

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 the stated action in regard to a contamination incident.

Thomson Resources Ltd
Level 1, 80 Chandos Street
ST LEONARDS, NSW 2065

Email: david@thomsonresources.com.au

Your reference: EPML04238116

Our reference: E-100171549

2 December 2021

Take notice: that under section 363H of the *Environmental Protection Act 1994* (the Act) a clean-up notice is issued to Thomson Resources Ltd (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 the activities of Thomson Resources Ltd ACN 138 358 728 at the following locations:

- Texas Silver Project on land described as Lot 28 Crown Plan MPH14454 and Lot 2 Survey Plan SP140743, and mining lease ML100106 situated at Texas, Qld (the premises);
- The downstream land and waters impacted by the contamination incident.

A. Grounds

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

- 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);
- You are a prescribed person for the contamination incident pursuant to section 363G of the Act because you caused or permitted the incident to happen; at the time of the incident you were the occupier of a place at or from which the incident is happening or happened; and you were the owner, or person in control, of a contaminant involved in the incident.
- The department reasonably considers that the stated actions (requirements) are necessary to assess the nature and extent of the environmental harm, or the risk of further environmental harm from the contamination 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 mining lease ML100106 which provides for exclusive right of access.

2. You are the holder of Environmental Authority EPML04238116 which regulates activities at the site.
3. You are also the registered owner of Lot 28 Crown Plan MPH14454 and Lot 2 Survey Plan SP140743.
4. Conditions F2 and F3 of Environmental Authority EPML04238116 provides for release locations and limits, for the release of contaminants to waters, such that environmental harm is minimised.
5. Condition H17 of Environmental Authority EPML04238116 provides that the holder must, immediately on becoming aware that the mandatory reporting level (MRL) has been reached, act to prevent any unauthorised discharge from the regulated dam.
6. You have reported that on 1 December 2021, at approximately 2am a release commenced from East Dam (refer Appendix 1 - ED).
7. On 1 December you reported that at 5.15am the release over the spillway was 10-15 litres per second.
8. The release is continuing as at 2 December 2021, albeit at a reduced rate.
9. There are structures onsite that generate acid mine drainage including low pH, high metals and high electrical conductivity that have the potential to cause environmental harm should contaminants be released.
10. The Bureau of Meteorology has identified a La nina weather system has established likely to increase the change of above average rainfall across much eastern Australia during summer.
11. With contaminated water storages onsite unable to contain extreme storm storage (ESS) volumes or meet the allowance for MRL the department holds concerns with regards to the contaminated water inventory onsite with the predicted summer forecast.
12. Based on historical department records, water quality in East Dam typically has a low pH of approximately 3, high levels of electrical conductivity, and contains a range of heavy metals that exceed many of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Anzecc-Armcanz-2000).
13. Water quality in East Dam typically exceeds release limits listed in Schedule F Table F2 of environmental authority EPML04238116.
14. Since the release commenced the department is reasonably satisfied that contaminated waters have been releasing to the downstream environment off the mining lease and off land owned by you.
15. You have supplied insitu water quality monitoring results from the East Dam spillway, which confirm the release of contaminated water from East Dam, with a pH ranging between 2.89 and 2.96, and an electrical conductivity ranging between 5450 and 7010 microsiemens per cm.
16. You have supplied insitu water quality monitoring results from a monitoring location you have referred to as TexSW06 downstream of the spillway, which confirms the release of contaminated water from East Dam, with a pH of 3.03 and an electrical conductivity of 5190 microsiemens per cm.
17. You have supplied insitu water quality monitoring results taken downstream of the release in the receiving environment at monitoring location IAP02 (refer Appendix 1 – IAP02) with a pH ranging from 4.03 to 4.33, and an electrical conductivity ranging between 1588 and 4258 microsiemens per cm.
18. You have supplied insitu water quality monitoring results taken downstream of the release in the receiving environment at monitoring location you have referred to as TexSW15_DS with a pH reading of 4.57 and an electrical conductivity reading of 1277 microsiemens per cm.

