

Notice

Environmental Protection Act 1994

Clean-up Notice

This clean-up notice is issued by the administering authority pursuant to section 363H of the Environmental Protection Act 1994 to advise you of a decision requiring you to take stated actions in regard to a contamination incident.

AUCTUS RESOURCES PTY LTD (ACN 136 606 338) (Externally Administered)

395 Lake Street

CAIRNS QLD 4870

Your reference: C-CPLRC-100403185; EPML00562913

Our reference: STAT-E-100520080

17 November 2023

Take notice: that under section 363H of the *Environmental Protection Act 1994* (the Act) a clean-up notice is issued to Auctus Resources Pty Ltd (ACN 136 606 338) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The clean-up notice is issued in respect to your activities on part of the land described as King Vol Underground Mine and situated at ML20658 (the premises).

A. Grounds

The clean-up notice is issued on the following grounds:

1. A contamination incident has occurred, being an incident involving contamination of the environment that the administering authority is satisfied has caused, or is likely to cause, serious or material environmental harm (363F of the Act).
2. You are a prescribed person for the contamination incident. Pursuant to section 363G of the Act each of the following is a prescribed person:
 - a. A person who caused or permitted the incident to happen;
 - b. A person who, at the time of the incident is or was the occupier of a place at or from which the incident is happening or happened;
 - c. A person who is the owner, or in control, of a contaminant involved in the incident.
3. The department reasonably considers that the stated actions (requirements) are necessary to assess the nature and extent of any environmental harm, or the risk of environmental harm from the incident, to keep the administering authority informed and to prevent or minimise contamination.

The facts and circumstances forming the basis for these grounds are:

1. You are the holder of Environmental Authority EPML00562913 (the EA) which authorises and regulates mining activities at the premises.



2. You are also the holder of ML20640, ML20658, ML4910, ML4911, ML4921, ML4928, ML4977, ML5176 and ML5319 which provides for right of access.
3. The premises known as the King Vol Underground Mine is located approximately 40km northwest of the Chillagoe townsite and approximately 250km west of Cairns.
4. The King Vol Underground Mine is currently in care and maintenance. To prevent groundwater inundation of underground mine workings, dewatering has continued from the underground mine during care and maintenance period.
5. Pit N Portal Mining Services Pty Ltd (PNP) operates the dewatering of the mine on behalf of Aurora Metals whilst in care and maintenance, where EA holder Auctus Resources is a wholly owned subsidiary of Aurora Metals.
6. The King Vol Underground Mine involves a top-down mining method with open stoping and pillars, with the mining reaching a depth of approximately 550 mRL. Mine infrastructure, within ML 20658, includes haul roads, run of mine (ROM) pad, and waste rocks (WRDs). Stopes were developed from a central decline on the eastern side of the resource and stoping was progressed sequentially from upper layers to lower layers upon the completion of each ore drive. Backfilling with waste rock was proposed, using potentially acid forming (PAF) waste preferentially over non-acid forming (NAF) waste.
7. On 20 March 2023, the department was notified that a release of contaminants had occurred following a vehicle refuelling incident on 19 March 2023, resulting in the discharge of approximately 10,000 litres of diesel fuel spilled within the ROM refuelling area (release event).
8. On 20 and 21 March 2023, in response to the vehicle refuelling incident, approximately 1200 tonnes of stockpiled material (of which approximately 900 tonnes were categorised as potentially contaminated with diesel) was placed in the underground mining area at the 750-south level of the mine, within a waste backfill stope, located approximately 160 m above the groundwater inflow zone.
9. The department was advised that the steps taken on site to contain the release event through placing the stockpiled material underground, were intended to help mitigate any potential adverse impact on the receiving environment (groundwater and surface water) due to interaction of the soil with any potential rainfall and runoff, during the wet season.
10. On 18 July 2023 PNP engaged NGH Consulting to develop a detailed scope of works to understand any potential risks to the environment associated with the stockpiled material at the 750-south level of the King Vol Underground Mine Site and to develop future strategies to control any potential harm to the environment.
11. On 27 July 2023 and in response to information obtained concerning the incident, the department identified and provided to PNP the following interests and matters for investigation:
 - a. Groundwater, including pre-mining groundwater levels, potential changes to groundwater levels following mining disturbance, description of local hydrogeological conditions, which the department understands to be complex, and a description of environmental values in the area (including stygofauna and any nearby groundwater users);
 - b. Surface waters, including any potential surface water connectivity to the site of the stockpiled material (i.e. from surface via the underground mining system) and potential for mobilisation to groundwater;
 - c. Fate of the contaminants of concern under various conditions likely to exist at the location;
 - d. Treatment and management options to minimise risk of release of contaminants to the receiving environment, including likely timeframes for fate of contaminants; and

