12	-	11300	<5	5.1	<0.05	<1	<1	<0.1	<0.5	<0.1	16.7	<0.04	<0.5	<0.1	0.4	12	<1	<2	<2	<2	<100	-	-	0.1	19,781	6.53	158.6	32
	VWP328	28/10/2025	296	750	<20	14	1	-	72,300	<5	771	0.08	<1	<1	23.5	5.7	0.5	344	<0.04	3.4	<0.1	0.3	17	<1	<2	<2	<2	<100	-	-	1.5	96,329	5.78	-11.4	30.5
	VWP341	27/10/2025	570	640	<20	11	5	-	1820	12	5.6	<0.05	<1	<1	152	<0.5	0.1	2610	<0.04	13.8	<0.1	0.3	129	<1	<2	<2	<2	<100	-	-	0.7	4,192	5.02	45.8	33.4
Groundwater Survey 17	BPGW01	30/04/2026	55	70	<20	18	<1	-	69	36	6.9	<0.05	<1	<1	3.3	<0.5	0.2	330	<0.04	0.5	<0.1	<0.2	5	<1	<2	<2	<2	<100	-	-	20.7	132.3	5.23	53.3	29.4
	BPGW07	30/04/2026	346	730	<20	21	9	-	70,000	11	5.9	0.7	<1	<10	36.5	1	2.1	1830	<0.04	39.8	<0.1	<0.5	80	<1	<2	<2	<2	<100	-	-	40.9	97,573	5.44	83	30.5
	BPGW08A	29/04/2026	35	110	<20	26	2	-	3,090	<5	28.5	<0.05	<1	<1	38.1	<0.5	<0.1	2790	<0.04	17.1	<0.1	<0.2	10	<1	<2	<2	<2	<100	-	-	10.8	5,781	5.55	-26.6	31.4
	BPGW09	30/04/2026	197	570	<20	16	<1	-	106,000	<5	84.4	<0.2	<1	<10	6.6	<1	1.7	765	<0.04	2.4	<0.1	<0.5	6	<1	<2	<2	<2	<100	-	-	5.2	136,654	5.92	-71.1	30.3
	BPGW18	29/04/2026	605	900	14	60	<1	-	47,600	<5	10.8	<0.2	<1	<10	<0.2	<1	<0.2	83.1	<0.04	<0.5	<0.1	0.6	<5	<1	<2	<2	<2	<100	-	-	9.7	71,020	6.12	-97.6	29.5
	BPGW19A	28/04/2026	1230	1870	<20	39	4	-	53,000	9	8.9	0.08	2	<10	0.1	1.7	<0.1	44.5	<0.04	3.4	<0.1	3.1	18	<1	<2	<2	<2	<100	1.3	<1	8.8	79,153	6.1	-102.5	30.8
	BPGW20	29/04/2026	103	140	<20	20	3	-	896	<5	2.8	<0.05	<1	<1	3	<0.5	<0.1	50.6	<0.04	1.7	<0.1	<0.2	9	<1	<2	<2	<2	<100	-	-	11.8	2204	5.36	16	32.2
	BPGW26	28/04/2026	377	440	<20	20	2	-	5,040	<5	5.2	<0.05	<1	<1	10.6	<0.5	<0.1	2830	<0.04	2	<0.1	<0.2	5	<1	<2	<2	<2	<100	-	-	18.7	11,173	5.36	63.8	32.1