19. Water quality at nearby Guymers Crossing (also referred to as location IAP01) (refer Appendix 1 – IAP01) was sampled by the department prior to the release commencing on 12 November 2021 and recorded a pH of 6.9.
20. Comparing these two results indicates that contamination from the release event is mobilising to the downstream catchment, including Dry Creek and potentially Aplin Creek.
21. On 2 December 2021 you confirmed to the department that all of the structures containing contaminated water on the premises had breached their respective MRL.
22. Environmental harm is defined in section 14 of the Act as:
 - (1) *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.*
 - (2) *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.*
23. Environmental value is defined in section 9 of the Act as follows:
 - (a) *A quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or*
 - (b) *Another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.*
24. Under the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* (Water EPP), all Queensland waters have prescribed environmental values and water quality objectives.
25. Environmental values and water quality objectives for the receiving waterway are listed in Schedule 1 of the Water EPP see: [Schedule 1 - Plan: WQ4161 Border Rivers Basin](#)
26. The relevant water type is Traprock with the environmental values listed in the document titled [Queensland Border Rivers and Moonie River basins Environmental Values and Water Quality Objectives \(des.qld.gov.au\)](#)
27. Public amenity and safety are also environmental values prescribed by the Act that may be adversely affected by low pH water with high metals.
28. Ecological health is an also environmental value under the Act that may be adversely affected by a release of low pH water with high metals.
29. It is understood by the department that the receiving environment downstream of the premises contains permanent pools with a range of aquatic habitats present. Macoinvertebrate and fish species have previously been reported.
30. Advice in the Anzecc-Armcanz-2000-guidelines-vol2, indicates that adverse biological effects of saline discharges into freshwater systems would be expected in Australian aquatic ecosystems if salinity was allowed to increase to approximately 1500 microsiemens per cm.
31. Anzecc-Armcanz-2000-guidelines-vol2 also indicates that most natural freshwaters have a pH in the range 6.5–8.0. Changes to pH may affect the physiological functioning (e.g. enzymes, membrane processes) of biota. Chronic effects have been reported below pH 5, with harmful effects on eggs and fry (ANZECC 1992). Almost all water quality guidelines around the world (e.g. (ANZECC 1992, CCREM

1991, Alabaster & Lloyd 1982, USEPA 1986b) recommend that pH should be maintained in the range 6.5 to 9.0 to protect freshwater aquatic organisms.

32. Previous work undertaken in the downstream catchment indicates that dissolved metals are low throughout the catchment and rarely exceeded Anzecc-Armcanz-2000-guidelines trigger values for the protection of aquatic ecosystems. The metals which are expected to be present in the release based on historical water quality data, are expected to exceed guideline values designed to protect aquatic ecosystems.
33. The department is reasonably satisfied that the releases from East Dam has is or is likely to cause environmental harm:
 - 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 for material environmental harm; or
 - c. that results in costs of more than the threshold amount for material environmental harm in taking appropriate action to— (i) prevent or minimise the harm; and (ii) rehabilitate or restore the environment to its condition before the harm
34. You are considered to be a prescribed person for a contamination incident pursuant to section 363G of the Act because:
 - a. You caused or permitted the incident to happen;
 - b. At the time of the incident you were the occupier of a place from which the incident happened;
 - c. You are the owner or person in control, of a contaminant involved in the incident
35. The department reasonably considers that the stated actions (requirements) are necessary to assess the nature and extent of the environmental harm, or the risk of further environmental harm from the contamination incident, to keep the administering authority informed and to prevent or minimise contamination.

B. Requirements

You are required to do the following:

Cease the Release

1. You must use your best endeavours to cease the release of contaminated waters from the premises, as soon as reasonably practicable and by 5pm 4 December 2021.

Notification

2. You must use your best endeavours to notify all potentially affected landholders along Dry and Alpin Creeks (including owners that use the land for grazing) downstream of the release by 5pm 3 December 2021.

