

**AMUNGEE NW DELINEATION PROGRAM EP 98
(ORI11-3)
Annual Environment Performance Report (AEPR)**

Tamboran B2 Pty Ltd

Document Details

Document title	Amungee NW Delineation Program EP 98 (ORI11-3) Annual Environment Performance Report
EMP(s) covered	Amungee NW Delineation Program EP 98 EMP (ORI11-3)
Permit area	EP 98
Interest holder details	Tamboran B2 Pty Ltd ABN 42 105 431 525
Operator details	Tamboran Resources Ltd 110-112 The Corso Manly NSW 2095
Approved by	Matt Kernke: Environment and Approvals Manager
Date approved	14 February 2024

Version History

Rev	Date	Reason for issue	Reviewer	Approver
0	14 February 2024	Issued for Approval	LP	MK

Signature and certification


I hereby declare that the information provided in this annual environment performance report and accompanying documents is to the best of my/our knowledge, true and correct.	
Signature	
Name	Matt Kernke
Position	Environment and Approvals Manager
Date	14 February 2024

Table of contents

1.	INTRODUCTION	4
1.1	Acronyms and abbreviations	4
1.2	Background	5
1.3	Contents of performance report	6
1.4	Assessment of compliance	6
1.5	Evidence of compliance	6
2.	DEMONSTRATION OF COMPLIANCE	7
2.1	Ministerial condition compliance	7
2.2	Environmental outcomes and performance standards	14
2.3	Mandatory reporting requirements	22
3.	Summary of Compliance	29
3.1	Overview of compliance	29
3.2	Overview of items found not compliant	29
3.2.1	Ministerial approval conditions	29
3.2.2	Environmental performance standards	29
3.2.3	Regulatory reporting	29
3.3	Application of Lessons Learned Across Tamboran’s Onshore Interests	29

Table of Figures

Figure 1	Location of the proposed 4 well sites in the Amungee Delineation Area in relation to the existing Amungee NW site	5
----------	---	---

List of Tables

Table 1	Summary of acronyms and abbreviations	4
Table 2	Compliance descriptors	6
Table 3	Ministerial condition summary table	7
Table 4	Environmental outcome and performance standard compliance summary	14
Table 5	Summary of mandatory reporting requirements	22
Table 6	Amungee Delineation Program EP 98 EMP (ORI11-3) compliance summary	29

1. INTRODUCTION

The Northern Territory (NT) Petroleum (Environment) Regulations 2016 (the Regulations) include a requirement¹ for the interest holder to provide a report to the Minister on an annual basis that outlines the environmental performance of regulated activities. The Annual Environment Performance Report (AEPR) must include sufficient information to allow the Minister to assess whether the interest holder has met the environmental outcomes and environmental performance standards included in the approved Environment Management Plan (EMP). The report is to consider information required to be recorded, monitored or reported under the Regulations and any other law in force in the NT related to conduct of the regulated activity.

This AEPR covers the regulated activities approved under the *Amungee NW Delineation Program EP 98 EMP (ORI11-3)*, approved 14 November 2022.

The AEPR covers the reporting period of the 15 November 2022 – 14 November 2023, as reported by Tamboran B2 Pty Ltd (Tamboran).

1.1 Acronyms and abbreviations

Table 1 Summary of acronyms and abbreviations

Acronym	Definition
AAPA	Aboriginal Areas Protection Authority
AEPR	Annual Environment Performance Report
Code	Code of Practice: Onshore Petroleum Activities in the Northern Territory
DEPWS	Department of Environment, Parks and Water Security
DITT	Department of Industry, Tourism and Trade
EMP	Environment management plan
ha	hectare
NT	Northern Territory
Regulations	Petroleum (Environment) Regulations 2016

¹ Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11.

1.2 Background

The regulated activities that have been assessed under this AEPR are those covered under the *Beetaloo Sub-Basin Multi-Well Drilling, Stimulation and Well Testing Program EP 98, EP 76 EMP (ORI10.3)*, approved 19 May 2022 during the reporting period 15 November 2022 – 14 November 2023.

There have been on regulated activities performed on Amungee EP 98 under this EMP during the reporting period.

The location of the regulated activities is provided in Figure 1.

