



Summary Report of Heritage Works Supporting the Rio Tinto Iron Ore Mesa A Hub.

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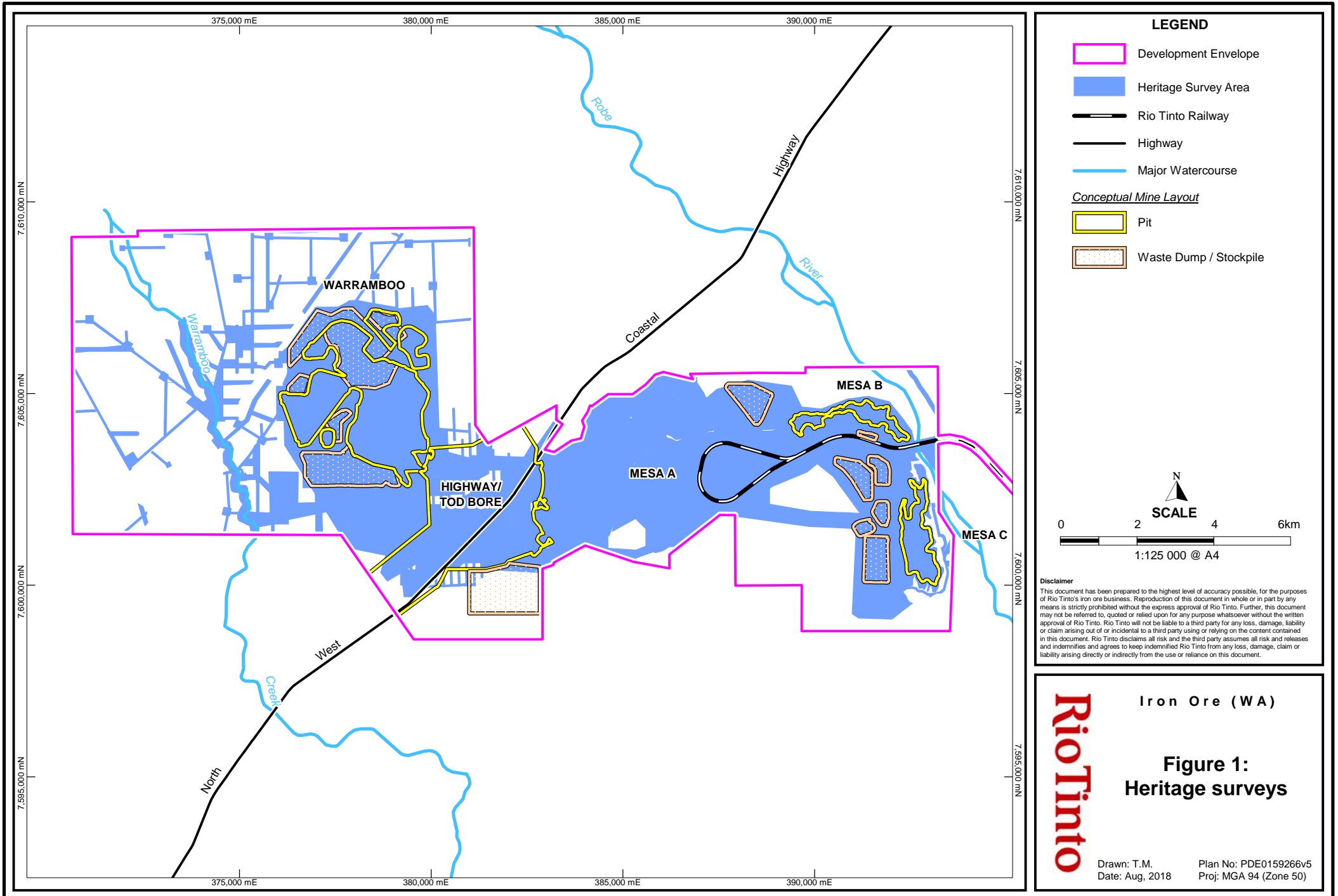
RIO TINTO HERITAGE MANAGEMENT PROCESS AT MESA A HUB

RTIO has a well-developed heritage management process that ensures that heritage surveys occur over any areas that are proposed for ground disturbance, and that all recorded heritage sites are managed appropriately. Heritage surveys (both archaeological and ethnographic) have been conducted as required within the Mesa A Hub Development Envelope since 1989. This survey work has been conducted with the involvement of the Kuruma Marthudunera People, the native title holders of this area.