Monitoring Round	LocCode	Sampled Date-Time	Ammonia as N	Nitrogen (Total)	Oxides of Nitrogen	Phosphate total (P)	Reactive Phosphorus as P	TSS	TDS	Aluminium (Filtered)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (hexavalent) (Filtered)	Chromium (Trivalent) (Filtered)	Cobalt (Filtered)	Copper (Filtered)	Lead (Filtered)	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Silver (Filtered)	Vanadium (Filtered)	Zinc (Filtered)	Benzene	Ethylbenzene	Toluene	Xylene Total	TRH C6-C40	Biological oxygen demand (BOD)	E. coli	Dissolved Oxygen (%)	EC (field)	pH (Field)	Redox	Temp
	BPGW27A	28/04/2026	100	150	<20	9	<1	-	954	6	0.7	<0.05	<1	<1	1.6	<0.5	<0.1	19.4	<0.04	1	<0.1	<0.2	4	<1	<2	<2	<2	<100	<1	<1	12.1	2,051	5.21	65.2	34.2
	BPGW28	29/04/2026	957	1040	<20	41	<1	-	71,100	<5	1.8	<0.2	<1	<10	<0.2	<1	<0.2	205	<0.04	<0.5	<0.1	<0.5	<5	<1	<2	<2	<2	<100	-	-	3.5	96,858	6.43	-112.8	30.6
	BPGW38A	28/04/2026	12	120	81	11	1	-	285	16	<0.2	0.06	<1	<1	<0.1	<0.5	<0.1	1.6	<0.04	0.8	<0.1	0.3	4	<1	<2	<2	<2	<100	-	-	29.9	606	6.17	115.3	31.6
	BPGW40	28/04/2026	460	520	<20	18	<1	-	1,860	<5	7.1	<0.05	<1	<1	2.1	<0.5	<0.1	140	<0.04	1.1	<0.1	<0.2	2	<1	<2	<2	<2	<100	-	-	48.8	3,704	6.23	-36.6	30.4
	BPGW41	29/04/2026	728	740	14	10	<1	-	11,700	<5	4.8	<0.05	<1	<1	<0.1	<0.5	<0.1	16.2	<0.04	<0.5	<0.1	0.4	4	<1	<2	<2	<2	<100	-	-	1.2	20,250	6.51	-125.1	30.2
	VWP328	29/04/2026	265	680	<20	<25	<1	-	73,600	<5	569	<0.2	<1	<10	22.6	<1	0.3	404	<0.04	2.9	<0.1	<0.5	7	<1	<2	<2	<2	<100	-	-	19.2	102,434	5.79	-46.9	30.4
	VWP341	28/04/2026	525	660	<20	22	<1	-	1,660	13	6.3	<0.05	<1	<1	196	<0.5	0.1	3510	<0.04	18.3	<0.1	0.3	168	<1	<2	<2	<2	<100	-	-	26.7	3,473	5.21	-12.6	32.6

A.3 Harbour sediment quality monitoring

A biennial harbour sediment quality monitoring survey was completed on 3-4 June 2026.

Table A-5 presents the range of laboratory results of sediment samples, of each analyte for both impact and control sites. These results are compared to trigger values and background levels. Trigger values have been derived from ANZG (2018), while background levels for Darwin Harbour sediments defined as 80th percentile of control site values in accordance with the process defined in NAGD (Commonwealth of Australia 2009). The full suite of metals and physicochemical results are provided in Table A-6.

All samples tested for hydrocarbons (total recoverable hydrocarbons (TRHs), total petroleum hydrocarbons (TPHs) and benzene, toluene, ethylbenzene and xylene (BTEX)) recorded concentrations below the limit of reporting (LOR).

Metals concentrations were generally low or below their relevant ANZG (2018) SQGVs. Trigger exceedances were recorded for arsenic and chromium at site I14 during the June 2026 harbour sediment monitoring event. Mean and median metals concentrations reported at impact sites were generally marginally higher than results reported in previous years. Mean metals concentrations reported at control sites were also higher than results reported in previous monitoring events.

Overall, there were no notable changes to harbour sediment quality associated with Ichthys LNG activities. As such, discharges have not adversely affected the declared beneficial users or harbour sediment objectives for Darwin Harbour. The next biennial monitoring event is scheduled to be undertaken in 2028.