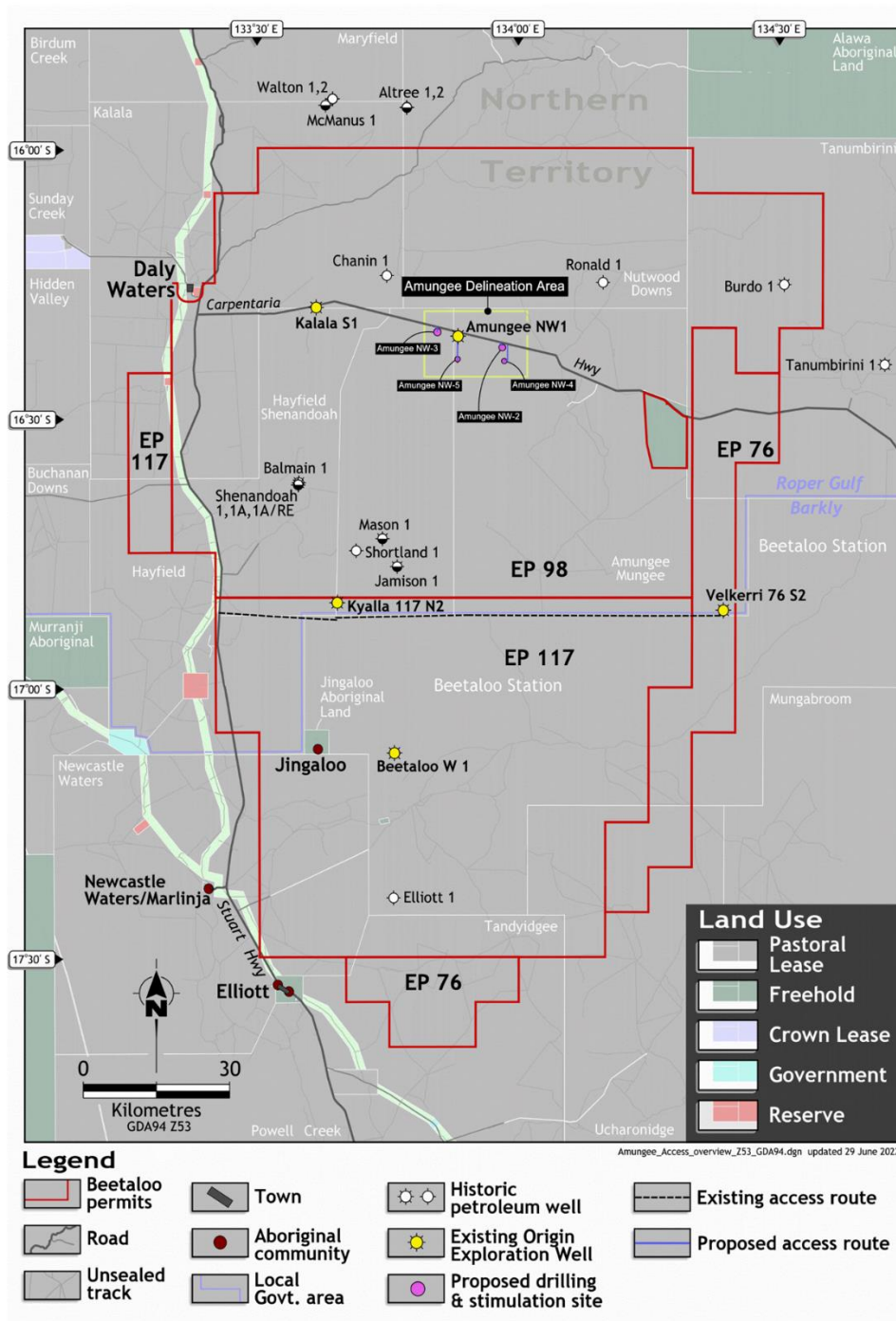


Figure 1 Location of the proposed 4 well sites in the Amungee Delineation Area in relation to the existing Amungee NW site

1.3 Contents of performance report

This AEPR describes the environmental performance of the interest holder by evaluation of the following:

1. Compliance with Ministerial approval conditions, for the EMP.
2. Compliance with each environmental outcome and environmental performance standard within the approved EMP.
3. Compliance with reporting requirements in accordance with the Code and Regulations.
4. All recordable and reportable incidents, including root cause analysis and related corrective actions to prevent re-occurrence.
5. Findings of all regulatory inspections and audits and related actions to address any findings.

1.4 Assessment of compliance

Table 2 shows the compliance status indicators used in this AEPR which have been defined by the Department of Environment, Parks and Water Security (DEPWS).

Table 2 Compliance descriptors

Indicator	Description
Compliant	Compliant with requirement for entire 12-month reporting period
Not compliant	Interest holder did not comply with the requirement during the reporting period
Not applicable	Requirement not applicable during the reporting period

1.5 Evidence of compliance

The following sources of evidence are used to demonstrate compliance:

1. Internal monitoring of compliance by the interest holder.
2. Outcomes from regulatory inspection/s conducted by the DEPWS, Petroleum Operations.
3. Recordable and reportable incident reports submitted to DEPWS Petroleum Operations.
4. Reports provided to DEPWS, DITT and other government agencies.

