

Permit

Environmental Protection Act 1994

Environmental Authority P-EA-100115311

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.

Environmental authority number: P-EA-100115311

Environmental authority takes effect 28 October 2021. This is the take effect date.

The anniversary date of this environmental authority is the same day each year as the take effect date. The payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name(s)	Registered address
Our Energy Group (Qld) Pty Ltd	395 Bronte Rd BRONTE NSW 2024

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 - 08 - A petroleum or GHG storage activity, other than items 1 to 7, that includes an activity from Schedule 2 with an AES	PFL30
Schedule 2 – 09 Hydrocarbon gas refining – refining in a year	PFL30

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days)

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

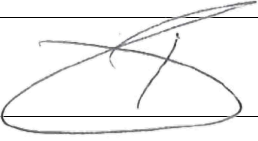
- a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority - on the nominated day; or
- b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or
- c) otherwise on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

The anniversary day of this environmental authority is the same day each year as the original take effect date unless you apply to change the anniversary day. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.



Signature

21 March 2022

Date

Tristan Roberts
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:

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Privacy statement

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access state controlled roads), the Department of Resources (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Obligations under the *Mining and Quarrying Safety and Health Act 1999*

If you are operating a quarry, other than a sand and gravel quarry where there is no crushing capability, you will be required to comply with the *Mining and Quarrying Safety and Health Act 1999*. For more information on your obligations under this legislation contact Mine Safety and Health at <https://www.rshq.qld.gov.au/>, or phone 13 QGOV (13 74 68) or your local Mines Inspectorate Office.

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. If you are unsure that you have the most current version of the environmental authority relating to this site please visit <https://apps.des.qld.gov.au/env-authorities/> to access all environmental authorities currently approved.

Conditions of environmental authority

General conditions			
Condition number	Condition		
General 1	Authorised activities This environmental authority authorises the construction and operation of a Micro-LNG facility within PFL30 to capture stranded and waste gas resources from the Kestrel Underground Coal Mine. This activity comprises of the petroleum activities and specified relevant activities listed in Table 1—Authorised Resource Activities to the extent they are carried out in accordance with the activity’s corresponding scale or intensity or both (where applicable).		
Table 1 – Authorised Resource Activities			
Authorised Resource Activities	Scale		Intensity
	Maximum	Location	
Petroleum activities			
Schedule 3; 8 - A petroleum activity or GHG storage activity , other than an activity mentioned in any items 1 to 7, that includes 1 more activities mentioned in schedule 2 for which an AES is stated	60m x 70m	PFL30	4.4 Tj/day
Schedule 2; 9 – Hydrocarbon Gas Refining - refining in a year, coal seam gas.	-		42.3 Million m³ / year
Specified relevant activities			
Inlet booster compressor	1 unit	PFL30	Fuel Use 72.5 m³/hr
ZPTS (gas filtration skid)	1 unit		N/A
Galileo Cryobox (cryogenic skid)	6 units		Fuel Use / unit 128.0 m³/hr
LNG Storage Tanks	8 units		330.6m³
Electrical Generator	1 unit		Fuel Use 158.3 m³/hr
Extraction well	1 well		N/A
Horizontal flare	1 unit		Upset only
Workshop, store and control room	1 building		N/A
Topsoil stockpile	1,000 m³		N/A
General 2	Prevent and minimise likelihood of environmental harm This authority does not authorise environmental harm unless a condition contained within this authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.		