Table A-5: Harbour sediment quality survey results summary

Parameter	Trigger value (mg/kg)	Background level mg/kg	Results (range)	
			Impact sites (mg/kg)	Control sites (mg/kg)
Aluminium	-	10960	4,700 – 21,000	6,800 – 12,000
Antimony	2	<0.5	<0.5* - 1.2	<0.5*
Arsenic	20	18.8	10 - 33	14 - 20
Cadmium	1.5	<0.1	<0.1*	<0.1*
Chromium	80	35	15 - 130	23 - 38
Copper	65	6.02	2.2 - 11	4.1 – 6.5
Lead	50	8.5	5 - 15	6.5 – 9
Mercury	0.15	0.01	<0.1* - 0.02	0.1
Nickel	21	8.22	4.1 – 14	6.3 – 8.7
Zinc	200	21.2	10 - 36	14 - 23
TRH C10-C36 (total)	280	-	<50*	<50*
TRH C10-C40 (total)	280	-	<100*	<100*
Benzene	-	-	<0.1*	<0.1*

Parameter	Trigger value (mg/kg)	Background level mg/kg	Results (range)	
			Impact sites (mg/kg)	Control sites (mg/kg)
Toluene	-	-	<0.1*	<0.1*
Ethybenzene	-	-	<0.1*	<0.1*
m&p Xylene	-	-	<0.2*	<0.2*
o-Xylene	-	-	<0.1*	<0.1*
Total -Xylenes	-	-	<0.3*	<0.3*
Napthalene (VOC)	-	-	<0.5*	<0.5*
Moisture	-	-	28% - 53%	34% - 38%
total organic carbon (TOC)	-	-	<1,000-76,000	2,000-19,000

* All results for analyte below LOR

A.3.1 Trigger assessment outcomes

Arsenic and chromium concentrations exceeded the ANZG (2018) SQGV and background concentrations at site I14.

Arsenic levels at I14 aligned with those documented in earlier studies including the harbour-wide sediment sampling survey by Munksgaard et al. (2013), and Fortune (2006), which attributed elevated arsenic concentrations to natural weathering of arsenic-rich coastal substrata rather than anthropogenic influence.

Chromium concentrations at site I14 were also elevated relative to those reported in the harbour-wide sediment survey undertaken by Munksgaard et al. (2013), which recorded a maximum chromium concentration of 95.1 mg/kg across 247 intertidal sediment samples. However, the concentration measured at I14 was comparable to results reported by URS (2009) in the vicinity of the East Arm Wharf, where a limited number of samples reported chromium concentrations exceeding the ANZG (2018) SQGV. The chromium result reported at I14 was normalised in accordance with Munksgaard (2013), and the exceedance assessment process identified in the Monitoring Plan (INPEX 2021). The normalised chromium concentration derived for sample I14 was still found to exceed ANZG (2018) SQGVs and background concentrations of chromium in Darwin Harbour sediments, representing an exceedance.

The elevated chromium concentration observed at I14 appears to represent a highly localised area of enrichment or the presence of an isolated source of contamination within the sample, rather than evidence of widespread chromium contamination across the study area. The abnormally high concentration reported in this sample is unlikely to represent influence from Ichthys LNG, given the site is located around 400m from the discharge with no increased levels at sites closer to the discharge. As described by the environmental consultant (O2 Marine, 2026), the result could also be attributed to cross contamination during field survey or handling within the laboratory. This is not confirmed by the field or laboratory QA/QC assessment though may explain the elevated result.

The next round of monitoring will occur in the 2027/2028 Annual Compliance Reporting period.

Table A-6: Harbour sediment quality survey metal and physio-chemical results

Parameter	Aluminium	Antimony	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Moisture content (dried @ 103 oC)	TOC
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg
LOR	20	0.5	1	0.1	1	1	1	0.01	1	1	1	1000
Trigger Value	-	2	20	1.5	80	65	50	0.15	21	200	-	-
I01_030626	21000	< 0.5	12	< 0.1	45	11	11	< 0.01	13	< 0.1	49	23000
I02_030626	21000	1.1	15	< 0.1	46	9.6	12	< 0.01	14	< 0.1	53	28000
I03_030626	15000	< 0.5	12	< 0.1	35	7.3	10	< 0.01	11	< 0.1	48	5000
I04_030626	19000	< 0.5	10	< 0.1	42	8.6	12	0.02	13	< 0.1	51	17000
I05_030626	18000	< 0.5	12	< 0.1	39	8.8	11	0.01	13	< 0.1	52	3000
I06_030626	20000	< 0.5	13	< 0.1	44	9.5	12	0.02	14	< 0.1	52	4000
I07_030626	19000	< 0.5	12	< 0.1	42	9.1	11	0.01	13	< 0.1	49	41000
I08_030626	17000	< 0.5	12	< 0.1	37	8.1	11	< 0.01	12	< 0.1	50	<1000
I09_030626	15000	0.6	12	< 0.1	35	7.8	10	0.02	11	< 0.1	47	14000
I10_030626	14000	< 0.5	11	< 0.1	36	7.7	11	< 0.01	11	< 0.1	51	23000
I11_030626	12000	< 0.5	11	< 0.1	33	7.2	10	< 0.01	10	< 0.1	48	23000
I12_030626	16000	< 0.5	11	< 0.1	40	8	11	< 0.01	12	< 0.1	50	24000

