

Approval notice and statement of reasons

Petroleum (Environment) Regulations 2016 (NT) (Regulations)

Interest holder	Imperial Oil & Gas Pty Ltd ABN 92 002 699 578
Petroleum interest/s	EP187
Environment management plan (EMP) title	Imperial 2020 Drilling Program NT Exploration Permit (EP) 187
EMP document reference	IMP2-04
DENR EMP assessment document reference	NTEPA2019/0101-011~0002
Regulated activity	Drilling: construction of two wells and associated civil works (access tracks, well pads and accommodation camp).
Is the EMP a new plan submitted under reg 6 or a revision of a current plan submitted in accordance with reg 15?	New plan submitted under regulation 6
Was the regulated activity referred ¹ for consideration whether an environmental impact statement or public environmental report was required?	Yes, in accordance with the <i>Environmental Assessment Act 1982</i>
Was an environmental impact statement or public environmental report required?	No NT EPA decision of 6 January 2020 NTEPA2019/0101-003~0006
Has an Authority Certificate under the <i>Northern Territory Aboriginal Sacred Sites Act 1989</i> (NT) (NTASSA) been issued for the regulated activity?	Yes Authority Certificate RA2019/112
Date an EMP compliant with reg 8 was first submitted under reg 6	22 August 2019
Dates within which the EMP was published for comment under reg 8A, if applicable	23 August to 20 September 2019
Date further information was required and submitted under reg 10, if applicable	Date required 20 September 2019; date submitted 11 October 2019 (IMP2-03) Date required 5 November 2019; date submitted 11 November 2019 (IMP2-04)
Date of resubmission notice under reg 11(2)(b), if applicable	N/A
Date EMP was resubmitted under reg 11(3), if applicable	N/A
Date a notice setting out a proposed timetable for consideration of the EMP was issued under reg 11(2A) if applicable	N/A
Proposed timetable given in notice under reg 11(2A) if applicable	N/A
Where provided under s29B of the <i>Northern Territory Environment Protection Authority Act 2012</i> (NT) (NT EPA Act), the dates the Northern Territory Environment Protection Authority (NT	Date of Minister's request for advice: 25 February 2019 Date of NT EPA Advice: 6 January 2020

¹ This means a referral under the *Environmental Assessment Act 1982* (NT) or the *Environment Protection and Biodiversity Conservation Act 1994* (Cth) (EPBC Act).

EPA) was requested to, and provided, advice on
EMP

Date of decision

2 / 3 / 2020

Decision maker



Signature

Hon Eva Dina Lawler MLA, Minister for
Environment and Natural Resources

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1. The EMP is approved. reg 11(2)(a)
2. The approval is subject to the following conditions: reg 12(2)

Condition 1: On selection of the final locations of the two well sites, the Interest Holder must provide to DENR, at least four weeks prior to commencement of the regulated activity:

- i. a detailed map showing the final location of the two wells
- ii. a geotechnical assessment report for the final locations of the two well sites, developed by a suitably qualified independent person, that:
 - includes results of 60cm soil cores, taken at three sites across the well pad area for analysis of particle size distribution;
 - determines the amount of excavation and quantity of surface material that will be required to be stripped at the well pad to ensure a stable base;
 - determines stockpiling requirements of stripped material; and
 - determines the amount of suitable gravel material required to build the well pad.

Condition 2: The Interest Holder must provide to DENR:

- i. monthly data on groundwater use until the activity is completed
- ii. data from a minimum of eight groundwater quality sampling events from RN039574 and RN027848 bores prior to completion of the drilling program.

Condition 3: The Interest Holder must provide to DENR within three months of completion of the regulated activity:

- i. high resolution imagery of the disturbance footprint
- ii. a digital aerial photograph or UAV imagery of the disturbed area, orthorectified using ground control points measured using a differential GPS (DGPS) and spatial accuracy of approximately 1-2m
- iii. a spatial assessment report on the disturbance footprint for the approved regulated activity.

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Condition 4: In addition to the minimum methane leak detection inspection frequencies required by the Code, the Interest Holder must undertake methane leak detection within seven (7) days of commissioning equipment that is in hydrocarbon service and under pressure and record to an auditable standard.

Condition 5: The Interest Holder must provide to DENR a cementing report for the 13-3/8" and 9 5/8" casing strings as soon as practicable but not more than 14 days after completion of the cementing job for Imperial exploration wells on EP 187.