General 3	This environmental authority does not authorise a relevant act ¹ to occur in carrying out an authorised relevant activity unless a condition of this environmental authority expressly authorises the relevant act to occur.
General 4	In carrying out petroleum activities the holder of this authority must prevent and minimise the likelihood of environmental harm being caused.
General 5	Maintenance of measures, plant and equipment The holder of this authority must: (a) Install measurements, plant and equipment necessary to ensure compliance with the conditions of this authority (b) maintain such measures, plant and equipment in a proper and efficient condition (c) operate such measures, plant and equipment in a proper and efficient manner.
General 6	All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this authority must be calibrated, appropriately operated and maintained.
General 7	The holder of this authority must ensure that daily operation and maintenance of all plant and equipment relating to the authorised petroleum activities are carried out by suitability qualified, competent and experienced person(s).
General 8	All plant and equipment must be maintained and operated in their proper and effective condition.
General 9	No change, replacement or alteration of any plant or equipment is permitted if the change, replacement or alteration increases the risk of environmental harm from the petroleum activities.
General 10	All monitoring must be undertaken by a <u>suitably qualified person</u> .
General 11	If requested by the <u>administering authority</u> in relation to investigating a valid complaint, monitoring must be commenced within 10 business days.
General 12	All laboratory analyses and tests must be undertaken by a laboratory that has <u>NATA accreditation</u> for such analyses and tests.
General 13	Notwithstanding condition (General 12), where there are no NATA accredited laboratories for a specific analyte or substance, then duplicate samples must be sent to at least two separate laboratories for independent testing or evaluation.
General 14	Monitoring and sampling must be carried out in accordance with the requirements of the following documents (as relevant to the sampling being undertaken), as amended from time to time: (a) for <u>waters</u> and aquatic environments, the Queensland Government's Monitoring and Sampling Manual 2009 – <i>Environmental Protection (Water) Policy 2019</i>

¹ See section 493A of the Act

	(b) for groundwater, <i>Groundwater Sampling and Analysis – A Field Guide</i> (2009:27 GeoCat #6890.1) (c) for noise, the Environmental Protection Regulation 2019 - the latest version of the administering authority's Noise Measurement Manual. (d) for air, the <i>Queensland Air Quality Sampling Manual</i> and/or Australian Standard 4323.1:1995 <i>Stationary source emissions method 1: Selection of sampling positions</i>, as appropriate for the relevant measurement (e) for soil, the <i>Guidelines for Surveying Soil and Land Resources, 2nd edition</i> (McKenzie et al. 2008), and/or the <i>Australian Soil and Land Survey Handbook, 3rd edition</i> (National Committee on Soil and Terrain, 2009) (f) for dust, <u>Australian Standard AS3580</u>.
General 15	In addition to the requirements under Chapter 7, Part 1, Division 2 of the <i>Environmental Protection Act 1994</i>, the administering authority must be notified through the Pollution Hotline and in writing, as soon as possible, but within 48 hours of becoming aware of any of the following events: (a) any unauthorised <u>significant disturbance to land</u> (b) potential or actual loss of <u>well integrity</u> (c) unauthorised releases of any volume of <u>prescribed contaminants</u> to waters (d) unauthorised releases of volumes of contaminants, in any mixture, to land greater than: i. 200 L of hydrocarbons. (e) monitoring results where two out of any five consecutive samples do not comply with the relevant limits in the environmental authority.
General 16	Petroleum activities involving significant disturbance to land cannot commence until the development of written contingency procedures for emergency environmental incidents which include, but are not necessarily limited to: (a) a clear definition of what constitutes an environmental emergency incident or near miss for the petroleum activity. (b) consideration of the risks caused by the petroleum activity including the impact of flooding and other natural events on the petroleum activity. (c) response procedures to be implemented to prevent or minimise the risks of environmental harm occurring. (d) the practices and procedures to be employed to restore the environment or mitigate any environmental harm caused. (e) procedures to investigate causes and impacts including impact monitoring programs for releases to waters and/or land. (f) training of staff to enable them to effectively respond. (g) procedures to notify the administering authority, local government and any potentially impacted landholder.