Parameter	Aluminium	Antimony	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Moisture content (dried @ 103 oC)	TOC
I13_030626	12000	< 0.5	15	< 0.1	34	10	9.8	< 0.01	14	< 0.1	48	26000
I14_030626	13000	1.2	33	< 0.1	130	7.5	15	< 0.01	11	< 0.1	37	14000
I15_030626	15000	< 0.5	14	< 0.1	35	6.9	9.9	< 0.01	10	< 0.1	51	76000
I16_040626	4700	< 0.5	16	< 0.1	15	2.2	5	< 0.01	4.1	< 0.1	28	13000
Control_1_040626	6800	< 0.5	20	< 0.1	23	4.1	6.5	0.01	6.3	< 0.1	34	2000
Control_2_040626	12000	< 0.5	14	< 0.1	38	6.5	9	0.01	8.7	< 0.1	38	19000

A.4 Mangrove health and intertidal sediments

A biennial mangrove health and intertidal sediment monitoring survey was undertaken in April 2026 to detect potential adverse changes in mangrove community health as an indirect result of Ichthys LNG operations. To date, mangrove health and intertidal sediment monitoring during the operations phase has shown there has been no demonstrable change to mangrove health or intertidal sediment attributable to Ichthys LNG operations.

A.4.1 Canopy Cover

Canopy cover can be defined as the per cent forest area occupied by the vertical projection of tree crowns (Paletto & Tossi, 2009). This parameter is considered a useful indicator of environmental stress as leaf defoliation and leaf growth are sensitive to a wide range of environmental indicators. Canopy cover across all sites has remained relatively stable over time (Figure A-2). Forest canopy is one of the key determinants of microhabitat within the forest, impacting vegetation structure and wildlife habitat (AECOM, 2026). Canopy cover data recorded during Survey 6 was similar at impact sites ($89.29\% \pm 1.61$) than at control sites (88.4 ± 1.82).

Canopy cover results were consistent with values recorded during Survey 5 undertaken in 2024. Canopy cover values were higher than baseline values (2012–2013), construction phase (2013–2018) and data recorded during April 2021 (Survey 3). Variations in the mean canopy density between Survey 6 (2026) and Survey 5 (2024) at individual sites recorded reductions of ~ 1 – 20.9% and increases of ~ 3.4 – 9.4% . This extent of variation, experienced at both impact and control locations, is expected to reflect natural variability and the precision of the sampling technique. Sites BPMC09 and CSMC01-TC recorded canopy cover values notably higher than baseline data, with increases of 20.5% and 29.8% , respectively.

All sites were classified as healthy in 2024 with no signs of deterioration or abnormal stress based on indices of leaf colour, regeneration (i.e. seedlings and saplings), visible vertebrate fauna and infaunal bioturbation.

