

# WELL DRILLING, HYDRAULIC FRACTURE STIMULATION AND WELL TESTING EP 136 (SWP4-3)

**Annual Environment Performance Report** 



# SWEETPEA PETROLEUM PTY LTD

(a subsidiary of Tamboran Resources Limited)



## **Document Details**

Document title	Well Drilling, Hydraulic Fracture Stimulation and Well Testing EP 136 Annual Environment Performance Report		
EMPs Covered	Well Drilling, Hydraulic Fracture Stimulation and Well Testing EP 136 EMP (SWP4-3)		
Permit	EP 136		
Interest holder details	Sweetpea Petroleum Pty Ltd c/- Tamboran Resources Ltd 110-112 The Corso Manly NSW 2095		
Operator details	Sweetpea Petroleum Pty Ltd ABN: 42 074 570 879 (a wholly owned subsidiary of Tamboran Resources Ltd, ABN 28 135 299 062)		
Approved by Matt Kernke: Environment and Approvals Manager			
Date approved 8 November 2023			

# **Version History**

Rev	Date	Reason for issue	Reviewer	Approver
0	8 November 2023	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	Matt Kernke
Name	Matt Kernke
Position	Environment and Approvals Manager
Date	8 November 2023



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#### 1. INTRODUCTION

The Northern Territory (NT) Petroleum (Environment) Regulations 2016 (the Regulations) include a requirement<sup>1</sup> 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:

• Well Drilling, Hydraulic Fracture Stimulation and Well Testing (EMP) EP 136 (SWP4-3), approved 11 August 2022

The AEPR covers the reporting period of the 12 August 2022 – 11 August 2023, as reported by Sweetpea Petroleum Pty Ltd (the interest holder).

## 1.1 Acronyms and abbreviations

Table 1 Summary of acronyms and abbreviations

Acronym	Definition
AAPA	Aboriginal Areas Protection Authority
AEPR	Annual Environment Performance Report
CMS	Compliance management system
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
FTP	File Transfer Protocol
ha	Hectare
NT	Northern Territory
Regulations	Petroleum (Environment) Regulations 2016

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<sup>&</sup>lt;sup>1</sup> 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 *Well Drilling, Hydraulic Fracture Stimulation and Well Testing (EMP) EP 136* (SWP4-3), approved 11 August 2022. Activities undertaken during the period include:

- Land clearing of up to 1.2 ha to expand existing camp pad
- Exploration well drilling and completions at 1 well: Maverick T436 A1-1, which commenced on 17 September 2022
- Well testing and completion (September October 2022)
- Management of drilling wastewater
- The use of the control monitoring bore (CMB) RN042730, including groundwater monitoring
- Routine and ongoing maintenance of infrastructure
- Any other minor works ancillary to the above-mentioned works.

Location of the regulated activities is provided in Figure 1, noting that all regulated activities reported in this AEPR had only occurred at site LP1, referred to as Maverick-1.



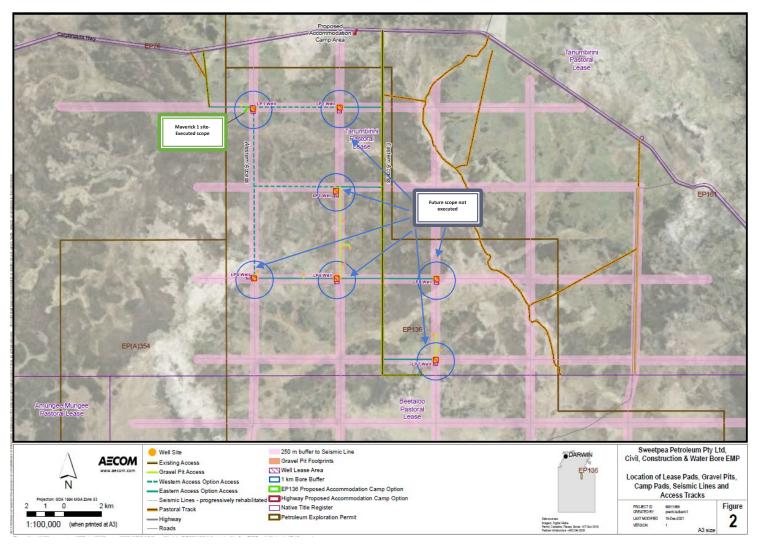


Figure 1 Location of lease pads, gravel pits, camp pads, seismic lines and access tracks



## 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 the interest holder's compliance with Ministerial EMP approval conditions.