Monitoring

3. You must continue to implement an environmental monitoring program. As soon as possible and by 8 am on 4 December 2021, you must implement a competent environmental monitoring program to identify and assess the extent of environmental impact associated with the release. This must include at minimum:
 - a. Sampling at the monitoring locations identified in Attachment 1
 - b. At monitoring locations identified in a. daily sampling for laboratory analysis for all parameters listed in Schedule F Table F2 of environmental authority EPML04238116 during the release and for a period of 7 days post cessation of the release (unless otherwise agreed to by the administering authority).
 - c. At monitoring locations identified in attachment 1 as East Dam Spillway (W5) and IAP02, three hourly field measurements during the release and daily for a period of 7 days post cessation of the release (unless otherwise agreed to by the administering authority) between the hours of 6am and 6pm for
 - i. EC and pH and TDS
 - ii. Time of sampling
 - iii. Location of sampling – with photo of sampling point and GPS co-ordinates
 - iv. Flow of water (L/s) sampled including video footage of flow
 - d. Sediment monitoring, with locations sufficient to delineate the extent of impact.
4. Provide daily updates of field measurements to the department during the monitoring program.
5. Within 60 days of the release from East Dam ceasing, provide a report prepared by an appropriately qualified person on the environmental impacts of the release. The report must include recommendations for any steps required to mitigate or remedy the impact of the incident.

Spill Risk Assessment

6. You must use your best endeavours to update the site water balance and spill risk assessment to reflect the current water inventory by 9 December 2021. A copy of the assessment is to be provided to the department.
7. Between 9 December 2021 and 29 April 2022, you must maintain an up-to date water balance model and retain professional capability such that you provide an accurate spill risk assessment to the department within 24 hours of a reasonable request (based on forecast weather events).

Water Inventory Management

8. By 17 December 2021, you must provide to the department a Water Treatment and Spill Risk Management Plan prepared by an appropriately qualified person. The Water Treatment and Spill Risk Management Plan must:
 - a. Outline the actions you are taking and commit to take, using your best endeavours to reduce the site contaminated water inventory, such that all structures holding contaminated water achieve an available freeboard that provides the following:
 - i) For structures that are regulated structures, the ESS allowance and MRL for those structures.
 - ii) For structures that are located on the premises that are not regulated structures achievement of a freeboard equivalent to a 1:10 AEP 72 hr duration event
 - b. Outline the contingencies that you have in place and commit to maintain to reduce the potential for environmental harm, until such time as the freeboard identified in requirement 8a is achieved.

9. An updated Water Treatment and Spill Risk Management Plan must be prepared by an appropriately qualified person and provided to the department on 10 January 2022, 14 February 2022, 14 March and 11 April 2022.

Potentially Impacted Water Users

10. Within 24 hours of becoming aware that a downstream water user has been impacted from the mine release, you must report this to the department, and take reasonable steps to remedy the impact, including by providing an alternative water supply if no reasonable alternatives can be implemented.

Definitions

Contaminated water – is any water that does not meet the limits specified in table F2 of Environmental Authority EPML04238116.

ESS – is defined in the Manual for assessing consequence categories and hydraulic performance of structures.

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.

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. If you are dissatisfied with the decision to issue this clean-up notice, you may apply to the relevant court for a stay of the decision to issue the clean-up notice.

A person who is dissatisfied with the decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the decision.

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

For further information about reviews and appeals see the information sheet – Internal review and appeal to the Planning and Environment Court ([ESR/2015/1572](#)) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1742) as a search term.

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

D. Penalties

Failing to comply with a clean-up notice is an offence unless you have a reasonable excuse.

- The maximum penalty for an individual for wilfully contravening a clean-up notice is 6,250 penalty units, totalling \$ 861,562.50 or five years imprisonment. 137.85
- The maximum penalty for a corporation for wilfully contravening a clean-up notice is 31,250 penalty units, totalling \$ 4,307,812.50.
- The maximum penalty for an individual contravening a clean-up notice is 4,500 penalty units, totalling \$ 620,325.00.
- The maximum penalty for a corporation contravening a clean-up notice is 22,500 penalty units, totalling \$ 3,101,625.00.

If you do not comply with the clean-up notice, an authorised person may also take any of the actions stated in the notice and the department may recover from you the costs incurred in taking the actions.

Should you have any queries in relation to the notice, please contact Jessica Johnson on telephone number 07) 4529 8371.



Signature

2 December 2021

Date

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Manager Compliance - Minerals

Delegate of the Chief Executive

Department of Environment and Science

Environmental Protection Act 1994

Enquiries:

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Appendix 1 – Site map showing reference sampling locations