General 17	All specifically authorised discharge points to air must be signed with a unique reference name or number in such a way that it is clearly observable.
General 18	Measures to prevent fauna being harmed from entrapment must be implemented during the construction and operation of the activity.
General 19	For activities involving significant disturbance to land, <u>control measures</u> that are commensurate to the site-specific risk of erosion, and risk of sediment release to waters must be implemented to: (a) allow stormwater to pass through the site in a controlled manner and at non-erosive flow velocities (b) minimise soil erosion resulting from wind, rain, and flowing water (c) minimise the duration that disturbed soils are exposed to the erosive forces of wind, rain, and flowing water (d) minimise work-related soil erosion and sediment runoff; and (e) minimise negative impacts to land or properties adjacent to the activities (including roads).
General 20	Petroleum activities must not cause <u>environmental nuisance</u> at a <u>sensitive place</u> , other than where an <u>alternative arrangement</u> is in place.
General 21	<u>Certification</u> must be prepared by a suitably qualified person within 30 business days of completing every plan, procedure, program and report required to be developed under this environmental authority, which demonstrates that: (a) relevant material, including current published guidelines (where available) have been considered in the written document (b) the content of the written document is accurate and true; and (c) the document meets the requirements of the relevant conditions of the environmental authority.
General 22	All plans, procedures, programs, reports and methodologies required under this environmental authority must be written and implemented.
General 23	All <u>documents</u> required to be developed under this environmental authority must be kept for five years.
General 24	All documents required to be prepared, held or kept under this environmental authority must be provided to the administering authority upon written request within the requested timeframe.
General 25	A record of all complaints must be kept including the date, complainant's details, source, reason for the complaint, description of investigations and actions undertaken in resolving the complaint.
Waste conditions	

Condition number	Condition												
Waste 1	Measures must be implemented so that waste is managed in accordance with the <u>waste and resource management hierarchy</u> and the <u>waste and resource management principles</u> .												
Waste 2	Waste generated in the carrying out the activities must be stored, handled and transferred in a proper and efficient manner. Waste must not be released to the environment, stored, transferred or disposed contrary to any condition of this authority.												
Waste 3	The holder of this authority must ensure that all general waste produced from the conducting of the activities under this environmental authority is removed and disposed of at a facility that is permitted to accept such waste unless the waste is specifically authorised to be disposed of or used on site under this environmental authority.												
Waste 4	All regulated waste removed from the site must be removed by a person who holds a current authority to transport such waste under the provisions of the <i>Environmental Protection Act 1994</i> and sent to a facility that is permitted to accept such waste.												
Noise conditions													
Condition number	Condition												
Noise 1	Notwithstanding condition (General 20), emission of noise from the petroleum activity(ies) at levels less than those specified in Protecting acoustic values, Table 1—Noise nuisance limits are not considered to be environmental nuisance. Protecting acoustic values, Table 1—Noise nuisance limits <table><tr><th>Time period</th><th>Noise limit Gordon Downs Homestead $L_{Aeq,15}$ dB(A)</th><th>Noise limit sensitive places non mining lease $L_{Aeq,15}$ dB(A)</th></tr><tr><td>6:00am to 6:00pm</td><td>37</td><td>33</td></tr><tr><td>6:00pm to 10:00pm</td><td>33</td><td>30</td></tr><tr><td>10:00pm to 6:00am</td><td>28</td><td>28</td></tr></table>	Time period	Noise limit Gordon Downs Homestead $L_{Aeq,15}$ dB(A)	Noise limit sensitive places non mining lease $L_{Aeq,15}$ dB(A)	6:00am to 6:00pm	37	33	6:00pm to 10:00pm	33	30	10:00pm to 6:00am	28	28
Time period	Noise limit Gordon Downs Homestead $L_{Aeq,15}$ dB(A)	Noise limit sensitive places non mining lease $L_{Aeq,15}$ dB(A)											
6:00am to 6:00pm	37	33											
6:00pm to 10:00pm	33	30											
10:00pm to 6:00am	28	28											
Noise 2	Monitoring and subsequent analysis must provide: (a) determination of $L_{Aeq,15}$ mins for the LNG plant noise at the noise sensitive place (b) narrow band analysis and the noise ‘signature’ of the LNG plant to determine the contribution from the LNG plant to the total noise level at the noise sensitive place or commercial place; (c) the level and frequency of occurrence of impulsive or tonal noise; (d) taking measurements of the low frequency noise below 200 Hz; (e) atmospheric conditions including temperature, wind speed and direction; and (f) location, date and time of recording.												