- e. Risk assessment considering options for both treatment and management in-situ and at surface if the stockpiled material is removed, and considering final rehabilitation outcomes (safe, stable, non-polluting).
12. On 25 August 2023, you provided the '*King Vol — Groundwater and surface water scoping document KVL5000_001*' report (the scoping document) to the department, by Australasian Groundwater and Environmental Consultants Pty Ltd (AGE) dated 24 August 2023. The scoping document identified:
- a. Hydrogeology of the aquifers and groundwater of King Vol show high inflows and hydraulic conductivity, typically confined to the shallow fractured weathered zone (Limestone), where mine inflows at greater depths being less due to the low abundance of major water-making fracture zones or cavities observed below 100m.
 - b. Groundwater interacts with the underground workings at approximately the 590-north level and groundwater inflow is currently managed through care and maintenance pumping, preventing flooding of the underground mine workings.
 - c. Prior to mine development in 2008, the groundwater levels were estimated to be approximately 15 to 10 metres below ground level (at bores KVMB002A and KVMB002B) (SLR, 2021).
 - d. As the mine continues to actively dewater, there is minimal groundwater interaction with the backfilled stope at 750 south. However, if the pumping were to cease and groundwater levels allowed to recover, there could be a risk of contaminant migration. Further, water that infiltrates the underground workings closer to the surface (e.g., infiltrating runoff that may penetrate the decline or other vertical infrastructure) has a risk of interaction with the stockpiled material.
 - e. Three stages were identified for the investigation and management of the stockpiled material. Namely:
 - i. Stage 1: High level risk assessment
 - ii. Stage 2: Update of existing knowledge
 - iii. Stage 3: Detailed technical predictions for fate of contaminants.
13. On 13 October 2023, you provided further information to the department concerning the deliverables and timeframes associated with Stages 1 and 2 of the scoping document, with proposed completion dates of 27 October 2023 and 8 December 2023 respectively. The completion of Stage 3 being subject to the information obtained from Stages 1 & 2.
14. The department considers the spatial extent and impact of the stockpiled material underground on the receiving environment has not been delineated. Namely, the current and predicted area of impact, the severity of the contamination event, and the potential to cause environmental harm with respect to groundwater interaction.
15. Environmental harm is 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.
16. Under the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (EPP Water), all Queensland waters have prescribed environmental values and water quality objectives.
17. The environmental values and groundwater resources of the King Vol Mine area are located within the Mitchell River catchment and this area is not listed in Schedule 1 of the EPP Water, therefore the environmental values listed in section 6(2) of the EPP Water may apply. According to Groundwater Dependent Ecosystems Atlas (GDE Atlas), there are ecological areas within and in close proximity to the mining lease ML20658, that have medium and high potential for interaction with groundwater. The

areas include aquatic, terrestrial and subterranean ecosystems that may be partially dependent on groundwater.

18. Light non-aqueous phase liquids (LNAPLs) are organic liquids such as gasoline, diesel, and other petroleum hydrocarbon products that are immiscible with water and less dense than water. The placement of contaminated material is reasonably expected to have the potential to impact the relevant environmental values with LNAPL considered potentially to impact groundwater quality.

19. The department considers petroleum hydrocarbons to be a contaminant pursuant to section 11 of the Act:

A contaminant can be—
(a) a gas, liquid, or solid; or
(b) an odour; or
(e) a combination of contaminants.

20. The department considers petroleum hydrocarbons to be a prescribed water contaminant pursuant to Schedule 10 of the *Environmental Protection Regulation 2019*:

Item 1 - a chemical, or chemical waste containing a chemical.

Item 13 - oil, including, for example, petroleum or vegetable-based oil.

21. Under Schedule 4 of the Act, hazardous contaminant is defined as:

Hazardous contaminant means a contaminant, other than an item of explosive ordnance, that if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of-

- a) Its quantity, concentration, acute or chronic, toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity or flammability; or*
b) Its physical, chemical or infectious characteristics.

22. Petroleum products including diesel and unleaded petrol contain aromatic hydrocarbon compound contaminants including benzene, ethylbenzene, toluene, and xylenes which are toxic to aquatic life.

23. Petroleum hydrocarbon residues are contaminants that have potential to create health related impacts from vapour intrusion, contaminate groundwater sources, and impact on groundwater dependant plants and animals. Diesel entering soil and groundwater aquifers may significantly impact the environmental values of the groundwater and may cause environmental harm that will persist until remediated.

24. The department is reasonably satisfied that the stockpiled material contained within the stope has, or is likely to cause, material environmental harm (section 16 of the Act):

- a. that is not trivial or negligible in nature, extent or context; or
b. that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount but less than the maximum amount; or
c. that results in costs of more than the threshold amount but less than the maximum amount being incurred in taking appropriate action to— (i) prevent or minimise the harm; and (ii) rehabilitate or restore the environment to its condition before the harm.