2. DEMONSTRATION OF COMPLIANCE

2.1 Ministerial condition compliance

Table 3 demonstrates Tamboran’s compliance with Ministerial EMP approval conditions.

Table 3 Ministerial condition summary table

No	Ministerial condition	Compliance Status	Evidence
1	<p>The interest holder must submit to the Department of Environment, Parks and Water Security (DEPWS), via Onshoregas.DEPWS@nt.gov.au the following:</p> <p>i. Notification of the commencement of hydraulic fracturing activities prior to commencement.</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
	<p>ii. An updated timetable for the regulated activity that is to be provided on the last day of each quarter (being 31 March, 30 June, 30 September and 31 December each year), that identifies activities completed in the current quarter and:</p> <p>regulated activities in the next quarter, including duration;</p> <p>activities in the next quarter based on commitments in the EMP relevant to the stage of the activity, including duration;</p> <p>due dates for satisfaction of Ministerial approval conditions in the next quarter; and</p> <p>due dates for regulatory reporting in the next quarter.</p>	Compliant	<p>Monthly reports were provided to DEPWS on the following dates:</p> <ul style="list-style-type: none"> • 24 November 2022 • 21 December 2022 • 27 January 2023 • 20 February 2023 • 23 March 2023 • 22 April 2023 • 22 May 2023 • 27 June 2023 • 31 July 2023 • 24 August 2023 • 22 September 2023 • 30 October 2023 • 23 November 2023
	<p>iii. During civil works (and noting civil works is taken to include any type of earth moving, land clearing, installation of gravel pits, establishment of well pads, establishment of access tracks), weekly reports indicating:</p> <p>the status and progress of vegetation clearing and civil works at each location the activity is conducted;</p> <p>any fires potentially threatening the activity from external or internal sources;</p> <p>the outcome of inspections of erosion and sediment control measures, and corrective actions taken; and</p> <p>the outcome of inspections and risk assessments for determining suitability of use of unsealed roads by any vehicle or</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

No	Ministerial condition	Compliance Status	Evidence
	machinery other than a light vehicle in the wet season.		
iv.	<p>During drilling, daily on-site reports to be consolidated and provided weekly, indicating:</p> <p>Status and progress of drilling at each location;</p> <p>Freeboard available in drill cutting pits (in cm); and</p> <p>The outcome of general site inspections relevant to drilling and waste, and corrective actions taken.</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
v.	<p>During hydraulic fracturing and flowback, weekly reports indicating:</p> <p>status and progress of hydraulic fracturing</p> <p>weekly measurement of stored volume (in ML) and freeboard available (in cm) of wastewater storage tanks, unless operated in the wet season, during which it must be measured daily; and</p> <p>the outcome of general site inspections relevant to hydraulic fracturing and waste, and corrective actions taken.</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
vi.	<p>During the wet season, weekly reports indicating:</p> <p>the outcome of inspections of erosion and sediment control measures, and corrective actions taken;</p> <p>the outcome of daily inspections of any secondary containment in use, and corrective actions taken;</p> <p>any halt to the regulated activity due to wet season conditions; and</p> <p>daily measurements of freeboard available in drill cutting pits and wastewater treatment tanks (in cm) whenever operational.</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
vii	For avoidance of doubt, if wastewater is present in tanks or drill cutting pits contain waste drill fluids and cuttings, these are considered to be operational. Reports must continue to be provided as per parts iv and v above, irrespective of whether there is manned activity occurring on site if the wastewater infrastructure is operational.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

No	Ministerial condition	Compliance Status	Evidence
	viii In the event that multiple regulated activities under the EMP are being conducted concurrently, the weekly submission of consolidated daily reports may be further consolidated to a single submission, but must clearly identify the locations and activities to which the information pertains, in relation to each item listed in conditions iii to v above, inclusive.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
2	<p>The interest holder must provide an annual report to DEPWS, via Onshoregas.DEPWS@nt.gov.au, on its environmental performance, in accordance with item 11(1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016 (NT). With respect to the reports required to be submitted in accordance with item 11(1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016 (NT):</p> <ul style="list-style-type: none"> i. The first report must cover the 12 month period from the date of the approval, and be provided within 3 calendar months of the end of the reporting period. ii. Each report must align with the template and Guideline prepared by DEPWS for this purpose and be provided each year until such time a notification is made to the Minister under regulation 14 that the activity is complete, or until the EMP is revised and re-approved. 	Compliant	<p>This AEPR is the first report since EMP approval and aligns with the DEPWS guideline.</p> <p>The interest holder has prepared this AEPR for the reporting period 15 November 2022 – 14 November 2023.</p>
3	<p>In support of clause D.6.2 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory (the Code), an emissions report must be provided by 31 October each year to DEPWS, via Onshoregas.DEPWS@nt.gov.au, which:</p> <ul style="list-style-type: none"> i. Documents actual annual greenhouse gas emissions from conduct of the regulated activity estimated and reported under the Commonwealth <i>National Greenhouse and Energy Reporting Act 2007</i> (NGER Act) versus predicted emissions in the EMP; ii. Demonstrates the actual emissions have been verified by an auditor registered under the Register of Greenhouse and Energy Auditors 	Compliant	<p>No regulated activities have been undertaken during the reporting period under this EMP.</p> <p>The annual emissions report was submitted to DEPWS on 27 September 2023.</p> <p>Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.</p>