Table 3 Ministerial condition summary table

No	Ministerial condition	Compliance Status	Evidence
1	The interest holder must submit to the Department of Environment, Parks and Water Security (DEPWS), via Onshoregas.DEPWS@nt.gov.au the following:  i. Notification of the commencement of	Not applicable	The Maverick T436 A1-1 well has not undergone hydraulic fracturing.
	hydraulic fracturing activities prior to commencement.		
	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	Compliant	Quarterly reports were provided to DEPWS on the following dates:  • 30/12/2022
	September and 31 December each year), that:  a) identifies activities completed in the current quarter;		23/03/2023- as a part of the monthly report
	b) regulated activities planned for the next quarter, including duration;		<ul><li>28/06/2023</li><li>27/09/2023</li></ul>
	<ul> <li>activities based on commitments in the EMP relevant to the stage of the activity planned for the next quarter, including duration;</li> </ul>		Monthly activity reports were also submitted to DEPWS on the following dates:
	<ul> <li>d) due dates for satisfaction of Ministerial approval conditions in the next quarter; and</li> </ul>		<ul><li>24/11/2022</li><li>21/12/2022</li></ul>
	e) due dates for regulatory reporting in the next quarter.		<ul> <li>27/01/2023</li> <li>20/02/2023</li> <li>23/03/2023</li> <li>22/04/2023</li> <li>22/05/2023</li> <li>27/06/2023</li> <li>31/07/2023</li> <li>21/08/2023</li> </ul>
	<ul><li>iii. During drilling, daily on-site reports, to be consolidated and provided weekly, indicating:</li></ul>	Compliant	<ul> <li>Daily drilling reports issued to DEPWS during drilling.</li> </ul>
	a) status and progress of drilling at each location;		<ul> <li>Consolidated weekly drilling reports provided to DEPWS</li> </ul>
	<ul> <li>freeboard available in drill cutting pits (in cm);</li> <li>and</li> </ul>		during drilling.   Weekly fluids management
	c) the outcome of general site inspections relevant to drilling and waste, and corrective actions taken.		reporting to DEPWS is ongoing.
	iv. During hydraulic fracturing and flowback, weekly reports indicating:	Not applicable	The Maverick T436 A1-1 well has not undergone hydraulic
	a) status and progress of hydraulic fracturing;		fracturing.



No	Ministerial condition	Compliance Status	Evidence
	b) 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		
	<ul> <li>the outcome of general site inspections relevant to hydraulic fracturing and waste, and corrective actions taken.</li> </ul>		
	v. During the wet season, weekly reports indicating:		
	a) the outcome of daily inspections of any secondary containment in use. and corrective actions taken;		
	<ul> <li>b) any halt to the regulated activity due to wet season conditions; and</li> </ul>		
	<ul> <li>c) daily measurements of freeboard available in drill cutting pits and wastewater treatment tanks (in cm) whenever operational.</li> </ul>		
	v. 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 (iii), (iv) and (v) above, irrespective of whether there is manned activity occurring on site if the wastewater infrastructure is operational.	Compliant	<ul> <li>Refer reporting activities listed under Ministerial conditions 1i – 1iv.</li> <li>Weekly fluids management reporting is ongoing.</li> </ul>
	vi. 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 (vi) above, inclusive.	Not applicable	<ul> <li>Activities were only undertaken on lease pad 1 (Maverick).</li> <li>Lease pads 2 – 7 have not been constructed.</li> </ul>
	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 Regulations, noting:	Compliant	The interest holder has prepared this AEPR for the reporting period 12 August 2022 – 11 August 2023, inclusive.
2	<ol> <li>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.</li> </ol>		
	<ul><li>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</li></ul>		