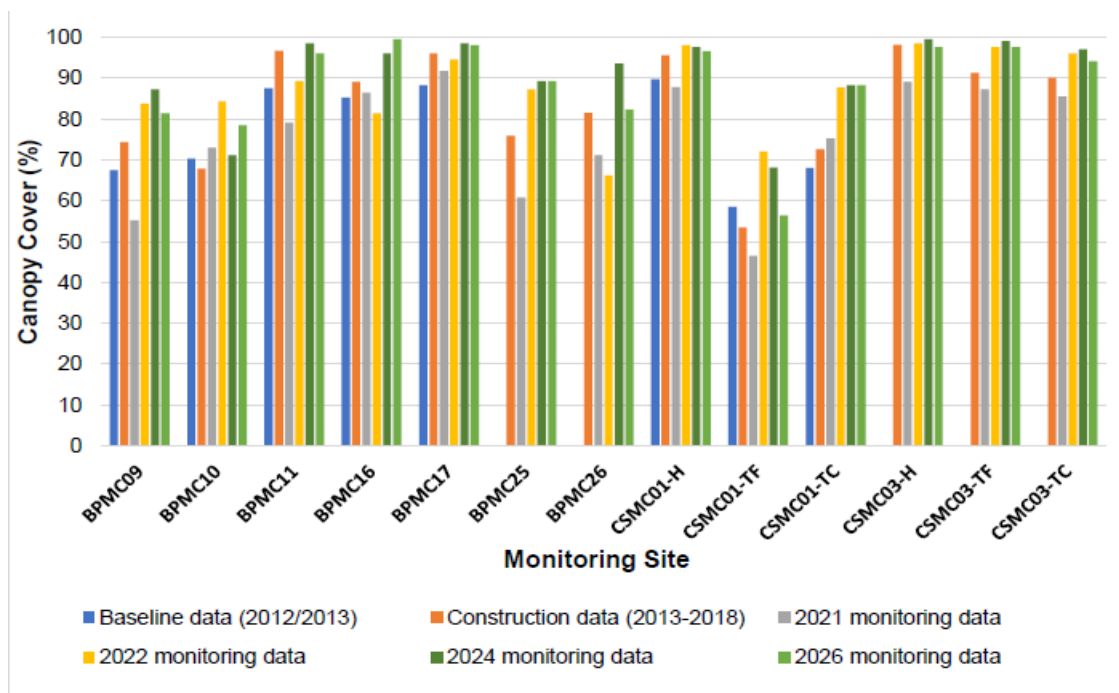


Figure A-2: Mangrove canopy cover

A.4.2 Sediment monitoring

In-situ sediment measurements

In-situ measurements of pH and redox are displayed below in Table A-7. In-situ measurements for pH at impact sites ranged from 7.1 to 8.05, with a mean value of 7.48. Measurements of pH at control sites ranged from 7.12 to 8.01 at control sites, with a mean value of 7.58. The range of pH values recorded reflects the conditions experienced by the surface sediments which are well oxygenated and regularly flushed by tidal waters. The results indicate that mangrove sediments at both impact and control sites are slightly alkaline. These values fall within the typical range from previous Ichthys LNG monitoring reported for mangrove sediment analysis.

In-situ measurements for redox potential at impact sites ranged from -22.6 mV to 95.1 mV, with a mean of 58.43. Redox potential at control sites ranged from 40.5 mV to 69.1 mV, with a mean of 56.82 mV. The predominantly positive ORP values indicate that mangrove sediments at monitoring sites in the top 5 cm are oxidising.

Table A-7: Mangrove sediment in situ monitoring results

Location	Date	pH	ORP (mV) (redox potential)
Impact sites			
BPMC09	16/04/2026	7.53	60.7
BPMC10	15/04/2026	7.88	58.9
BPMC11	15/04/2026	7.21	80.3
BPMC16	15/04/2026	7.10	56.7
BPMC17	15/04/2026	8.05	-22.6
BPMC25	16/04/2026	7.45	79.9
BPMC26	15/04/2026	7.16	95.1
Mean		7.48	58.43
Control sites			
CSMC01 - H	19/04/2026	8.00	40.5
CSMC01 -TF	19/04/2026	7.12	60.5
CSMC01 -TC	19/04/2026	7.34	58.3
CSMC03 - H	18/04/2026	8.01	46.3
CSMC03 -TF	18/04/2026	7.40	69.1
CSMC03 -TC	18/04/2026	7.62	66.2
Mean		7.58	56.82

Sediment chemistry

A summary of the mangrove sediment chemistry results is provided in Table A-8 and Table A-9. Elevated arsenic concentrations are consistent with those recorded from the broader Darwin Harbour region and from previous monitoring undertaken during the baseline and construction phases. Elevated concentrations of arsenic in Darwin Harbour sediments have historically been attributed to local geological influence rather than anthropogenic sources (Padovan, 2003; Fortune, 2006).