No	Ministerial condition	Compliance Status	Evidence
	<p>established under section 75A of the NGER Act;</p> <p>iii. Includes a summary of all regulated activities conducted which have contributed to greenhouse gas emissions during the reporting period; and</p> <p>iv. Accounts for differences between actual and predicted emissions with reference to all parts of the regulated activity with potential to create greenhouse gas emissions.</p> <p>FOOTNOTE 1: Clause D.6.2(b) of the Code requires annual actual greenhouse gas emissions to be provided even where emissions are below the NGERs threshold of 25 ktCO₂e for scope 1 and scope 2 emissions reporting.</p> <p>FOOTNOTE 2: The timing for submissions of the report in Condition 3 is to align with the timing for submission of reports to the Commonwealth Clean Energy Regulator, who may change submission due dates from time to time.</p>		
4	<p>i. The interest holder must: comply with its Greenhouse Gas Abatement Plan (GGAP) prepared by [Tamboran] 82 Pty Ltd, dated 25 October 2022 as updated annually in accordance with condition (ii) below;</p>	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
	<p>ii. by 30 September each year, provide an updated GGAP to Onshoregas.DEPWS@nt.gov.au, which meets the GGAP content requirements of the Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy version 1.1 dated 1 September 2021 and demonstrates:</p> <p>a) the actual scope 1 and scope 2 greenhouse gas emissions produced, compared to the predicted scope 1 and scope 2 greenhouse gas emissions in the EMP;</p> <p>b) the proposed method/s of offsetting residual cumulative scope 1 and scope 2 greenhouse gas emissions across all active EMPs for the preceding financial year;</p> <p>c) any changes to predicted future cumulative scope 1 and scope 2</p>	Compliant	Annual GGAP submitted to DEPWS on 27 September 2023.

No	Ministerial condition	Compliance Status	Evidence
	greenhouse gas emissions across all active EMPs; and d) annual progress towards achieving net zero emissions by 2050; and		
	iii. By 30 November each year, provide evidence of offsets obtained during the previous financial year to Onshoregas.DEPWS@nt.gov.au .	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
5	To support clause C.7.2 of the Code, all accidental releases of liquid contaminant or hazardous chemicals must be immediately recorded in a site spill register. The register must include: <ul style="list-style-type: none"> i. The location, source and volume of the spill or leak; ii. Volume of impacted soil removed for appropriate disposal and the depth of any associated excavation; iii. The corrective actions taken or proposed to be taken to prevent recurrence of an incident of a similar nature; and iv. GPS co-ordinates of the location of the spill. 	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
6	i. In support of clause B.4.17.2 of the Code, the interest holder must: Undertake quarterly groundwater monitoring at each control and impact monitoring bore for a minimum of three years after establishment, unless otherwise advised by DEPWS.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
	ii. provide to DEPWS, via Onshoregas.DEPWS@nt.gov.au , the results of quarterly groundwater monitoring, as soon as practicable and no later than 2 months after collection, in a format to be determined by DEPWS; and	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
	iii. provide to DEPWS, via Onshoregas.DEPWS@nt.gov.au , an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site(s) in accordance with Table 6 of the Code. The interpretative report must be provided annually within 3 months of the anniversary of the approval date of the EMP and include: identification of any change to groundwater quality or level attributable to	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

No	Ministerial condition	Compliance Status	Evidence
	<p>conduct of the regulated activity at the well site(s) and discussion of the significance and cause of any such observed change</p> <p>interpretation of any statistical outliers observed from baseline measured values for each of the analytes</p> <p>discussion of any trends observed</p> <p>a summary of the results including descriptive statistics</p> <p>description of the layout of the groundwater monitoring bores and wells, indicative groundwater flow directions and levels in accordance with the Preliminary Guideline Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin.</p>		
	iv Develop site-specific performance standards for groundwater quality and interquartile ranges for analytes at each of the impact monitoring bores established, based on the first 3 years of groundwater monitoring, and provide to DEPWS, via Onshoregas.DEPWS@nt.gov.au within 6 months of the 3-year anniversary of approval of the EMP.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
7	In support of clause 16 of the <i>Water Act 1992</i> (NT) and clause 8.4.2 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory, the interest holder must undertake groundwater level / pressure monitoring at each impact monitoring bore established, using a logger to record water level for 2 weeks prior to, during, and 4 weeks after completion of hydraulic fracturing operations at each well pad. Data logging should record at a minimum of every 4 minutes for the duration of the recording period. The logging data should be provided to DEPWS via Onshoregas.DEPWS@nt.gov.au within 2 weeks of completion of groundwater level monitoring in each impact monitoring bore.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
8	The interest holder must provide a report via Onshoregas.DEPWS@nt.gov.au within 8 weeks of completion of well flowback operations for the first well where flowback fluid has been reused, and include a risk assessment of the returned flowback fluid following the reuse. The risk assessment must be:	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