No	Ministerial condition	Compliance Status	Evidence
	notification is made to the Minister under regulation 14 that the activity is complete, or until the EMP is revised and re-approved.		
3	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 30 September each year to DEPWS, via Onshoregas.DEPWS@nt.gov.au, which:  i. documents actual annual greenhouse gas emissions from conduct of the regulated activity estimated and reported under the Commonwealth National Greenhouse and Energy Reporting Act 2007 (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 established under section 75A of the NGER Act;  iii. includes a summary of all regulated activities conducted which have contributed to greenhouse gas emissions during the reporting period; and  iv. accounts for differences between actual and predicted emissions with reference to all parts of the regulated activity with potential	Compliant	<ul> <li>The annual emissions report was submitted to DEPWS on 27 September 2023.</li> <li>Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.</li> </ul>
	to create greenhouse gas emissions.  The interest holder must:	Compliant	The annual emissions report was
	i. comply with its Greenhouse Gas Abatement Plan prepared by The interest holder Petroleum Pty Ltd, dated 4 August 2022 as updated annually in accordance with condition (ii) below;		submitted to DEPWS on 27 September 2023.  • Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.
4	ii. by 30 September each year, provide an updated Greenhouse Gas Abatement Plan to Onshoregas.DEPWS@nt.gov.au, which meets the Greenhouse Gas Abatement Plan content requirements of the Greenhouse Gas Emissions Management for New and Expanding Large Emitters Policy version 1.1 dated 1 September 2021 and demonstrates:  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;		



No	Ministerial condition	Compliance Status	Evidence
	<ul> <li>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;</li> <li>c) any changes to predicted future cumulative scope 1 and scope 2 greenhouse gas emissions across all active EMPs; and</li> </ul>		
	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.		
5	To support clause C.7.2 of the Code all accidental releases of liquid contaminant or hazardous chemical must be immediately recorded in a site spill register. The spill register and geospatial files specifying the location of the spill must be submitted to DEPWS via onshoregas.DEPWS@nt.gov.au three months after the 12 month anniversary of the approval of the EMP each year while the EMP is in force. The register must include:  i. the location, source and volume of the spill or leak;	Compliant	The register is provided with this submission.
	<ul> <li>ii. the volume of impacted soil removed for appropriate disposal and the depth of any associated excavation;</li> <li>iii. the corrective actions taken or proposed to be taken to prevent recurrence of an incident of a similar nature; and</li> <li>iv. GPS co-ordinates of the location of the spill.</li> </ul>		
6	In support of clause B.4.17.2 of the Code, the interest holder must:  i. undertake quarterly groundwater monitoring at each control and impact monitoring bore for a minimum of three years after establishment unless otherwise advised by DEPWS;  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	Compliant	Site has not undergone hydraulic fracturing with all data considered baseline collection.  Quarterly groundwater data were provided to DEPWS on the following dates:  • All data collected is considered baseline. Results submitted:  • Q2 2023 – 14 June 2023  • Q3 2023 – 29 September 2023. Additional data were provided to DEPWS on 6 October 2023.



No	Ministerial condition	Compliance Status	Evidence
	months after collection, in a format to be determined by DEPWS;  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:		The interpretive report for Q3 2023 indicates there were no reductions in groundwater quality or level attributable to the regulated activities undertaken under this EMP during the reporting period.
	<ul> <li>a) identification of any change to groundwater quality or level attributable to conduct of the regulated activity at the well site(s) and discussion of the significance and cause of any such observed change;</li> </ul>		
	<li>b) interpretation of any statistical outliers observed from baseline measured values for each of the analytes;</li>		
	c) discussion of any trends observed;		
	d) a summary of the results including descriptive statistics; and		
	e) 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 Subbasin; and		
	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.		
7	In support of clause 16 of the Water Act 1992 (NT) and clause B.4.2 of the Code, 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	Not applicable	The Maverick T436 A1-1 well has not undergone HFS.



