

Cultural heritage impacts and management



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Archaeological surveys of the Ranger Project Area (RPA) have identified and recorded a large number of sites of indigenous cultural heritage significance.

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Process

Cultural heritage surveys, conducted by a GAC appointed archaeologist and invited Mirrar, are a prerequisite to land disturbance on the RPA. Surveys have been conducted across approximately 73% of the Ranger Project Area, including the area where Project infrastructure will be placed and in adjacent areas up to Magela Creek to the east of the Project footprint.

Land disturbance

There is one surface site of cultural significance located above the proposed underground mine. This site, R34, is an archaeological site that provides evidence of occupation via a quartz quarry of stone implements and grinding holes. The site is located within a fenced exclusion zone, which protects it from potential surficial impacts such as clearing. The closest intended surface infrastructure for the Project is located approximately 100 m from the fence.

Several recent projects have taken place in the vicinity of

cultural sites without adverse impact. The scale and location of the Project is much smaller than these recent projects.

Impacts on cultural heritage

Other risks to cultural heritage were identified as noise generation, dust and other air emissions, vibration and possible visual amenity impacts. Studies have shown that these risks have negligible potential to impact cultural heritage values:

- Air quality studies indicate that dust and emissions from the Project will have no measurable physical effect on cultural sites. There has been no physical impact to cultural sites by dust and emissions from mining and stockpiling mineralised material since operations commenced in 1980. Continued on page 2.

Fast Facts

- 73% of the RPA, including the Project footprint has undergone cultural heritage surveys.
- R34 is an archaeological site that lies above the proposed underground mine.
- Surface infrastructure for the Project is located approximately 100 m away from R34.
- Vibration modelling indicates that the below-ground activities will not have a physical impact on surface cultural sites.
- Air quality studies show dust and emissions will have no measurable physical effect on cultural sites.
- A visual amenity assessment indicates that the Project infrastructure will not be visible from areas on the RPA used for cultural purposes.
- The Project is not expected to impact on cultural heritage in the near vicinity or the cultural heritage values of the surrounding Kakadu National Park.

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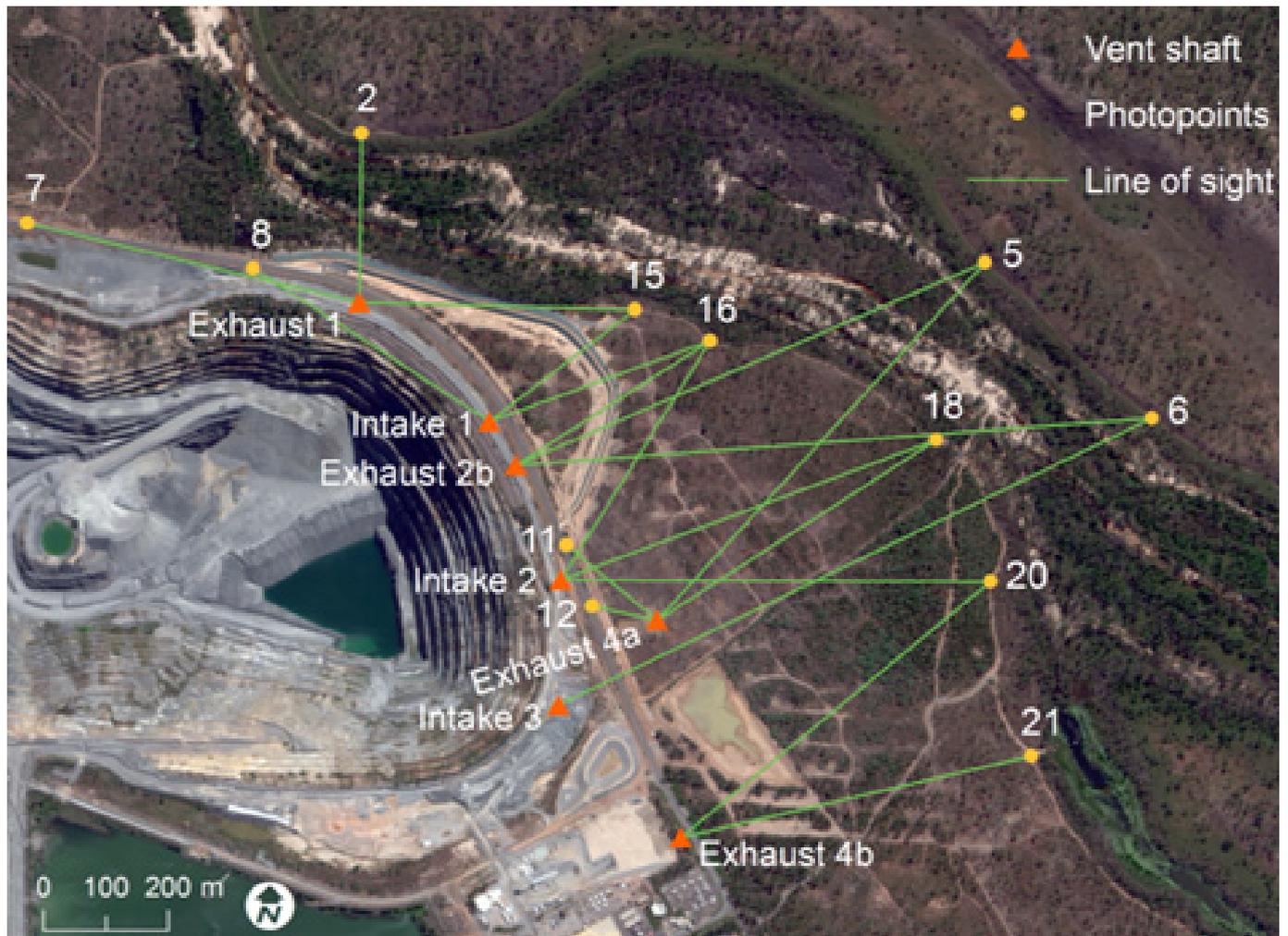


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- (Continued from page 1) Vibration monitoring of the Ranger 3 Deeps exploration decline blasting indicates that the below ground activities will not have a physical impact on surface cultural sites. Also, there are no known subsurface sites upon which the Project could have an impact.
- A visual amenity assessment, using topography,

vegetation, and design data indicates that the Project infrastructure will not be visible from areas occasionally used for cultural purposes within the RPA.

Based on the studies, the Project is not expected to impact on cultural heritage in the near vicinity of the Project. The cultural heritage values of the surrounding Kakadu National Park will also remain protected.



Infrastructure and observer locations used in visual amenity study.

Further reading:

Refer to Chapter 10 of the *ERA Ranger 3 Deeps Draft Environmental Impact Statement*.