Approximately 50 heritage survey related fieldtrips (including archaeological surveys, ethnographic surveys and salvage works) have occurred to date within the western portion of the Development Envelope. Archaeological surveys have been conducted over approximately 53%¹ of the land within the western portion of the Development Envelope (refer figure 1), primarily for resource evaluation drilling programs, mine development and associated infrastructure. Ethnographic surveys have also been conducted over these same areas to ensure that all archaeological and ethnographic values within these areas have been identified and avoided where practicable. Where there is potential that recorded sites may be disturbed by future works, sites have been archaeologically re-recorded (where applicable) to a level of detail suitable for application under Section 16 and/or Section 18 of the *Aboriginal Heritage Act 1972 (WA)* to the Department of Planning, Lands and Heritage (formerly the Department of Aboriginal Affairs). Additionally, each of these sites have been individually consulted on with the Kuruma Marthudunera People as part of a site specific ethnographic consultation, which outlines RTIO's proposed development works and impacts in the location of that site. Any further comments or recommendations for these places by the Kuruma Marthudunera People have been recorded for inclusion in the relevant Section 16 and/or Section 18 applications, should the applications be required. Subject to conditions in the various Section 16 and/or Section 18 consents, numerous heritage sites have been, and will be, salvaged/excavated with the involvement of the Kuruma Marthudunera People as part of a mitigation strategy for impacts to heritage sites by RTIO works.

¹ This figure represents all of the currently proposed disturbance footprint associated with the Mesa A, Mesa B, Mesa C and Warramboe deposits. Further survey work will be required to be undertaken for areas relating to the Highway deposit, and for any additional areas of proposed disturbance within the Development Envelope not already covered.

Figure 1. Heritage survey coverage



LEGEND

- Development Envelope
- Heritage Survey Area
- Rio Tinto Railway
- Highway
- Major Watercourse

Conceptual Mine Layout

- Pit
- Waste Dump / Stockpile

0 2 4 6km
SCALE
1:125 000 @ A4

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**Figure 1:
Heritage surveys**

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OVERVIEW OF HERITAGE FIELDWORK CONDUCTED AT MESA A HUB

In order to provide a general context for heritage works that have occurred or will occur in the future within the western portion of the Development Envelope of the Mesa A Hub, the work can be split into three main categories.

Archaeological and ethnographic surveys to support resource evaluation drilling programs have been occurring consistently since 2003, over targeted areas of the Development Envelope, including the tops of Mesas A, B and C, the flats around Mesas A, B and C, and the flats of Warrambo, Highway/Tod Bore and Dinner Camp Bore. The purpose of these surveys is to identify any heritage sites that occur within the proposed drilling program areas. Examples of these surveys include Gavin Jackson Pty. Ltd. (2004) and Pilbara Native Title Service (2004).

Extensive archaeological and ethnographic survey work and consultation occurred in the period 2003-2008, associated with the original development of the Mesa A and Warrambo mines, and associated infrastructure. This heritage work included surveys to identify any heritage sites within the proposed mining and infrastructure areas, archaeological and ethnographic assessments for those sites requiring Section 18 applications. An extensive salvage program was carried out in the area of the Mesa A and Warrambo pits, and the associated rail corridor to Mesa J between 2006 and 2008. Examples of these surveys include Vivienne Wood Heritage Consultant (2004), De Gand (2006) and Archae-Aus (2012).

Extensive archaeological and ethnographic survey work and consultation has occurred from 2015 to present day, associated with the proposed development of the Mesa B and Mesa C mines, and associated infrastructure (as part of the larger Mesa A Hub). Section 16 and/or Section 18 applications are currently being discussed with the Kuruma Marthudunera Heritage Advisory Committee before being lodged with the Department of Planning, Lands and Heritage. An extensive salvage and excavation program will be undertaken with Kuruma Marthudunera representatives during 2019 to 2021 pending ministerial consents. Examples of these surveys include Gavin Jackson Cultural Resource Management (2015a), Gavin Jackson Cultural Resource Management (2015b) and Terra Rosa (in prep).

HERITAGE PLACES AT MESA A HUB

There are currently approximately 210 heritage sites within the western portion of the Development Envelope. The two distinct topographical features within the western portion of the Development Envelope, flat plains and the mesa landforms, closely align with the two dominant heritage site types found in these areas. Artefact scatters make up approximately 55% of recorded sites and occur predominantly on the flat tops of the mesas and the surrounding flats, while rockshelters make up approximately 25% of recorded sites and occur predominantly on the mesa escarpments. The remainder of recorded heritage sites are spread across the western portion of the Development Envelope and include various site types such as scarred trees, quarries, grinding features, historical, mythological, and named places.