Noise 3	If the noise subject to a <u>valid complaint</u> is tonal or <u>impulsive</u>, the adjustments detailed in Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors are to be added to the measured noise level(s) to derive $L_{Aeq, adj, 15 min}$. Protecting acoustic values, Table 2—Adjustments to be added to noise levels at sensitive receptors <table> <tr> <th>Noise characteristic</th><th>Adjustment to noise</th></tr> <tr> <td>Tonal characteristic is just audible</td><td>+ 2 dBA</td></tr> <tr> <td>Tonal characteristic is clearly audible</td><td>+ 5 dBA</td></tr> <tr> <td>Impulsive characteristic is detectable</td><td>+ 2 to + 5 dBA</td></tr> </table>	Noise characteristic	Adjustment to noise	Tonal characteristic is just audible	+ 2 dBA	Tonal characteristic is clearly audible	+ 5 dBA	Impulsive characteristic is detectable	+ 2 to + 5 dBA
Noise characteristic	Adjustment to noise								
Tonal characteristic is just audible	+ 2 dBA								
Tonal characteristic is clearly audible	+ 5 dBA								
Impulsive characteristic is detectable	+ 2 to + 5 dBA								
Noise 4	Notwithstanding condition (Noise 1), emission of any low frequency noise must not exceed either (a) and (b), or (c) and (d) in the event of a valid complaint about low frequency noise being made to the administering authority: (a) 60 dB(C) measured outside the sensitive receptor; and (b) the difference between the external A-weighted and C-weighted noise levels is no greater than 20 dB; or (c) 50 dB(Z) measured inside the sensitive receptor; and (d) the difference between the internal A-weighted and Z-weighted ($Max L_{pZ, 15 min}$) noise levels is no greater than 15 dB.								
Noise 6	Blasting is not authorised as part of this petroleum activity.								
Air conditions									
Condition number	Condition								
Air 1	Unless venting is authorised under the <i>Petroleum and Gas (Production and Safety) Act 2004</i> or the <i>Petroleum Act 1923</i>, waste gas must be flared in a manner that complies with all of (a) and (b) and (c), or with (d): (a) an automatic ignition system is used, and (b) a flame is visible at all times while the waste gas is being flared, and (c) there are no visible smoke emissions other than for a total period of no more than 5 minutes in any 2 hours, or (d) it uses an <u>enclosed flare</u>.								
Air 2A	A fuel burning or combustion facility must not be operated unless it is listed in Protecting air values, Table 1—Authorised point sources .								
Air 2B	If a fuel burning or combustion facility is listed in Protecting air values, Table 1—Authorised point sources , the fuel burning or combustion facility must be operated so that								

the releases to air do not exceed the limits specified in Protecting air values, Table 1—Authorised point sources at the specified release point reference.							
Protecting air values, Table 1—Authorised point sources							
Release Point	Source	Minimum Release Height (m)	Minimum Efflux Velocity ² (m / sec)	NOx as Nitrogen Dioxide		Carbon Monoxide	
				Maximum concentration (mg / Nm ³)	Maximum Mass emission rate (g / sec)	Maximum concentration (mg / Nm ³)	Maximum Mass emission rate (g / sec)
RP1	Inlet Booster	3.6	20	330	0.019	490	0.028
RP2	Electrical Generator	3.6	25	415	0.067	415	0.067
RP3	Cryobox 1	3.6	23	220	0.033	340	0.05
RP4	Cryobox 2	3.6	23	220	0.033	340	0.05
RP5	Cryobox 3	3.6	23	220	0.033	340	0.05
RP6	Cryobox 4	3.6	23	220	0.033	340	0.05
RP7	Cryobox 5	3.6	23	220	0.033	340	0.05
RP8	Cryobox 6	3.6	23	220	0.033	340	0.05
RP9	Flare	3.6	15	-	-	-	-
Air 3	Point source air monitoring for each fuel burning or combustion facility listed in Protecting air values, Table 1—Authorised point sources must: (a) be undertaken once: i. in the first three months after each facility is first commissioned, and then ii. every year thereafter (b) be carried out when the facility the subject of the sampling is operating under maximum operating conditions for the annual period; and (c) demonstrate compliance with the limits listed in Protecting air values, Table 1—Authorised point sources at each release point reference.						

² Note: Minimum velocity measured at 100% load.