No	Ministerial condition	Compliance Status	Evidence
	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.		
8	Within 30 days of each occasion a groundwater bore is installed under this plan, the interest holder must send to  Onshoregas.DEPWS@nt.gov.au:  i. the registered number (RN) of the groundwater bore;  ii. the name of the associated groundwater aquifer in which the bore is located and from which groundwater will be extracted or monitored;  iii. whether the purpose of the groundwater bore is for control monitoring, impact monitoring or water supply;  iv. whether the bore is proposed to be included on a groundwater extraction licence and the proposed total volume (ML) to be extracted per annum; and  v. the GPS coordinates of the groundwater bore.	Not applicable	<ul> <li>The CMB RN042730 was drilling in June – July 2022, prior to the approval of this EMP.</li> <li>The statement of bore is available on the DEPWS website "Know your bore".</li> </ul>
9	The interest holder must provide to DEPWS within 6 weeks of completion of well flowback operations at each new exploration well established under the EMP a report on the risk assessment of flowback wastewater from the hydraulic fracturing phase, via Onshoregas.DEPWS@nt.gov.au. The risk assessment must be:  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.	Not applicable	The Maverick T436 A1-1 well has not undergone hydraulic fracturing.



# 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	Compliance	Evidence
1	Protect the quality and quantity of groundwater so that environmental values including ecological health, land uses, and the welfare and amenity of people and animals (i.e. stock and wildlife) are maintained.  Protect Groundwater Dependent Ecosystems (i.e. Stygofauna).  Detects changes in groundwater as a result of drilling and stimulation activities.	SWP7.2-1 Regional aquifers isolated.	Compliant	1. Regional aquifers isolated. Daily drilling report #25 issued to DITT on 26 September 2022 covered 9-5/8" surface casing cementing
		SWP7.2-2 No long-term (>12 month)     reduction in quality of an impact groundwater     monitoring hore that is attributable to		operations, which demonstrated integrity across the aquifer.  2. Baseline data collection underway, with no
		people and animals (i.e. stock and wildlife) are maintained.  Sweetpea's activities.		stimulation of the Maverick 1 well. Groundwater data were provided to DEPWS on the following dates:
		<ul> <li>SWP7.2-3 No long term (&gt;12 month) reduction in groundwater level observed in</li> </ul>		• Q2 2023 – 14 June 2023
		the impact monitoring bore that results in >1 m decline in groundwater water level.		<ul> <li>Q3 2023 – 29 September 2023.</li> <li>Additional data were provided to DEPWS on 6 October 2023.</li> </ul>
		<ul> <li>SWP7.2-4 Secondary liner of wastewater tanks remains intact</li> </ul>		3. No long-term reductions in groundwater quality or level attributable to the regulated activities undertaken under this EMP during the reporting period.
				Weekly site checks indicate that the liner on the wastewater tank remains intact.
2	Land and surface water management	SWP7.3-1 The planned disturbance footprint are within the parameters established for the	Compliant	<ul><li>Surveying of all disturbance completed.</li><li>Spatial data confirming land clearing of the</li></ul>
	No significant long-term impacts to the ecological function and	exploration lease pads, gravel pits and associated access tracks (refer to Table 3).		Maverick-1 site was provided to DEPWS on 6 Jan 2023.



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
	productivity of soils at the exploration lease pads, gravel pits and accommodation as result of The interest holder's exploration activities.  • Meet AAPA conditions as relates to Newcastle Creek Crossing at RWA2.	SWP7.3-2 Erosion and sediment controls in place and working as designed.	Not compliant	Reportable incident 28 November 2022:     Reportable incident associated with a stormwater release from the Maverick 1 site, due to bund failure.
		SWP7.3-3 No releases of contaminants chemicals, hydrocarbon, drilling wastewater or flowback wastewater) outside the interest holder's exploration areas.	Compliant	No recordable or reportable incidents relating to the release of any contaminants outside of the interest holder's exploration areas were recorded during the reporting period.
		SWP7.3-4 No reportable spill as result of wastewater tank/sump overtopping or tank failure.	Compliant	No incidents of wastewater tank / sump overtopping, or tank failure recorded.
		SWP7.3-5 No permanent damage to Newcastle Creek Crossing.	Compliant	There has been no incidents that have resulted in permanent damage to Newcastle creek crossing
		SWP7.3-6 Following conduct of the regulated activity, land not required for operational activities will progressively be returned to pre-disturbance conditions.	Not applicable	The site remained active during the reporting period.
3	No introduction of new or spread of existing Weeds of National Environmental Significance	SWP7.4-1 No introduction of new or spread of existing Weeds of National Environmental Significance, weeds listed under NT legislation or locally significant weed species.	Compliant	No recordable or reportable incidents were recorded during this activity that resulted in the introduction or spread of declared weeds within EP 136.
	(WoNS) or weeds listed under NT legislation or locally significant weed species.	, , , , , , , , , , , , , , , , , , , ,		Six-monthly weed inspections completed on all activity areas including camp area, access tracks and Maverick-1 lease pad.
				Weed survey was completed in May 2023.
				A pre-wet season survey is scheduled for the week of 23 November 2023, after the first rain to



