



Tailings Facilities Management

Tailings management is a critical part of managing the risks of the waste produced from the mining process. These risks can range from potential consequences of a tailings storage facility failure through to groundwater impact due to seepage.

The design of a tailings dam is influenced by many factors including proximity to employees, communities, infrastructure, the geological conditions as well as the deposition of the tailings.

We regularly review our approach to tailings dams and take into account learnings from others. The design of our tailings dams is based on the potential risk to the environment and social responsibility, to ensure we minimise and control any potential impact that may be caused by the construction, operation and post closure of the tailings facilities.

We currently have two active tailings dams and we currently manage three tailings dams at the Wodgina mine site which are in care and maintenance (details on page 2). All are located in remote areas, and are significant distances from local communities and infrastructure.

We construct, operate and decommission our dam facilities in a safe and compliant manner; consistent with regulatory requirements, applicable guidelines and standards. This applies throughout the dam's life cycle including planning and site location, design and construction, operation and preventative maintenance, decommissioning, closure, rehabilitation and post-closure monitoring and maintenance.

Current tailings dams:

Location	Type
Mt Marion mine site	In-pit tailings dam
Wodgina mine site	Downstream lift construction

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Managing Director

Mine Tailings Disclosure Table

Overview question:
Please
a) Provide an overview of your tailings management system, and how you manage risk
b) Confirm whether your approach to tailings management has changed or will change in light of the recent tailings disasters at Brumadinho, Mariana, Mt Polley and others. Have you, for example, reviewed all tailings storage facilities with upstream dam construction, and taken steps necessary to protect local communities and the environment e.g. buttressing, evacuation?

Derivative answer:
a) We construct, operate and decommission our dam facilities in a safe and compliant manner that is consistent with regulatory requirements, applicable guidelines and internal standards. This applies to all phases of the dam's life cycle including planning and site location, design and construction, operation and prevention, maintenance, decommissioning, closure and rehabilitation and post-closure monitoring and maintenance.
b) We regularly review our approach to tailings dams and take into account learnings from others. The design of our tailings dams is based on the potential risk to the environment and social responsibility, to minimise and control any potential impact that may be caused by the construction, operation and post closure of the tailings facilities. Due to the location of our tailings dams, including the proximity to communities and infrastructure, our current facilities are deemed as low risk.

The remaining questions should be answered by listing all of the tailings facilities you are responsible for or associated with, per the disclosure letter of the 5th April 2019.

	Country	Mine	1. Tailings Dam Name/Identifier	2. Location	3. Ownership	4. Status	5. Date of initial operation	6. Is the Dam currently operated or closed as per currently approved design?	7. Raising method	8. Current Maximum Height (m)	9. Current Tailings Storage Impoundment Volume (m3)	10. Planned Tailings Storage Impoundment Volume in 5 years time (m3)	11. Most recent Independent Expert Review	12. Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure.	13. What is your hazard categorisation of this facility, based on consequence of failure?	14. What guideline do you follow for the classification system?	15. Has this facility, at any point in its history, failed to be confirmed or certified as stable, or experienced notable stability concerns, as identified by an independent engineer (even if later certified as stable by the same or a different firm).	16. Do you have internal/in house engineering specialists oversight of this facility? Or do you have external engineering support for this purpose?	17. Has a formal analysis of the downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did this assessment take place?	18. Is there a closure plan in place for this dam, and if not, does it include long term monitoring?	19. Have you, or do you plan to assess your tailings facilities against the impact of more regular extreme weather events as a result of climate change, e.g. over the next two years?	20. Any other relevant information and supporting documentation. Please state if you have omitted any other exposure to tailings facilities through any joint ventures you may have.	
MRL Data	Australia	Wodgina	Wodgina TSF1	-118.138 118.67333	MARBL Lithium Operations Pty Ltd	Closed	Unknown	Yes	Landform	Unknown	Unknown	(m3 as of March 2019)	(m3 as planned for January 2024)	(date) For this question we take "independent" to mean a "substantiated decision on the safety of the dam, be it an old facility, or an acquisition, or legacy site. More information can be provided in your answer to Q20	Low	MRL Risk Matrix	No	Internal	Yes	b) Yes b) No	No	Q19: Closed, encapsulated and stable Q8,9,10: No information available from previous owner	
	Australia	Wodgina	Wodgina TSF2	-11.18083 118.67944	MARBL Lithium Operations Pty Ltd	Closed	Unknown	Yes	Landform	Unknown	Unknown			Unknown	No	Low	MRL Risk Matrix	No	Internal	Yes	b) Yes b) No	No	Q19: Closed, encapsulated and stable Q8,9,10: No information available from previous owner
	Australia	Wodgina	Wodgina TSF3	-11.18777 118.66388	MARBL Lithium Operations Pty Ltd	Closed	Unknown	Yes	Landform	27	10,380,365	10,380,365		Unknown	No	Low	MRL Risk Matrix	No	Internal	Yes	b) Yes b) No	No	Q19: Closed and stable Q8,9,10: No information available from previous owner
	Australia	Wodgina	Wodgina TSF3B	-11.1841528 118.6648972	MARBL Lithium Operations Pty Ltd	Active	Apr-2019	Yes	Landform	16	218,588	2,000,000	Feb-19	Yes	Low	MRL Risk Matrix	No	Internal	Yes 2019	b) Yes b) Yes	Yes	Q19: assessed against a 1 in 100 year event	
	Australia	Mt Marion	Mt Marion GCB	-31.08083 121.4325	Reed Industrial Minerals Pty Ltd	Active	Jul-2016	Yes	in pit	37	Tailings deposited in ghost crab pit in Mar 2019 was approx 1.9 million m3 of a dam capacity of approx 7.5million m3	Total Tailings deposited in ghost crab pit in 5 years will be approx 3.8 million m3 of a dam capacity of approx of 7.5million m3	Mar-19	Yes	Low	TSF code of practice (WA DMP 2013)	No	Internal & External	N/A	a) Yes b) Yes	Yes	Q17: in pit tailings Q19: assessed against a 1 in 100 year event	

Instructions to support completion

Please identify every tailings storage facility and identify if there are multiple dams (main or secondary dams) within that facility. Please provide details of these within question 20.

Please specify: Owned and Operated, Subsidiary, JV, NDIV, as of March 2019

We take closed to mean: a closure plan was developed and approved by the relevant local government agency, and key stakeholders were involved in its development; a closed facility means the noted approved closure plan was fully implemented or the closure plan is in the process of being implemented. A facility that is inactive or under CBM is not considered closed until such time a closure plan has been implemented.

Note: Upstream, Centreline, Modified Centreline, Downstream, Landform, Other.

Note: Please disclose in metres

Note: (m3 as of March 2019)

(m3 as planned for January 2024)

(date) For this question we take "independent" to mean a "substantiated decision on the safety of the dam, be it an old facility, or an acquisition, or legacy site. More information can be provided in your answer to Q20

(Yes or No) We take the word "relevant" here to mean that you have all necessary documents to make an informed and substantiated decision on the safety of the dam, be it an old facility, or an acquisition, or legacy site. More information can be provided in your answer to Q20

Note: Answers may be "both".

Note: Please answer "yes" or "no", and if "yes", provide a date.

Please answer both parts of this question (e.g. Yes and Yes)

Note: This may include links to annual report disclosures, further information in the public domain, guidelines or reports etc.