Land conditions	
Condition number	Condition
Land 1	Contaminants must not be directly or indirectly released to land.
Land 2	<u>Top soil</u> must be managed in a manner that preserves its biological and chemical properties.
Land 3	Land that has been significantly disturbed by the petroleum activities must be managed to ensure that mass movement, gully erosion, rill erosion, sheet erosion and tunnel erosion do not occur on that land.
Land 4	<u>Acid sulfate soils</u> must be treated and managed in accordance with the latest edition of the <i>Queensland Acid Sulfate Soil Technical Manual</i> .
Land 5	Chemicals and fuels stored, must be effectively contained and where relevant, meet Australian Standards, where such a standard is applicable.
Land 6	Pipeline operation and maintenance must be in accordance, to the greatest practicable extent, with the relevant section of the APIA Code of Environmental Practice: Onshore Pipelines (2009).
Biodiversity conditions	
Condition number	Condition
Biodiversity 1	Prior to undertaking activities that result in significant disturbance to land in areas of native vegetation, confirmation of on-the-ground <u>biodiversity values</u> of the native vegetation communities at that location must be undertaken by a suitably qualified person. Any survey previously undertaken for the site, or a suitable analog site, by an existing underlying tenure holder is taken to satisfy this requirement, provided a copy of the report is held by the holder of this environmental authority.
Biodiversity 2	A suitably qualified person must develop and certify a methodology so that condition (Biodiversity 1) can be complied with and which is appropriate to confirm on-the-ground biodiversity values.
Biodiversity 3	<u>Significant residual impacts</u> to <u>prescribed environmental matters</u> are not authorised under this environmental authority or the <i>Environmental Offsets Act 2014</i> .
Water conditions	
Condition number	Condition

Water 1	Contaminants must not be released to any <u>waters</u> .
Water 2	Contaminants must not be released to groundwaters or at a location where they are likely to release to groundwaters.
Rehabilitation conditions	
Condition number	Condition
Rehabilitation 1	A Rehabilitation Plan must be developed by a suitably qualified person and must include the: (a) <u>rehabilitation</u> goals; and (b) procedures to be undertaken for rehabilitation that will: i. achieve the requirements of condition (Rehabilitation 2); and ii. provide for appropriate monitoring and maintenance.
Rehabilitation 2	<u>Significantly disturbed areas</u> that are no longer required for the on-going petroleum activities, must be rehabilitated within 12 months (unless an exceptional circumstance in the area to be rehabilitated (e.g. a flood event) prevents this timeframe being met) and be maintained to meet the following acceptance criteria: (a) contaminated land resulting from petroleum activities is remediated and rehabilitated (b) the areas are: i. non-polluting ii. a <u>stable</u> landform iii. re-profiled to contours consistent with the surrounding landform (c) surface drainage lines are re-established (d) top soil is reinstated; and (e) either: i. groundcover, that is not a <u>declared pest species</u>, is growing; or ii. an alternative soil stabilisation methodology that achieves effective stabilisation is implemented and maintained.
Rehabilitation 3	Conditions (Rehabilitation 2) continues to apply after this environmental authority has ended or ceased to have effect.
Well construction, maintenance and stimulation activities conditions	
Condition number	Condition
Well activities 1	Oil based or <u>synthetic based drilling muds</u> must not be used in the carrying out of the petroleum activity(ies).

Well activities 2	Drilling activities must not result in the connection of the target gas producing formation and another aquifer.
Well activities 3	Practices and procedures must be in place to detect, as soon as practicable, any fractures that have or may result in the connection of a target formation and another aquifer as a result of drilling activities.
Well activities 4	Stimulation activities are not permitted.