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
				survey for juvenile plants and apply immediate treatments. The survey will be undertaken with the DEPWS Onshore Petroleum Weed Management Officer.
				Weed declarations were provided for all vehicles, equipment and machinery moving to EP 136.
				Personnel inductions include specific requirements around weed hygiene.
4	Bushfire management  Bushfires are not started as a	SWP7.5-1 No uncontrolled fires occurring as a result of civil construction and water bore	Compliant	No uncontrolled fires occurred or were reported during the exploration activities.
	result of conduct of the regulated activity and exploration lease pads are protected from fires started outside of the work area.	activities.		<ul> <li>Annual fire frequency report submitted to DEPWS on 27 September 2023. According to the NAFI website, no fires were recorded in the vicinity of EP 136 between 2022 – 2023.</li> </ul>
5	Waste and wastewater management  No long-term adverse impacts on	SWP7.6-1 Designated wastewater storage and handling delivered in accordance with this plan.	Not compliant	Recordable incident 1 October 2022: the volume within the drilling sump exceeded the wet season freeboard level. The sump did not overtop or
	soil, surface water, groundwater, sensitive habitats and air quality as result of Sweetpea's waste generation.			<ul> <li>was at risk of overtopping.</li> <li>Recordable incident 1 October 2022: 314,600 L of low EC water was used as dust suppression. The activity was not authorised under the EMP or WWMP.</li> </ul>
				No environmental harm occurred from these incidents.
		SWP7.6-2 Freeboard in open-topped tanks and sump maintained.	Not compliant	<ul> <li>Recordable incident 1 October 2022: the volume within the drilling sump exceeded the wet season freeboard level. The sump did not overtop or was at risk of overtopping.</li> </ul>



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
		SWP7.6-3 No instance of loss of containment of wastewater.	Compliant	No recordable or reportable incidents related to loss of containment of wastewater were recorded during the reporting period.
		SWP7.6-4 No release of wastewater (drilling fluids and flowback) off lease pad into surrounding vegetation.	Compliant	No recordable or reportable incidents related to the release of wastewater off the lease pad area were recorded during the reporting period.
		SWP7.6-5 No overtopping of pits, flowback water or produced water tanks due to significant rainfall event.	Compliant	<ul> <li>No recordable or reportable incidents related to overtopping of pits, flowback water or produced water tanks were recorded during the reporting period.</li> </ul>
		SWP7.6-6 >7 individual fauna deaths per week for 2 consecutive weeks caused by flowback water storage.	Not applicable	The Maverick T436 A1-1 well has not undergone hydraulic fracturing.
		SWP7.6-7 Irrigation of treated effluent does not adversely impact soil, surface water, groundwater, sensitive habitats and air quality.	Compliant	No recordable or reportable incidents were recorded during this activity that indicated any adverse impacts to any sensitive receptors from the irrigation of treated effluent.
		SWP7.6-8 No releases of contaminants (wastes, chemicals or hydrocarbons) resulting in long-term contamination of the soil, surface water, groundwater, sensitive habitats and air quality.	Compliant	No incidents that have resulted in long term contamination of soil, surface water, groundwater, sensitive habitats and air quality recorded.
6	Noise, vibration and lighting emissions  • Manage activities in accordance with occupational health and safety guidelines for noise,	SWP7.7-1 No significant impact to rural acoustic, lighting, vibration and visual amenity environment as a result of the DST program.	Compliant	No nuisance-related complaints were received during the regulated activity.