2 Material considered

1. The following material has been taken into account in making this decision:
 - a. Imperial Oil & Gas 2020 Drilling Program NT Exploration Permit (EP) 187, IMP2-04, dated 11 November 2019.
 - b. The principles of ecologically sustainable development set out in reg 4 and the approval criteria.
 - c. The NT EPA decision and Statement of Reasons under the *Environmental Assessment Act 1982* relating to the regulated activity not requiring assessment.
 - d. The NT EPA advice provided at my request under s29B of the *Northern Territory Environment Protection Act 2012*.
 - e. The Authority Certificate issued under the *Northern Territory Aboriginal Sacred Sites Act 1989* and associated response provided by the Aboriginal Areas Protection Authority.
 - f. The Code of Practice: Onshore Petroleum Activities in the Northern Territory (Code) as set out in reg 4A.
 - g. All public comments submitted under reg 8B.

3 Statement of reasons

1. The EMP meets the approval criterion in reg 9(1)(a), because it contains all the information required by Schedule 1 of the Regulations. reg 9(1)(a)
2. The EMP meets the approval criterion in reg 9(1)(b) for the following reasons: reg 9(1)(b)
 - a. The nature of the regulated activity is as follows:

Drilling two vertical gas wells, clearing up to 17 ha of vegetation for creation of the well pad area/s, the creation and/or upgrade of access tracks to the well pads from the Carpentaria highway, and the expansion and upgrade of an existing roadside campsite. The program is anticipated to take a maximum of 80 days and will occur during the dry season in 2020.

 - i. The regulated activity does not include seismic survey, hydraulic fracturing or appraisal of a petroleum exploration well.
 - ii. The regulated activity will use less than 5 ML/year of groundwater for the exploration permit area, and is outside a Water Control District. As a result, the regulated activity does not require a Groundwater Extraction Licence. No surface water will be used for the activity.
 - b. The scale of the regulated activity is as follows:
 - i. The drilling of SL3 and SL4 vertical wells to 2100m Total Vertical Depth; well evaluation (including Formation Integrity Test (FIT), mudlogging, wireline, Cement Bond Logging (CBL), Diagnostic Fracture Injection Testing (DFIT) leak-off, coring, suspension; plugging and decommissioning of SL3 and SL4 wells; care and maintenance. The creation of two well pads and/or upgrade of access tracks to the well pads from the Carpentaria Highway; and upgrade of an existing accommodation campsite.
 - ii. The interest holder has estimated the regulated activity will generate greenhouse gas emissions of approximately 4200 tonnes of carbon dioxide

equivalent (tCO₂-e), comprising approximately 3300 tCO₂-e generated from land clearing and 900 tCO₂-e generated from diesel combustion.

- c. The EMP contains an appropriate level of detail for the nature and scale of the activities proposed. The regulated activity is clearly described in the EMP. The description of the existing environment is informed by adequate baseline surveys from 2015 and 2018, with additional opportunistic surveys undertaken where possible as well as desktop analysis from a range of information sources. The description of the existing subsurface environment is informed by adequate seismic studies and is understood. The identification of environmental impacts and risks contains a sufficient level of detail to inform an assessment of the environmental impacts and risks. The EMP provides detail on environmental outcomes and performance standards, implementation strategy, personnel, emergency response plan, stakeholder engagement, legislative requirements, recording, monitoring, reporting and notifications to an appropriate level of quality and applicability.
 - d. Having regard to the above, the information in the EMP is appropriate for the nature and scale of the regulated activity to which it relates.
3. The EMP meets the approval criterion in reg 9(1)(c) for the following reasons: reg 9(1)(c)
- a. I have considered reg 4(d) (which requires that I give fundamental consideration to the conservation of biological diversity and ecological integrity) as follows:
 - i. I believe the information I have regarding the existing biodiversity and ecosystems that are to be affected by the regulated activity; the effects that are likely; and the mitigation measures reasonably available, is sufficient.
 - ii. The regulated activity poses a low risk to the ecosystem within the Sturt Plateau bioregion or the Gulf Falls and Uplands bioregion. Given the relatively small area of impact (17 ha for this regulated activity and 72 ha in total including the 2D Seismic Works Program approved via a separate EMP), and the very large area of similar habitat within the region, the regulated activity does not pose a significant risk to any regional populations of threatened species. Six threatened species were identified as potentially occurring in the area. Due to the management strategies outlined in the EMP, the short period of activity, and the small area of impact it is unlikely that the regulated activity will pose a risk to the identified threatened species or exacerbate key threatening processes. Impacts and risks to flora, fauna, and ecosystems have been mitigated to an acceptable level.
 - iii. The conservation of biological diversity and ecological integrity is vital to the achievement of ecologically sustainable development. Given the fundamental nature of this consideration, I have given central importance to the conservation of biodiversity and ecological integrity in weighing whether I am satisfied the approval criterion in reg 9(1)(c) has been met.
 - iv. If carried out in accordance with the EMP, the regulated activity is not considered to have an impact on the conservation of biological diversity. The EMP outlines measures to minimise impacts on affected environmental values. The potential impacts and risks of the drilling and associated civil work activities identified in the EMP do not pose a significant risk to threatened species at a population level due to the low likelihood of threatened species inhabiting the area and implementation of control measures to avoid impacts to fauna. The EMP outlines measures to minimise impacts on flora and fauna, in accordance with the Code.