Definitions

Key terms and/or phrases used in this document are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Term	Definition
acid sulfate soil(s)	means a soil or soil horizon which contains sulfides or an acid soil horizon affected by oxidation of sulfides.
administering authority	means: (a) for a matter, the administration and enforcement of which has been devolved to a local government under section 514 of the <i>Environmental Protection Act 1994</i>—the local government; or (b) for all other matters—the Chief Executive of the Department of Environment and Science; or (c) another State Government Department, Authority, Storage Operator, Board or Trust, whose role is to administer provisions under other enacted legislation.
alternative arrangement	means a written agreement about the way in which a particular environmental nuisance impact will be dealt with at a sensitive place, and may include an agreed period of time for which the arrangement is in place. An alternative arrangement may include, but is not limited to, a range of nuisance abatement measures to be installed at the sensitive place, or provision of alternative accommodation for the duration of the relevant nuisance impact.
analogue site(s)	means an area of land which contains values and characteristics representative of an area to be rehabilitated prior to disturbance. Such values must encompass land use, topographic, soil, vegetation, vegetation community attributes and other ecological characteristics. Analogue sites can be the pre-disturbed site of interest where significant surveying effort has been undertaken to establish benchmark parameters.
appropriately qualified person / suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
areas of pre-existing disturbance	means areas where environmental values have been negatively impacted as a result of anthropogenic activity and these impacts are still evident. Areas of pre-disturbance may include areas where legal clearing, logging, timber harvesting, or grazing activities have previously occurred, where high densities of weed or pest species are present which have inhibited re-colonisation of native regrowth, or where there is existing infrastructure (regardless of whether the infrastructure is associated with the authorised petroleum activities). The term 'areas of pre-disturbance' does not include areas that have been impacted by wildfire/s, controlled burning, flood or natural vegetation die-back.
Australian Standard 3580	means any of the following publications: • AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter—Gravimetric method.

	- AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet—Gravimetric method - AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM10 low volume sampler—Gravimetric sampler.
background noise level	means the sound pressure level, measured in the absence of the noise under investigation, as the $L_{A90,T}$ being the A-weighted sound pressure level exceeded for 90% of the measurement time period T of not less than 15 minutes (or $L_{A 90, adj, 15 mins}$), using Fast response.
bed	of any waters, has the meaning in Schedule 19 of the Environmental Protection Regulation 2019 and— (a) includes an area covered, permanently or intermittently, by tidal or non-tidal waters; but (b) does not include land adjoining or adjacent to the bed that is from time to time covered by floodwater.
biodiversity values	for the purposes of this environmental authority, means environmentally sensitive areas, prescribed environmental matters and wetlands.
Category A Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1, section 1 of the Environmental Protection Regulation 2019.
Category B Environmentally Sensitive Area	means any area listed in Schedule 19, Part 1 section 2 of the Environmental Protection Regulation 2019.
Category C Environmentally Sensitive Area	means any of the following areas: - nature refuges as defined in the conservation agreement for that refuge under the <i>Nature Conservation Act 1992</i> - koala habitat areas as defined under the Nature Conservation (Koala) Conservation Plan 2006 - state forests or timber reserves as defined under the <i>Forestry Act 1959</i> - regional parks (previously known as resource reserves) under the <i>Nature Conservation Act 1992</i> - an area validated as 'essential habitat' from ground-truthing surveys in accordance with the <i>Vegetation Management Act 1999</i> for a species of wildlife listed as endangered or vulnerable under the <i>Nature Conservation Act 1992</i> 'of concern regional ecosystems' that are remnant vegetation and identified in the database called 'RE description database' containing regional ecosystem numbers and descriptions.
control measure	has the meaning in section 32 of the <i>Environmental Protection Regulation 2019</i> and means a device, equipment, structure, or management strategy used to prevent or control the release of a contaminant or waste to the environment.
document	has the meaning in the <i>Acts Interpretation Act 1954</i> and means: any paper or other material on which there is writing; and