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
	vibration and light exposure and minimise nuisance noise and vibration impacts on surrounding communities, including fauna and stock.			
7	Air quality and emissions     Minimise environmental nuisance at sensitive receptors.	SWP7.8-1 No significant impact to air quality at sensitive receptors as a result of the DST program.		No nuisance-related complaints were received during the regulated activity.      The annual emissions report was submitted to
	Minimise greenhouse gas emissions.	SWP7.8-2Greenhouse gas emissions are minimised during the DST program.	Compliant	DEPWS on 27 September 2023. Minor amendments were requested by DEPWS, and the amended report was submitted on 4 October 2023.
		SWP7.8-3 Venting to be eliminated as far as reasonably practicable.		No venting was undertaken during the reporting period.
		SWP7.8-4 Leaks to be detected and repaired in accordance with the Code.		No wellhead leaks were detected during the reporting period.
				Total GHG emissions reported: 706 tCO₂e.
8	No significant impact to threatened fauna, their habitat	SWP7.9-1 Injury to fauna and stock during the conduct of the activity will be minimised.	Compliant	No recordable or reportable incidents were recorded during this activity that indicated injury to fauna or livestock.
	and sites of conservation significance during the DST program.	SWP7.9-2 All pest and feral animal records will be maintained.		No recordable or reportable incidents were recorded during this activity that indicated the introduction of pest species.
9	Social environment and access management	SWP7.10-1 No complaints from identified stakeholders during conduct of the regulated activity.	Compliant	On 24 April 2023, DEPWS notified the interest holder that they had received two complaints of unlawful discharge of wastewater from the Marverick-1 lease pad. The complaints were received by the department on 14 and 18 April



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
	No significant adverse impacts to community as a result of conduct			2023. A third complaint about the same issue was received by DEPWS on 24 April 2023.
	of the regulated activity.			<ul> <li>The incidents were raised in 2 subsequent ABC 730 report dated 22 May 2023 and August 24 2023.</li> </ul>
				Tamboran has provided multiple lines of evidence a to the regulator and ABC to support the fact that there have been no releases of wastewater from the site to the surrounding environment and that the interest holder has not engaged in any prohibited wastewater discharge activities.
				<ul> <li>This environmental performance standard has been marked compliant as no allegations have been proven.</li> </ul>
		SWP7.10-2 No complaints from the wider community in regard to traffic management during conduct of the regulated activity.	Compliant	<ul> <li>No complaints received pertaining to traffic, visual amenity, noise or nuisance under this EMP.</li> <li>Contractor obligations included in inductions and</li> </ul>
		SWP7.10-3 All contractors informed of regulatory obligations in relation to the regulated activity in tendering information.		contracts as relevant.
		SWP7.10-4 No complaints from the wider community in regard to visual amenity, noise or nuisance during conduct of the regulated activity.		



#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
10	No significant impact to Indigenous and non-Indigenous artefacts, Aboriginal Sacred Sites, and non-Indigenous heritage sites.      Protection of culture.	<ul> <li>SWP7.11-1 No unauthorised activities within or access to a Restricted Work Area or Sacred Site.</li> <li>SWP7.11-2 No unapproved impact to known archaeological sites</li> </ul>	Compliant	No non-compliance with restricted work areas, sacred sites AAPA certificate conditions or impacts to known archaeological sites were recorded.



## 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, the interest holder has also confirmed that all records, monitoring or required reporting under the Regulations<sup>2</sup> 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.	Compliant	Geospatial data/files provided to DEPWS 6 January 2023.
2	Code A.3.6 (b)	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	Compliant	Weed surveys were completed in November 2022 and late May 2023.
				<ul> <li>A pre-wet season survey is scheduled for the week of 23         November 2023, after the first rain to survey for juvenile         plants and apply immediate treatments. The survey will be         undertaken with the DEPWS Onshore Petroleum Weed             Management Officer.     </li> </ul>
				Weed declarations were provided for all vehicles, equipment and machinery moving to EP 136.
				Personnel inductions include specific requirements around weed hygiene.
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	<ul> <li>Fire management plan implemented.</li> <li>No uncontrolled fires occurred or were reported during the exploration activities.</li> </ul>

<sup>&</sup>lt;sup>2</sup> Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11(2).