25. You are considered to be a prescribed person for a contamination incident pursuant to section 363G of the Act.

26. Having considered the circumstances surrounding the release event and the stockpiled material, including the scoping document and additional information you provided to the department on 13 October 2023, the department considers:

- a. That the incident is appropriately characterised as a contamination incident, per section 363F of the Act; and

- b. You are a prescribed person for a contamination incident pursuant to section 363G of the Act; and
 - c. It is appropriate to issue you with a clean-up notice.
27. The department considers that it is appropriate to issue a Clean-up Notice with requirements for further investigations and actions to ensure impact to environment is assessed and remediated if determined to be appropriate.

B. Requirements

In accordance with this clean-up notice, you must carry out the following stated actions:

1. By **24 November 2023**, you must appoint and retain an independent **appropriately qualified person (AQP)** to assess:
 - i. The extent of impact caused by the release to the receiving environment, including water and groundwater monitoring for relevant parameters (including, but not limited to, hydrocarbons) with locations and frequency sufficient to delineate the extent of impact;
 - ii. The nature and extent of the environmental harm, or the rise of further environmental harm, from the concentrations of contaminants identified in the receiving groundwater environment following the release;
 - iii. The bioavailability of contaminants in stream and groundwater aquatic ecosystems should remobilisation to the groundwater occur;
 - iv. The current environmental risk affected by the contamination incident;
 - v. Whether any rehabilitation or restoration activities are recommended to mitigate or remedy the effects of the incident, and specific details on the works required; and
 - vi. Provide evidence of qualifications and experience of the AQP to the department.
2. By **8 December 2023**, you must provide the department with an update on the progress of the preparation of the report from the appointed AQP.
3. By **22 December 2023**, you must provide the department with a report prepared by the appointed AQP on the findings of the assessments outlined under Requirement 1 of this notice. The report must clearly outline if rehabilitation or restoration of the receiving environment is required (once delineated) and provide advice regarding the works required.
4. Any written notification or submission to the administering authority, as required by this notice, must be provided via email to estownsville@des.qld.gov.au and/or post to PO Box 5391 TOWNSVILLE, QLD 4810.

An **appropriately qualified person** is defined as *'a person who has professional qualifications, training, skills, and experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods, or literature'*.

Note:

- The requirements of the clean-up notice take effect immediately upon service of the notice.
- This notice remains in force until further notice from the administering authority.

- You may recover as a debt, from another person who caused or permitted the contamination incident to happen, the amount of loss or expense incurred by you in complying with the notice or extent to which you complied with the notice.

C. Appeal rights

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the Act. Internal review of the decision to issue a clean-up notice is not available however if you are dissatisfied with the decision to issue this clean-up notice, you can appeal against the decision in the Planning and Environment Court (the Court) within 22 business days after receiving the notice.

Information about initiating an appeal in relation to this notice is contained within the Internal Reviews and Appeals Information Sheet (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term).

After initiating an appeal, a dissatisfied person can apply to the Court to grant a stay of the decision to issue the clean-up notice, to secure the effectiveness of the appeal. In deciding whether to grant the stay for a clean-up notice, the court must have regard to:

- the quantity and quality of contamination of the environment that is likely to be caused if the stay is granted; and
- the proximity of the place at or from which the contamination incident is happening or happened to a place with environmental values that may be adversely affected by the contamination.

A person whose interests are or would be adversely affected by a decision of the department may be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

You may have other legal rights or obligations and should seek your own legal advice.

D. Public Register

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.

E. Penalties

It is important that you know the impact to you personally as an individual or as a corporation for not meeting your obligations.

Under 363I of the Act failing to comply with a clean-up notice is an offence unless you have a reasonable excuse.

If the offence is committed wilfully:

- The maximum penalty for contravening a clean-up notice is 6,250 penalty units, totalling \$898,437 or five years imprisonment for an individual, or \$4,492,185 for a corporation.

Otherwise:

- The maximum penalty for contravening a clean-up notice is 6,250 penalty units, totalling \$898,437 or five years imprisonment for an individual, or \$4,492,185 for a corporation.

Section 3 of the Penalties and Sentences Regulation 2015 prescribes the monetary value of a penalty unit.

If you fail to comply with the clean-up notice, an authorised person may also take any of the actions stated in the notice and the department may issue you a cost recovery notice under section 363N to recover from you the costs incurred in taking the actions.

Should you have any queries in relation to the notice, please contact Nicole Jarmey on email Nicole.Jarmey@des.qld.gov.au and telephone number (07) 4722 5322.



Signature

17/11/2023

Date

Tariq Khan

A/Manager Minerals

Department of Environment and Science

Delegate of the Chief Executive

Environmental Protection Act 1994

Enquiries:

Department of Environment and Science

Compliance Centre: **Townsville**

Mail: PO Box 5391 TOWNSVILLE QLD 4810

Email: ESTownsville@des.qld.gov.au

Telephone: 07 4722 5353