- v. Where relevant, management measures are consistent with the requirements of the Code and the Preliminary Guideline: Groundwater Monitoring Bores for Exploration Wells in the Beetaloo Sub-basin.
 - vi. If carried out in accordance with the EMP, the regulated activity is not considered to have an impact on the conservation of ecological integrity.
- b. I have considered reg 4(a) (which concerns the integration of long-term and short-term economic, environmental, social and equitable considerations) as follows:
- i. The expression *environment* as defined in the *Petroleum Act 1984* relevantly includes the well-being of humans, structures made or modified by humans, amenity values of an area and economic, social and cultural conditions. The requirements under the Regulations include stakeholder engagement and a broad consideration of the environmental impacts and environmental risks of the regulated activity in question. In making that broad consideration, the long-term and short-term environmental impacts and environmental risks were identified and assessed in the EMP.
 - ii. The regulated activity is low impact and of short duration (80 days plus rehabilitation) and forms one component of a broader onshore petroleum exploration program in the region. The EMP adequately assesses the environmental impacts and risks associated with the regulated activity and outlines appropriate avoidance and mitigation measures. This includes the assessment and management of social impacts and risks, including the appropriate management of cultural heritage. An Authority Certificate under the *Northern Territory Aboriginal Sacred Sites Act 1989* has been issued for the regulated activity. The interest holder has undertaken stakeholder engagement with the regional community, landholders and land managers, traditional owners, representatives of local government, the Manager for the McArthur gas pipeline, the Northern Land Council (NLC) and NT Government agencies, in accordance with the provisions outlined in regulations 7 and 9 of the Regulations and section 41(6) of the *Aboriginal Land Rights (Northern Territory) Act 1976 (Cth)*.
 - iii. The regulated activity has considered potential environmental impacts and risks and provided management measures and monitoring programs to protect environmental values in the short and long term.
 - iv. The regulated activity will use less than 5ML of groundwater per year and as a result is exempt from requiring a groundwater extraction licence. As a licence is not required under the *Water Act 1992*, I have imposed a condition requiring reporting of groundwater use.
 - v. The EMP is considered to have adequately assessed and integrated economic, social and environmental considerations.
 - vi. I observe that in carrying out the regulated activity there is no particular contest between economic, social and environmental considerations that requires further mention.
 - vii. Accordingly, I am satisfied that the concept of integration has been taken into account.
- c. I have considered reg 4(b) (which concerns the 'precautionary principle') as follows:
- i. The regulated activity does not pose a threat of serious or irreversible environmental damage which warrants the application of the precautionary principle.