#	Reference	Requirement	Compliance Status	Evidence
				Annual fire frequency report submitted to DEPWS on 27     September 2023. According to the NAFI website, no fires were recorded in the vicinity of EP 136 between 2022 – 2023.
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 longer than 12 months following the cessation of activities on the land. It also requires regular maintenance and annual monitoring of rehabilitated areas.	Not applicable	Rehabilitation has not commenced at the site.      The Maverick-1 site remains in care and maintenance pending further exploration activities. As such the auditable success criteria have not changed from those provided in the approved EMP, Appendix J.
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):  a) total volume of hydraulic fracturing fluid pumped,  b) 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  c) typical and maximum concentrations of chemicals or other substances used.	Not applicable	The Maverick T436 A1-1 well has not undergone hydraulic fracturing.
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	The Maverick T436 A1-1 well has not undergone hydraulic fracturing.



#	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.	Compliant	WBIV submitted to DITT on 23 November 2022.
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	<ul> <li>The Maverick T436 A1-1 well is cased and suspended, with the rig released on 22 October 2022. Email advice issued to DITT on 1 November 2022.</li> <li>WBIV submitted to DITT on 23 November 2022.</li> </ul>
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.	Compliant	<ul> <li>Stimulation has not occurred on the Maverick T436 A1-1 well, with all monitoring considered baseline</li> <li>Groundwater monitoring has been completed in accordance with the <i>Preliminary guidelines for groundwater monitoring bore for exploration petroleum wells in the Beetaloo subbasin</i>.</li> <li>Water extraction levels reported and submitted to DEPWS at least monthly via WALAPs.</li> </ul>
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 that includes the requirements of the Code.
11	Code C.6.1(d)	Wastewater tracking documentation must be reported to the Minister at least annually in accordance with the framework provided in the EMP.	Compliant	<ul> <li>No wastewater has been transferred off site during the reporting period.</li> <li>All wastewater tracking reported weekly.</li> </ul>



#	Reference	Requirement	Compliance Status	Evidence
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.	Compliant	Waste management plan includes a monitoring program to detect impacts from wastewater storages on fauna and human receptors.
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	This condition is associated with a larger field development program.
14	Code D.5.9.2(c)	Emissions from exploration, well construction (including during flowback) and workovers must be measured and reports submitted.	Compliant	<ul> <li>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.</li> <li>No venting was undertaken during the reporting period.</li> <li>No wellhead leaks were detected during the reporting period.</li> <li>Total GHG emissions reported: 706 tCO<sub>2</sub>e.</li> </ul>
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 natural gas vented for flared during the reporting period.
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.
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	Compliant	The annual emissions report was submitted to DEPWS on 27 September 2023. Minor amendments were requested by



#	Reference	Requirement	Compliance Status	Evidence
		provided separately to the Northern Territory Government in accordance with this Code.		<ul> <li>DEPWS, and the amended report was submitted on 4 October 2023.</li> <li>No venting was undertaken during the reporting period.</li> <li>No wellhead leaks were detected during the reporting period.</li> <li>Total GHG emissions reported: 706 tCO<sub>2</sub>e.</li> </ul>
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.	Compliant	<ul> <li>One (1) reportable incidents was record been recorded during the reporting period.</li> <li>Reportable incident 28 November 2022: Reportable incident associated with a stormwater release from the Maverick 1 site due to bunding failure.</li> </ul>
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.  A final report must be provided to DEPWS within 30 days after remediation/clean-up of the affected area.	Compliant	Reportable incident 28 November 2022: Reportable incident associated with a stormwater release from the Maverick 1 site.
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:  • Q3 2022 report (ending September 2022)