No	Ministerial condition	Compliance Status	Evidence
	<ul style="list-style-type: none"> i. prepared by a suitably qualified person; and ii. prepared in accordance with the monitoring wastewater analytes specified in section C.8 of the Code. 		
9	<p>Within 30 days of each occasion a groundwater bore is installed, the interest holder must send to Onshoregas.DEPWS@nt.gov.au:</p> <ul style="list-style-type: none"> i. the registered number of the groundwater bore; ii. the aquifer the groundwater bore is targeting; iii. the purpose of the groundwater bore; iv. whether the bore is proposed to be included on an extraction licence and the proposed volume to be extracted per annum, or if already included on an extraction licence, the extraction licence number and date issued and the volume allowed for extraction per annum; and v. the GPS coordinates of the groundwater bore. 	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
10	<p>Within 12 months of the start date of the proposed seismic acquisition, submit a report to Onshoregas.DEPWS@nt.gov.au outlining the success of the proposed trial with seismic charges, which considers:</p> <ul style="list-style-type: none"> i. estimated difference in clearing footprint between vibroseis and seismic charges methods; ii. potential and observed impact to tree health within 20 m of the locations where seismic charges were used; iii. potential and observed surface disturbance from the release of seismic charges at the locations where seismic charges were used; and iv. observations on the efficacy of use of seismic charges as an alternative approach for conducting seismic activities. 	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

2.2 Environmental outcomes and performance standards

Table 4 provides a systematic overview of compliance with the environmental outcomes and environmental performance standards within the approved EMP.