	- any paper or other material on which there are marks; and - figures, symbols or perforations having a meaning for a person qualified to interpret them; and - any disc, tape or other article or any material from which sounds, images, writings or messages are capable of being produced or reproduced (with or without the aid of another article or device).
enclosed flare	means a device where the residual gas is burned in a cylindrical or rectilinear enclosure that includes a burning system and a damper where air for the combustion reaction is admitted.
environmental harm	has the meaning in section 14 of the <i>Environmental Protection Act 1994</i> and means any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance. Environmental harm may be caused by an activity— (a) whether the harm is a direct or indirect result of the activity; or (b) whether the harm results from the activity alone or from the combined effects of the activity and other activities or factors.
environmental nuisance	has the meaning in section 15 of the <i>Environmental Protection Act 1994</i> and means unreasonable interference or likely interference with an environmental value caused by— (a) aerosols, fumes, light, noise, odour, particles or smoke; or (b) an unhealthy, offensive or unsightly condition because of contamination; or (c) another way prescribed by regulation.
environmentally sensitive area	means Category A, B or C environmentally sensitive areas (ESAs)
fuel burning or combustion facility	means a permanent fuel burning or combustion equipment which in isolation, or combined in operation, or which are interconnected, is, or are capable of burning more than 500 kg of fuel in an hour.
impulsive (for noise)	means sound characterised by brief excursions of sound pressure (acoustic impulses) that significantly exceed the background sound pressure. The duration of a single impulsive sound is usually less than one second.
LA 90, adj, 15 mins	means the A-weighted sound pressure level, adjusted for tonal character that is equal to or exceeded for 90% of any 15 minutes sample period equal, using Fast response.
LAeq, adj, 15 mins	means the A-weighted sound pressure level of a continuous steady sound, adjusted for tonal character, that within any 15 minute period has the same square sound pressure as a sound level that varies with time.
Land	means the solid substance of the earth's surface.
linear infrastructure	means powerlines, pipelines, flowlines, roads and access tracks.
liquid	means a substance which is flowing and offers no permanent resistance to changes of shape.

Max L _{pA} , 15 min	means the absolute maximum instantaneous A-weighted sound pressure level, measured over 15 minutes.
Max L _{pZ} , 15 min	means the maximum value of the Z-weighted sound pressure level measured over 15 minutes.
methodology	means the science of method, especially dealing with the logical principles underlying the organisation of the various special sciences, and the conduct of scientific inquiry.
month	has the meaning in the <i>Acts Interpretation Act 1954</i> and means a calendar month and is a period starting at the beginning of any day of one (1) of the 12 named months and ending— - immediately before the beginning of the corresponding day of the next named month; or - if there is no such corresponding day—at the end of the next named month.
NATA accreditation	means accreditation by the National Association of Testing Authorities Australia.
prescribed environmental matters	has the meaning in section 10 of the <i>Environmental Offsets Act 2014</i> , limited to the matters of State environmental significant listed in schedule 2 of the Environmental Offsets Regulation 2014.
prescribed contaminants	has the meaning in section 440ZD of the <i>Environmental Protection Act 1994</i> and means:
regional ecosystem	has the meaning in the Methodology for Surveying and Mapping of Regional Ecosystems and Vegetation Communities in Queensland (Version 3.2 August 2012) and means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil. Regional ecosystems of Queensland were originally described in Sattler and Williams (1999). The Regional Ecosystem Description Database (Queensland Herbarium 2013) is maintained by Queensland Herbarium and contains the current descriptions of regional ecosystems.
rehabilitation or rehabilitated	means the process of reshaping and revegetating land to restore it to a stable landform and in accordance with acceptance criteria and, where relevant, includes remediation of contaminated land. For the purposes of pipeline rehabilitation, rehabilitation includes reinstatement, revegetation and restoration.
reinstate or reinstatement	for pipelines, means the process of bulk earth works and structural replacement of pre-existing conditions of a site (i.e. soil surface typography, watercourses, culverts, fences and gates and other landscape(d) features) and is detailed in the Australian Pipeline Industry Association (APIA) Code of Environmental Practice: Onshore Pipelines (2013).
reporting limit	means the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes, the reporting limit is selected as the lowest non-zero standard in the calibration curve. Results that fall below the reporting limit will be reported as “less than” the value of the reporting limit. The reporting limit is also referred to as the practical quantitation limit or the limit of quantitation. For polycyclic aromatic hydrocarbons, the reporting limit must be based on super-ultra trace methods and, depending on the specific polycyclic aromatic hydrocarbon, will range between 0.005 ug/L–0.02 ug/L.
restoration	means the replacement of structural habitat complexity, ecosystem processes, services and function from a disturbed or degraded site to that of a pre-determined or <u>analogue</u>