#	Reference	Requirement	Compliance Status	Evidence	
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	<ul> <li>Q4 2022 report (ending December 2022)</li> <li>Q1 2023 report (ending March 2023)</li> <li>Q2 2023 report (ending June 2023)</li> <li>Q3 2023 report (ending September 2023)</li> <li>The Maverick T436 A1-1 well has not undergone hydraulic fracturing.</li> </ul>	
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	<ul> <li>The Maverick T436 A1-1 well has not undergone hydraulic fracturing.</li> </ul>	
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.	Compliant	<ul> <li>Land access agreements are in place covering all current and future activities.</li> <li>Stakeholder engagement with immediately affected parties is ongoing, with the frequency of the engagement dependent on the level of activity being completed onsite at a given point of time.</li> </ul>	
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.	Compliant	<ul> <li>Persons were notified as follows:</li> <li>Minister for the Environment – 26 August 2022(via DEPWS)</li> <li>Minister for Resources 16 August 2022 (via DITT)</li> <li>Tanumbirini pastoralist notified by email on 8 August 2022 and via online video meeting held on 15 August 2022, advising the upcoming entry to conduct drilling activity.</li> </ul>	



#	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	Compliant	<ul> <li>One (1) reportable incident was record been recorded during the reporting period.</li> <li>Reportable incident 28 November 2022, associated with a stormwater release from the Maverick 1 site. This incident was reported based on potential, with no actual environmental harm detected.</li> <li>Incident was reported within 24 hours of becoming aware.</li> </ul>
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	Compliant	<ul> <li>One (1) reportable incident was record been recorded during the reporting period.</li> <li>Reportable incident 28 November 2022, associated with a stormwater release from the Maverick 1 site. This incident was reported based on potential, with no actual environmental harm detected.</li> <li>Incident was reported within 24 hours of becoming aware.</li> </ul>



#### 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 Drilling, HFS & Well Testing EMP compliance summary

Compliance Indicator	Number	Percentage <sup>1</sup>
Compliant	42	93%
Not Compliant	3	7%
Not Applicable	17	N/A

<sup>&</sup>lt;sup>1</sup> Excludes NA compliances

### 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

There were no non-compliances with Ministerial conditions observed during the reporting period.

## 3.2.2 Environmental performance standards

## 3.2.2.1 Description

There were three (3) non-compliances with the interest holder's environmental outcomes and performance standards were observed during the reporting period. These non-compliances were associated with the two (2) recordable and 1 reportable incident that occurred during the reporting period.

On 1 October 2022 Tamboran reported two recordable incidents:

- an exceedance of the freeboard in the sump on day 1 of the wet season as per the Code, and
- use of low EC water for dust suppression a non-authorised activity under the EMP or wastewater management plan.

Corrective actions included updating procedures and induction material to include greater detail around wastewater management and a focus on seeking guidance to support operational decision-making; implementation of an environmental work instruction process where the obligations are summarised and implementation strategy defined for future work; implementation of a compliance management system with nominated accountabilities; updates to the wastewater management plan to include the use of low EC drilling wastewater for dust suppression.



On 28 November 2022, Tamboran notified DEPWS of a reportable incident involving the release of stormwater from the lease pad via compromised bunding. Tamboran completed extensive site remediation works to bring the lease pad up to a standard that ensures the prevention of further non-compliances. Remediation works included, the installation of an additional sediment basin, improved site drainage to improve flow compartmentalisation, installation of additional rock check drains and, repair and upgrade of all earthen bunds onsite.

## 3.2.3 Regulatory reporting

## 3.2.3.1 Description

There were no non-compliances with a regulatory reporting conditions observed during the reporting period.

## 3.3 Application of lessons learned across the interest holder's onshore interests

The lessons learnt during the reporting period are as follows:

- The interest holder has three (3) EMPs with multiple reporting requirements. Implementing a
  system to track obligation due dates and detailed data criteria is critical to ensure reporting
  obligations are not missed or excluded from data collection. The TRAC system is currently being
  implemented, which will drive efficiencies and the prevention of non-compliances in the future.
- The remediation works completed on the site significantly reduce the potential for the site to be vulnerable to future incidents. Remediation works included the installation of an additional sediment basin, improved site drainage to improve flow compartmentalisation, installation of additional rock check drains and, repair and upgrade of all earthen bunds onsite.
- Administrative controls include updates to procedures, induction material, and management plans
  to include greater detail around wastewater management and a focus on seeking guidance to
  support operational decision-making.