Table 4 Environmental outcome and performance standard compliance summary

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
Environmental performance measures- soil					
S-1	No significant impact to the ecological function and productivity of soils resulting from [Tamboran's] exploration activities.	No releases of contaminants (chemicals, stimulation fluid, hydrocarbon, drilling wastewater or flowback wastewater) outside of [Tamboran's] lease pad.	Weekly site inspections completed during operations confirm no releases of chemicals, hydrocarbons and wastes outside of [Tamboran's] lease disturbance area.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
S-2		No reportable spills, including wastewater tank/sump overtopping events or spills from wastewater recycling, resulting from [Tamboran's] exploration activities.	Weekly site inspections during hydrocarbon, wastewater and chemical storage, handling and recycling activities confirm no reportable spills.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
S-3			Zero reportable incidents resulting from chemical or waste handling, recycling, treatment and transportation accidents.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
S-4		Erosion and sediment control in place and working effectively.	6-monthly site stability inspections confirm ESC in place and working effectively. No erosion or sediment releases present that cannot be rectified	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
			during routine site maintenance.		
S-5			Evidence of maintenance performed on all material erosion and sediment control events.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
S-6		Seismic line reinstatement and rehabilitation implemented to return vegetation cover.	Seismic lines to be reinstated within 4 weeks.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measure – surface water					
SW-1	No significant impact on surface water quality as a result of [Tamboran’s] exploration activities.	During chemical and wastewater storage activities, no offsite release of contaminants from chemical, hydrocarbon and waste storage.	All stormwater discharges monitored by operators prior to release, with results confirm stormwater is within the approved limits listed in Table 23.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
SW-2		No seismic events over Ml 3.5 attributable to [Tamboran’s] activities.	No seismic events over Ml 3.5 recorded in vicinity of a hydraulic fracture operation measured at the Warramunga seismic monitoring station or adjacent seismometer during period that hydraulic fracture estimations have occurred resulting in surface subsidence and impacting surface hydrology.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
SW-3		No reportable spills, including off-site releases of contaminants resulting from [Tamboran's] exploration activities.	Weekly site inspections completed during chemical and wastewater storage, handling and recycling confirm no releases of chemicals, hydrocarbons and wastewater outside of the project areas	Not applicable	
SW-4		Erosion and sediment control in place and working effectively.	All material erosion and sediment control events are rectified as soon practicable upon identification	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measure – groundwater					
GW-1	[Tamboran's] exploration activities do not reduce the environmental values of the underlying groundwater resources.	All regional aquifers isolated through cement and casing.	Isolation of the Gum Ridge Formation and Anthony Lagoons Formation is confirmed through cement bond logs and casing pressure tests.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
GW-2		No failure of wastewater tank secondary liner.	All leak detection alarms investigated within 24 hour, with no incidents of secondary liner failure.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
GW-3		No seismic events over Ml 3.5 attributable to Tamboran's activities.	No seismic events over Ml 3.5 recorded in vicinity of a hydraulic fracture operation measured at the Barramunga seismic monitoring station or	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
			adjacent site seismometer during period that hydraulic fracture stimulations have occurred.		
GW-4		No long-term (>12 month) reduction in quality of an impact groundwater monitoring bore that is attributable to [Tamboran's] activities. A decline is defined as a change in water chemistry that exceeds the ANZECC guidelines for Livestock (the primary Environmental Value) of groundwater in the region.	Quarterly groundwater monitoring data collected and analysed against baseline data demonstrates no material decline in groundwater quality.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
GW-5		No long term (>12 month) reduction in groundwater level observed in the impact monitoring bore that results in >1 m decline in groundwater water level.	Quarterly groundwater monitoring data collected and analysed against baseline data confirms no material (>1 m) decline in groundwater level.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
GW-6			Total groundwater extraction volume below the approved water extraction licence take of 175 ML/year.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measures – ecology					
EC-1	No significant impact to high valued habitats and listed	No releases of wastewater (drilling fluid and flowback) off	Weekly site inspections confirm no loss of containment (structural	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
	threatened flora and fauna from [Tamboran's] exploration activities.	the lease into the surrounding vegetation.	failure, overtopping or major spills from wastewater storage, handling and recycling) resulting in off-site releases of wastewater.		
EC-2		<7 individual fauna deaths per week for 2 consecutive weeks caused by flowback water storage.	Daily checks of wastewater tanks for fauna mortality during well testing.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-3			Weekly checks of area immediately surrounding lease pad for fauna deaths.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-4		No listed threatened fauna deaths caused by flowback storage, handling and recycling.	Daily checks of wastewater tanks for fauna mortality during well testing.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-5			Weekly checks of area immediately surrounding lease pad for fauna deaths.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-6		No uncontrolled bushfires caused by Tamboran's exploration activities (including civil construction, seismic and E&A activities).	Zero reported incidents of uncontrolled bushfire caused by [Tamboran's] activities.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-7		Weed surveys completed on all [Tamboran] disturbed areas.	6-monthly pre- and post-wet season weed surveys completed on all [Tamboran] controlled disturbed areas.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
EC-8		Year-on-year decline in the size and density of all weed infestations introduced as a result of [Tamboran's] activities.	Annual report demonstrates weed infestation size and density of weed outbreaks introduced by [Tamboran's] activities are reducing each year.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-9		Disturbed seismic lines are reinstated promptly to promote revegetation.	Seismic reinstatement commences within 4 weeks upon completion of seismic data acquisition.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measures – air quality and GHG emissions					
AQ-1	No significant impact on air quality and no excess greenhouse gas emissions as a result of [Tamboran's] exploration activities.	Venting to be eliminated as far as reasonably practicable.	Daily reports confirm the absence of cold venting.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
AQ-2		All greenhouse gasses reporting in accordance with NGERS requirements.	All emissions related data (fuel use, flaring volumes etc.) reported in accordance with NGERS requirements.	Compliant	No regulated activities have been undertaken during the reporting period under this EMP. The annual emissions report was submitted to DEPWS on 27 September 2023. Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.
AQ-3		All leaks detected and repaired in accordance with code.	6-monthly leak detection program completed on surface equipment.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
AQ-4			Minor leaks rectified as per Code of Practice within 30-days.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
AQ-5			A significant leak is repaired as per the Code of Practice within 72-hours.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measures – community					
CO-1	No significant negative impacts to the community as a result of [Tamboran's] exploration activities	All valid community complaints of nuisance investigated and resolved.	All valid community complaints responded to within 24-hours with actions to remedy nuisance implemented as soon as practicable (depending on the nature of the complaint).	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
CO-2		>60% of addressable spend ² to be from NT businesses.	Project expenditure data confirms the NT business spend on the Beetaloo exploration project exceeds >60% of addressable spend ² of the project.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
Environmental performance measures – cultural heritage					
EC-1	No significant impact on sacred sites and environmental values as a result of	No non-compliances with Native Title Holder Exploration Agreements and AAPA certificate conditions.	No non-compliances with AAPA certificate conditions including unauthorised work within Restricted Work Areas (RWA).	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

² Addressable spend is defined as a service or material that can be reasonably provided by an NT business at similar quality, timeliness and cost.