- d. I have considered reg 4(c) (which concerns the principle of intergenerational equity) as follows:
- i. The environmental burdens of the regulated activity will not disproportionately affect particular stakeholders. The greenhouse gas emissions estimate from the regulated activity is 4200 tCO₂-e.² The combined cumulative greenhouse gas emissions estimate for the Imperial exploration program on EP187 is approximately 10,000 tCO₂-e is minimal in context of Northern Territory and Australian emissions and represent 0.06% of NT annual emissions.
 - ii. Cultural values will be protected through the application of an Authority Certificate issued to the interest holder under the *Northern Territory Aboriginal Sacred Sites Act 1989* and measures for reporting on discovery of archaeological sites. Accordingly I do not believe that the carrying out of the regulated activity in accordance with the EMP would have an effect contrary to the principle of intergenerational equity.
- e. I have considered reg 4(e) (which concerns the promotion of improved valuation, pricing and incentive mechanisms) as follows:
- i. In accordance with the 'polluter pays principle':
 - (1) The interest holder will cover the cost of remediation of the impacts of the regulated activity, as is set out in Section 7.3 of the EMP.
 - (2) If the interest holder fails to remediate the impacts, an environmental rehabilitation bond will be provided by the interest holder which is considered to be adequate to cover the resulting costs.
- f. No environmental report or statement has been required to be prepared in relation to the regulated activity. The NT EPA was not of the opinion that the regulated activity is capable of having a significant effect on the environment. reg 9(2)(b)
- g. The NT EPA has provided the following in relation to the regulated activity and the EMP:
- i. In accordance with my request under s29B of the NT EPA Act, the NT EPA reviewed the EMP for the regulated activity against the approval criteria in regulations 9(1)(b), 9(1)(c) and 9(2)(a) of the Petroleum (Environment) Regulations 2016 (Regulations) and other matters the NT EPA considered relevant, and has provided advice about the EMP. Relevantly:
 - (1) The NT EPA recommended that should the EMP be approved, it be subject to five conditions. The NT EPA's recommendations have informed the conditions of this approval.
 - (2) The NT EPA concluded that the EMP for the regulated activity, subject to the recommended approval conditions, is appropriate for the nature and scale of the regulated activity and demonstrates that the regulated activity can be carried out in a manner that environmental impacts and environmental risks of the activity will be reduced to a level that is as low as reasonably practical and acceptable.
 - ii. The content of the NT EPA's advice and recommendations have been incorporated into the comments in this statement of reasons and the conditions in the Approval Notice.

² NT and Australian GHG emissions in 2017 were approximately 16.5 million tonnes and 535 million tonnes, respectively, as reported in the DOEE (2019) *State and Territory Greenhouse Gas Inventories 2017*.

- h. The existing environment along with its particular values and sensitivities is appropriately identified in Section 4 of the EMP. reg 9(1)(c)
- i. The anticipated environmental risks are appropriately identified in Section 6 of the EMP.
- j. I agree with the risk assessment set out in Table 30 Section 6 of the EMP, and to the extent I do not agree I have imposed a condition or conditions to address the relevant risk or risks.
- k. The anticipated environmental impacts are appropriately identified in Section 6 of the EMP. The regulated activity is the second component of an exploration program on this EP and the combined cumulative effects have been identified and assessed for EP187. In EMPs for subsequent stages (if they proceed) the interest holder will need to continue to address cumulative effects including groundwater and greenhouse gas emissions.
- l. The EMP demonstrates how the interest holder will comply with the relevant requirements of the Code in undertaking this regulated activity. The risk assessment provided in the EMP cross references relevant sections of the Code that apply to the mitigation and management measures to enable the reviewer to identify and confirm that the proposed drilling activities comply with the Code. The EMP provides a Wastewater Management Plan, Spill Management Plan, Methane Emission Management Plan, Bushfire Management Plan and Emergency Response Plan, as well as specific petroleum well integrity criteria and monitoring programs that meet the requirements of the Code.
- m. I am satisfied the interest holder has conducted stakeholder engagement in accordance with the Regulations. Stakeholder engagement records (Appendix 2) demonstrates the issues raised by stakeholders about the environmental impacts of the proposed activity have been addressed by the Interest Holder
- n. DENR received four public submissions on the EMP, one from a community member and three from non-government organisations. Frequent comments raised in the public submissions were: concern about the quality of stakeholder engagement between Imperial Oil & Gas and traditional owners; climate change; impacts to water quality and quantity; protection of the environment; and regulatory changes in the Northern Territory.
- o. I have taken into account all public submissions in making my decision. I recognise the importance the community places on ensuring informed consent from traditional owners regarding the regulated activity and the protection of the Northern Territory's water resources.
- p. I am satisfied that the concerns and issues raised have been adequately mitigated and/or addressed in this EMP
- q. There are no environmental impacts or environmental risks relating to the proposed regulated activity which I consider to be unacceptable.
- r. Overall, having regard to the above, I am satisfied that the EMP demonstrates that the regulated activity is to be carried out in manner by which the environmental impacts and environmental risks are reduced to a level that is:
- i. as low as reasonably practicable; and
 - ii. acceptable.