	site. For the purposes of pipelines, restoration applies to final rehabilitation after pipeline decommissioning.
revegetation or revegetating or revegetate	means to actively re-establish vegetation through seeding or planting techniques in accordance with site specific management plans.
sensitive place	means: • a dwelling (including residential allotment, mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel) • a library, childcare centre, kindergarten, school, university or other educational institution • a medical centre, surgery or hospital • a protected area • a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment • a work place used as an office or for business or commercial purposes, which is not part of the petroleum activity(ies) and does not include employees accommodation or public roads • for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.
sensitive receptor	is defined in Schedule 2 of the Environmental Protection (Noise) Policy 2019, and means an area or place where noise is measured.
significant residual impact	has the meaning in section 8 <i>Environmental Offsets Act 2014</i> .
significantly disturbed or significant disturbance or significant disturbance to land or areas	means Land is <i>significantly disturbed</i> if– (a) it is contaminated land; or (b) it has been disturbed and human intervention is needed to rehabilitate it– (i) to a condition required under the relevant environmental authority; or (ii) if the environmental authority does not require the land to be rehabilitated to a particular condition—to the condition it was in immediately before the disturbance. Without limiting subsection (1)(b), land requires human intervention to rehabilitate it if– (a) the disturbance has made the land more susceptible to erosion; or (b) the land use capability or suitability of the land is diminished; or (c) the quality of water in a watercourse downstream of the land has been significantly reduced.
stable	means the rehabilitation and <u>restoration</u> of the site is enduring or permanent so that the site is unlikely to collapse, erode or subside.

suitably qualified person	means a person who has professional qualifications, training or skills or experience relevant to the nominated subject matters and can give authoritative assessment, advice and analysis about performance relevant to the subject matters using relevant protocols, standards, methods or literature.
sump	means a pit in which waste residual drilling material or drilling fluids are stored only for the duration of drilling activities.
top soil	means the surface (top) layer of a soil profile, which is more fertile, darker in colour, better structured and supports greater biological activity than underlying layers. The surface layer may vary in depth depending on soil forming factors, including parent material, location and slope, but generally is not greater than about 300mm in depth from the natural surface.
valid complaint	means all complaints unless considered by the administering authority to be frivolous, vexatious or based on mistaken belief.
waste and resource management hierarchy	has the meaning provided in section 9 of the <i>Waste Reduction and Recycling Act 2011</i> and is the following precepts, listed in the preferred order in which waste and resource management options should be considered— (a) AVOID unnecessary resource consumption (b) REDUCE waste generation and disposal (c) RE-USE waste resources without further manufacturing (d) RECYCLE waste resources to make the same or different products (e) RECOVER waste resources, including the recovery of energy (f) TREAT waste before disposal, including reducing the hazardous nature of waste (g) DISPOSE of waste only if there is no viable alternative.
waste and resource management principles	has the meaning provided in section 4(2)(b) of the <i>Waste Reduction and Recycling Act 2011</i> and means the: (a) polluter pays principle (b) user pays principle (c) proximity principle (d) product stewardship principle.
watercourse	has the meaning in Schedule 4 of the <i>Environmental Protection Act 1994</i> and means: 1) a river, creek or stream in which water flows permanently or intermittently— (a) in a natural channel, whether artificially improved or not; or (b) in an artificial channel that has changed the course of the watercourse. 2) Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.
waters	includes all or any part of a creek, river, stream, lake, lagoon, swamp, wetland, spring, unconfined surface water, unconfined water in natural or artificial watercourses, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and underground water.
well integrity	the ability of a well to contain the substances flowing through it.

wetland	for the purpose of this environmental authority, wetland means: an area shown as a wetland on the map of Queensland Wetland Environmental Values. <i>Note: The Environmental Protection (Water and Wetland Biodiversity) Policy 2019 Schedule 2, Map of Queensland Wetland Environmental Values means the document 'Map of Queensland Wetland Environmental Values' made by the Chief Executive and published on the website.</i> <i>Environmental values in section 8 of the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 apply to wetland areas on the map, which are categorised as wetlands of high or general ecological significance.</i>
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END OF ENVIRONMENTAL AUTHORITY