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
EC-2	[Tamboran's] exploration activities.		No breaches of Native Title holders Exploration Agreements.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-3	Protection of culture and heritage.	Native Title holders are actively engaged on [Tamboran's] work program, including understanding of [Tamboran's] current and future exploration activities.	Annual work program update report completed and submitted on time.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-4			On country meetings completed providing status of work program and future activities- including ongoing presentation of story boards and other activity information.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-5			Engagement and presence of local Cultural Managers during new land disturbance activities.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-6			Annual welcome to country smoking ceremonies completed for each year's work program.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
EC-7			Indigenous business involved in at least 2 environmental monitoring program, such as weed, monitoring, groundwater monitoring and site stability monitoring.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

2.3 Mandatory reporting requirements

Table 5 demonstrates compliance with reporting requirements in the Code and interest holder’s compliance with reporting requirements under the Regulations, schedule 1, item 11(2) – i.e. that all information to be recorded, monitored or reported has been provided. Where relevant, Tamboran has also confirmed that all records, monitoring or required reporting under the Regulations³ has been provided to DEPWS or the relevant NTG agency.

Table 5 Summary of mandatory reporting requirements

#	Reference	Requirement	Compliance Status	Evidence
1	Code A.3.5	Geospatial information depicting areas cleared is to be provided to the Minister.	Not applicable	Surface disturbance areas and subsequent DXF files have not changed from those provided with EMP approved by the Minister on 14 November 2022. No regulated activities have been undertaken during the reporting period under this EMP.
2	Code A.3.6 (b)	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	Compliant	The approved EMP includes a weed management plan. Annual weed monitoring report for 2022 – 2023 was submitted DEPWS on 15 December 2023. No regulated activities have been undertaken during the reporting period under this EMP.
3	Code A.3.7(a)vi	The fire management plan developed as part of the EMP must provide for annual fire mapping to monitor changes to fire frequency in the relevant areas.	Compliant	The approved EMP includes a fire management plan. Annual fire frequency report submitted to DEPWS on 27 September 2023. No regulated activities have been undertaken during the reporting period under this EMP.
4	Code A.3.9(c) Code A.3.9(e)	The rehabilitation plan developed as part of the EMP requires progressive rehabilitation of significantly disturbed land which is required to commence no	Compliant	Rehabilitation management plan developed and submitted to DEPWS as part of the approved EMP. The rehabilitation requirements are not applicable as all sites remain operational, with rehabilitation activities not undertaken to date.

³ Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11(2).

#	Reference	Requirement	Compliance Status	Evidence
		longer than 12 months following the cessation of activities on the land. It also requires regular maintenance and annual monitoring of rehabilitated areas.		
5	Code B.4.13.2(c)	As a minimum, the following must be recorded and reported for each stage (where a stage in this context means all fluids pumped at a particular depth interval): <ul style="list-style-type: none"> total volume of hydraulic fracturing fluid pumped, quality of water used (tested for analytes in section C.8 of this Code. Analyses do not need to be repeated if the same water source is used for multiple stages) and typical and maximum concentrations of chemicals or other substances used. 	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
6	Code B.4.13.2(k)iv	Where venting is the only technically feasible option for managing produced gas, the technical considerations preventing the use of the recovered gas must be recorded and included in the operator's annual report.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Reference	Requirement	Compliance Status	Evidence
7	Code B.4.14.2(c)	All new barriers or new well operating envelopes must be verified and clearly documented and reported by submission of an updated well barrier integrity validation (WBIV) report to DPIR.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
8	Code B.4.15.2(j)	Complete and accurate records of the entire decommissioning procedure must be kept, with these records submitted as part of the legislative reporting requirements for the decommissioning of petroleum wells.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
9	Code B.4.17.2(d)	Any guidelines published by the Northern Territory Government from time to time relating to reporting and data submission, and groundwater monitoring data standards must be followed.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
10	Code C.3(e)	The components of the wastewater management framework, include: Monitor, manage and report in accordance with the Wastewater Management Plan and Spill Management Plan.	Compliant	The approved EMP includes a WWMP and SMP. No regulated activities have been undertaken during the reporting period under this EMP.
11	Code C.6.1(d)	Wastewater tracking documentation must be reported to the Minister at least annually in	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Reference	Requirement	Compliance Status	Evidence
		accordance with the framework provided in the EMP.		
12	Code C.7.1(d)ii	Wastewater Management Plan must include a program for monitoring and reporting against the effectiveness of the measures for the mitigation of interaction with wildlife, stock and human receptors with wastewater.	Not applicable	The approved EMP includes a WWMP and SMP. No regulated activities have been undertaken during the reporting period under this EMP.
13	Code D.4.3.2(f)	A written report detailing the levels of methane measured, the duration of the unusual readings and the results of the investigation (including remedial actions) must be submitted within one month of the significantly higher-level methane event being detected.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
14	Code D.5.9.2(c)	Emissions from exploration, well construction (including during flowback) and workovers must be measured and reports submitted.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
15	Code D.5.9.3(a)	Where natural gas is vented or flared at a gas processing or other downstream facility, emissions must be estimated and reported.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
16	Code D.6.2(a)	Reports of baseline assessments must be submitted at the conclusion of each field campaign.	Not applicable	CSIRO completed baseline assessments through DITT.