The four exceedances for arsenic across two impact and two control sites represent an increase from the single exceedance recorded at a control site during the 2024 mangrove sediment sampling event, Survey.5 (AECOM, 2024), though are consistent with arsenic exceedances recorded at the same impact and control sites during the 2022 mangrove sediment sampling event, Survey 4 (AECOM, 2022). Exceedances for arsenic have periodically been recorded at a range of impact and control sites during the baseline and construction monitoring phases (URS 2013a, 2013b).

A single chromium exceedance was recorded at an impact site during the survey. Although no chromium exceedances were recorded during Survey 5 in 2024, there were two exceedances recorded during Survey 4, one at the same impact site as identified in 2026. In addition, the chromium exceedance was within historical ranges for this site.

Limits of reporting in sediment samples were sufficiently low in all samples for comparison to benchmark levels.

Table A-8: Summary of inorganic mangrove sediment chemistry

Analyte	Aluminium	Antimony	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Moisture Content	TOC
Unit	mg/kg										%	%
LOR	10	1	2*	0.1	1	1	1	0.02	1	5	1	0.1
Trigger Value	-	2	20	1.5	80	65	50	0.15	21	200	-	-
BPMC09	4,000	<1	7.5	<0.1	16	2.7	5.2	0.04	4.0	19	32	1.3
BPMC10	2,800	<1	7.4	<0.1	11	3.1	4.8	<0.02	4.7	20	37	2.3
BPMC11	1,000	<1	3.6	<0.1	8.2	<1	1.8	<0.02	<1	<5	16	0.7
BPMC16	3,300	<1	16	<0.1	47	1.9	3.9	<0.02	1.6	13	16	0.7
BPMC17	6,300	1.2	27	<0.1	96	4.8	6.9	<0.02	3.0	24	28	1.8
BPMC25	9,400	<1	33	<0.1	36	7.0	13	0.04	13	92	65	4.8
BPMC26	3,400	<1	12	<0.1	17	3.1	5.3	<0.02	4.6	28	48	2.9
CSMC01-TC	2,300	<1	2.1	<0.1	9.9	1.2	1.3	<0.02	1.6	7.0	50	3.7
CSMC01-H	5,100	<1	14	<0.1	21	2.9	7.5	0.02	5.6	16	58	7.7
CSMC01-TF	1,800	<1	5.0	<0.1	13	<1	2.2	<0.02	1.3	8.0	24	0.6
CSMC03-TC	9,000	1.0	3.2	0.1	34	1.6	11	0.06	11	<5	23	1.4
CSMC03-H	5,800	<1	24	<0.1	36	3.7	9.2	0.03	7.6	22	45	3
CSMC03-TF	15,000	<1	39	<0.1	47	6.6	15	<0.02	11	38	52	4.9

*Bold value indicates trigger exceedance.

Table A-9: Summary of organic mangrove sediment chemistry (mg/kg)

Site	TPH C10-C36 (sum of total)	TRH >C10-C40 (sum of total)
Guideline value	280	280
Background	n/a	n/a
BPMC09	<100	<100
BPMC10	<100	<100
BPMC11	<100	<100
BPMC16	<100	<100
BPMC17	<100	<100
BPMC25	<100	<100
BPMC26	<100	<100
CSMC01-HM	<100	<100
CSMC01-TF	<100	<100
CSMC01-TC	<100	<100
CSMC03-HM	<100	<100
CSMC03-TF	<100	<100
CSMC03-TC	<100	<100

A.4.3 Trigger assessment outcomes

There were no trigger exceedances for the 2026 mangrove health and intertidal sediment survey attributable to Ichthys LNG operations. Arsenic exceedances were recorded at both impact and control sites, therefore the exceedances are unlikely to be due to LNG operations. The single chromium exceedance was within historical ranges for this site.

No further rationalisation is proposed for Mangrove Health and Intertidal Sediments. The next round of monitoring will occur in the 2027/2028 Annual Compliance Reporting period.