Heritage places identified by the Kuruma Marthudunera People as being of particular significance within or nearby to the western portion of the Development Envelope are outlined in table 1 below. Generally these places have both physical and intangible aspects, which are viewed by the Kuruma Marthudunera People as a combined entity when considering each place and its values. The Rio Tinto Iron Ore Heritage team have mapped and recorded these places with the Kuruma Marthudunera People to ensure appropriate management², however due to the sensitive nature of these places detailed information (including some specific site details) is not distributed to the wider business or externally without permission from the Kuruma Marthudunera People.

² The Mesa A Hub Proposal will avoid direct disturbance to all places listed in Table 1, except for Yirrkawiyi Gap and the Mesa B and Mesa C escarpment. Rio Tinto is working with the Kuruma Marthudunera People to ensure continued protection of these places. A narrow portion of the land underlying the Yirrkawiyi Gap site will be impacted for the purpose of widening an existing road, however detailed consultation with Kuruma Marthudunera representatives has confirmed that the heritage values of this place will not be impacted by this activity. The nature of mining a Mesa landform necessitates that an entry point/points through the escarpment be created to allow access for ore transport. The locations of these entry points at Mesa B and Mesa C have been designed so as not to be within the escarpment directly overlooking the Robe River. The remainder of the escarpment will remain intact

Table 1: Heritage Places of particular importance

Place name	Short description	General Location
Robe River (Gadjiwura)	Robe River (as a whole entity)	East of Mesa B and Mesa C
Wooroo Pool (also known as Wirunha)	Pool in the Robe River	East of Mesa B
Milimitji	Pool in the Robe River	East of Mesa B
Wuntungkarangku (also known as Palarti)	Pool in the Robe River	East of Mesa C
Martangku (also known as Karkuru)	Pool in the Robe River	East of Mesa C
MBC15_36	Rockshelter site with rare spinifex matting and ethnographic values	Mesa B
Yirrkawiya Gap	Mythological place	Mesa C
Warramboe Outstation	Historic Outstation with connections to past and present Kuruma Marthudunera persons	Warramboe
W10-ALGYS	Place of ethnographic significance	Warramboe
WBOO_SCOOP_EX	Grinding scoops with ethnographic values	Warramboe
Urrunha	Traditional birthing place in the Robe River	Northeast of Mesa B
Mesa Escarpments (in general)	Visual amenity of the distinct Mesa landforms as viewed from the surrounding areas	Mesa A, Mesa B, Mesa C

For enquiries about heritage surveys or sites within the Mesa A Hub Development Envelope please contact the Rio Tinto Iron Ore Heritage team.

REFERENCES

Archae-Aus. 2012 *A Report of the Salvage of Thirty-six Indigenous Archaeological Sites within the Mesa A – J Rail Corridor, near Pannawonica, Western Pilbara.*

De Gand, D. 2006 *Report on Aboriginal Ethnographic Recommendations on Previously Recorded Archaeological Sites on the Mesa A, Warramboe and Rail Transport Corridor Project Areas, Located West of Pannawonica, Western Australia.*

Gavin Jackson Pty. Ltd. 2004. *A Report of an Aboriginal Archaeological Survey of Mesa B, Mesa C and Part of Mesa F, near Pannawonica, Western Australia.*

Gavin Jackson Cultural Resource Management 2015a *Volume 1 of a Report of the Aboriginal Archaeological Site Location and Assessment Recording Level 1 Survey, including Nine Previously Recorded Sites, within Mesa B and C and the Site Bypass Recording Survey within Hubert Well, Pilbara, Western Australia.*

Gavin Jackson Cultural Resource Management 2015b *Volume 2 of a Report of the Aboriginal Archaeological Site Location and Assessment Recording Level 1 Survey within Mesa B & C and the Site Bypass Recording Survey within Hubert Well, Pilbara, Western Australia.*

Pilbara Native Title Service. 2004 *Report of an Ethnographic Heritage survey of Mesas B, C and F*

Terra Rosa (in prep) *Ethnographic site assessment heritage survey of heritage places within RTIO's Mesa B and C Project Area, conducted with the Kuruma Marthudunera Traditional Owners.*

Vivienne Wood Heritage Consultant. 2004 *A Re-examination of Department of Indigenous Affairs Sites 8,280 and 18,514: Work Undertaken as Part of the Robe River Mining Warramboe 2004 Evaluation Drilling Program*