#	Reference	Requirement	Compliance Status	Evidence
17	Code D.6.2(b)	Emissions reporting must be in accordance with Section D.5.6. Emissions associated with venting and flaring as described in Section D.5.9 must be provided separately to the Northern Territory Government in accordance with this Code.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP. The annual emissions report was submitted to DEPWS on 27 September 2023. Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.
18	Regulations Reg 14	A current EMP remains in force until the interest holder notifies the Minister the activity is no longer being carried out and all of the environmental outcomes and obligations under the plan have been met, and the Minister advises the interest holder the notice is accepted and the plan ceases to be in force.	Compliant	The EMP is still in force and has approximately 4 years remaining before the next review.
19	Regulations Reg 33	DEPWS is notified of reportable incidents within 2 hours of the interest holder becoming aware of the incident, or within 2 hours of the incident occurring. A written report must be provided within 24 hours if the initial report was made orally.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
20	Regulations Reg 34	Reports on reportable incidents are to be provided to DEPWS as soon as practicable and within 72 hours of the event occurring.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Reference	Requirement	Compliance Status	Evidence
		A final report must be provided to DEPWS within 30 days after remediation/clean-up of the affected area.		
21	Regulations Reg 35	A written report of all recordable incidents must be provided to DEPWS not later than 15 days after the 90-day reporting period (unless otherwise agreed).	Compliant	Quarterly recordable incidents reports were provided as follows: <ul style="list-style-type: none"> • Q4 2022 report provided 16/01/2023 • Q1 2023 report provided 13/04/2023 • Q2 2023 report provided 14/07/2023 • Q3 2023 report provided 13/10/2023 • Q4 2023 report provided 15/01/2024
22	Regulations Reg 37A	A report about flowback fluid from hydraulic fracturing must be provided to the Minister within 6 months of the flowback occurring.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
23	Regulations Reg 37B	A report about produced water from hydraulic fracturing must be provided to the Minister within 6 months of the produced water being extracted.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
24	Regulations Schedule 1, item 9(2)	Interest holders are required to conduct future engagement with stakeholders, in accordance with the description in the EMP.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
25	Regulations Schedule 1, item 12	Interest holder must notify the Minister, occupier of the land and owner of the land on which the activity is to be carried out before commencement of activity.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

#	Reference	Requirement	Compliance Status	Evidence
26	Environment Protection Act 2019 (NT) div 8	Duty to notify the NT EPA as soon as practicable but within 24 hours of any incident which occurs which causes or threatens to cause material or significant environmental harm.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.
27	Waste Management and Pollution Control Act 1998 (NT) s 14	Duty to notify the NT EPA as soon as practicable but within 24 hours of any incident which occurs which causes or threatens to cause pollution resulting in material or significant environmental harm.	Not applicable	No regulated activities have been undertaken during the reporting period under this EMP.

3. Summary of Compliance

3.1 Overview of compliance

Table 6 provides a summary of the results of the compliance assessment against the EMP.

Table 6 Amungee Delineation Program EP 98 EMP (ORI11-3) compliance summary

Compliance indicator	Number	Percentage
Compliant	11	100% ^a
Not compliant	0	0%
Not applicable	77	N/A

^a Excludes regulatory requirements that are not applicable.

3.2 Overview of items found not compliant

The following sections describe:

- the specific compliance requirements not met for the reporting period
- an analysis of the possible potential environmental harm or impact to environmental values resulting from non-compliance, using multiple lines of evidence
- a summary of the corrective actions already implemented, and further actions still required, as applicable, to ensure compliance is fully achieved in the future.

3.2.1 Ministerial approval conditions

3.2.1.1 Description

No non-compliances with Ministerial conditions were observed during the reporting period due to the limited nature of the activities.

3.2.2 Environmental performance standards

3.2.2.1 Description

No non-compliance with an environmental performance standard was recorded during the reporting period due to the limited nature of the activities.

3.2.3 Regulatory reporting

3.2.3.1 Description

No non-compliance with regulatory reporting requirements were recorded during the period, due to the limited nature of the activities.

3.3 Application of Lessons Learned Across Tamboran's Onshore Interests

Due to the limited nature of the activities, no material lessons learnt were generated during the reporting period.