

## 14.0 Cultural Heritage

### 14.1 Introduction

The MRM project is on lands that were traditionally used by the Gudanji, Binbinga and Yanyula people. Borroloola and its immediate surrounds have residents from a number of Aboriginal groups and include the Garawa, Mara and Alawa people. Not all of these groups are traditional owners of lands likely to be directly affected through the open cut development, but they have historically been consulted about the mine as members of the local community.

In recent years a number of Aboriginal site investigation studies have been undertaken and agreements have been made with the traditional owners for the current mining lease approvals. In addition, site investigations have also been undertaken for the areas to be affected by the open cut project.

### 14.2 Measures to Protect Aboriginal Heritage

The region in which the mine is located has long been, and continues to be, an area of importance to Aboriginal people. While many Aboriginal people still live in the general region of the mine, no-one lives in the immediate vicinity of the mine.

MRM maintains a neighbourly relationship with Aboriginal communities in the area. MRM's Community Relations Department staff have built up a solid working relationship with local Aboriginal people over the years. This has enabled positive interactions to take place on matters of Aboriginal cultural heritage in cases where the mine's activities may come into contact with areas of significance to local people.

As part of its mine planning, MRM undertakes archaeological and ethnographic surveys of all land it may wish to disturb. This work has been undertaken in co-operation with traditional owners and other local Aboriginal elders, in order to avoid damaging important cultural sites wherever possible and to develop acceptable salvage plans whenever disturbance cannot be avoided. To this purpose, the mine has commissioned a number of archaeological surveys over the years, covering all areas that might be disturbed by the mine.

In addition, MRM has facilitated ethnographic surveys to be undertaken by traditional owners and Aboriginal Areas Protection Authority (AAPA) personnel of any new areas it wishes to use, including those to be used for the open cut project. The AAPA clearances discussed below state what site avoidance measures need to be taken during mining and construction activities.

Furthermore, for everyday mining business, if any employee (or contractor) needs to undertake any ground disturbing activity, they must obtain approval from both MRM's Community Relations Department and Environmental Department, in order to ensure that no inadvertent damage is caused to any features of cultural heritage significance.

These activities demonstrate that MRM acknowledges that sites of cultural importance to Aboriginal people do exist in the mine area, and that it works with local Aboriginal people to manage the situation in a manner acceptable to all parties.

MRM incorporates cultural heritage awareness in its site induction program for new employees. This includes discussion about local cultural heritage issues and a related video. A cultural heritage component will be included in the induction programs for both the construction and operational workforces associated with the open cut project.

### 14.3 Heritage and National Estate

An on-line interactive search of the Australian Heritage Database was undertaken for the place names; McArthur and Bing Bong. The Australian Heritage Database covers the following heritage listings:

- the World Heritage List;
- the National Heritage List;
- the Commonwealth Heritage list;
- the Register of the National Estate; and
- places under consideration for any one of these lists.

#### 14.3.1 McArthur Search

The following listings were present for the McArthur search.

##### ***Abner Range, Carpentaria Hwy, Borroloola, NT.***

Abner Range is listed as an Indicative Place, Register of the National Estate and is classed as Natural. The Department of Environment and Heritage defines an Indicative Place on the Register of the National Estate as: "Data provided to or obtained by the Australian Heritage Council or the former Australian Heritage Commission has been entered into the database and the place is at some stage in the assessment process. A decision on whether the place should be entered in the Register has not been made." (DEH, 2005).

Abner Range is located approximately 40 km from the McArthur River mine with part of the 70,000 ha range bordering the eastern bank of the McArthur River. It is a geomorphological feature of international significance. Abner Range is considered to be one of the most extensive and spectacular developments of these formations in Australia. It supports vegetation types of biogeographic importance and has high aesthetic values. There is evidence of Aboriginal occupation in the area and many of the sites have already been registered on the Register of the National Estate.

### **Caranbirini Waterhole Area, Carpentaria Hwy, Borroloola, NT**

Caranbirini Waterhole is listed as an Indicative Place and is classed as Natural. It has an area of about 314 ha and is 33 km south-west of Borroloola. It is a small waterhole, which formed where Caranbirini Creek cuts through a strike range of Roper Group sandstone.

### **Indigenous Places, Borroloola**

Five Indigenous Places were highlighted by the Australian Heritage Database search as being within the vicinity of McArthur. Three of these places are listed as Registered; the other two are listed as Removed from the Register or IL. There is no other information available.

The definition of a Registered Place on the Register of the National Estate is as follows “the place is in the Register of the National Estate. Although some places may be legally registered because they are within a larger registered area they may not necessarily possess intrinsic significance.” (DEH, 2005).

DEH’s definition of a Removed from the Register or IL (Interim List) for the Register of the National Estate is as follows; “the place was on the Interim List at 1 January 2004 when the Australian Heritage Commission was abolished. The place had been publicly proposed for entry in the Register. Such places will need to undergo the application of the new procedures in the Australian Heritage Council Act 2003, if they are to be entered in the Register.”.

### **14.3.2 Bing Bong Search**

The following listing was present for the Bing Bong search.

### **Rosie Creek / Pine Creek Little Tern Breeding Site, Borroloola**

The Rosie Creek/Pine Creek little tern site lies to the west of the Sir Edward Pellew Islands in the south-western Gulf of Carpentaria. The little tern (*Sterna albifrons*) is on the Commonwealth Endangered Species List. The majority of little terns in the area occur on two offshore sandbanks located adjacent to the mouths of the two creeks. The location of breeding site is about 50 km north of Borroloola.

## **14.4 Archaeology and Ethnography**

### **14.4.1 The Aboriginal Areas Protection Authority**

The Aboriginal Areas Protection Authority (AAPA) is a statutory authority of the Northern Territory (NT) Government, established under complementary NT legislation in accordance with the Commonwealth *Aboriginal Land Rights Act 1976* (ALRA). The ALRA provides for the NT Government to make laws for the protection and prevention of desecration of sacred sites in the Northern Territory.

A sacred site is defined in the ALRA as “a site that is sacred to Aboriginals or is otherwise of significance to Aboriginals according to Aboriginal tradition.” This definition implies that sites are known to, and are

of significance to, people alive today, which means that archaeological sites would not necessarily come under this definition. For this reason, a distinction is usually drawn between archaeological and ethnographic or sacred sites when referring to Aboriginal cultural heritage. Indeed, archaeological sites are covered under separate legislation, the *Heritage Conservation Act 2000*.

Under the *Northern Territory Aboriginal Sacred Sites Act 1989*, the AAPA (AAPA, 2002) is required to:

- receive requests for site protection from Aboriginal people;
- document the information provided in support of such requests;
- enter the documentation in a register; and
- execute protection measures for all sacred sites.

Included under the last function is the responsibility of the AAPA to assess the potential impact of proposed developments and, where relevant, to issue ‘clearance certificates’ in respect of development projects undertaken within the Northern Territory. Under the Act, an Authority Certificate is required for any proposed work to be carried out on land. MIM (previous owner of the mine) was issued with certificate numbered C92/92 by the AAPA for the existing McArthur River Mine operations.

An Authority Certificate is issued only when the AAPA is satisfied that the work, or use of land, can be undertaken without there being a substantive risk of damage to a sacred site on, or in the vicinity of, the land, or when an agreement has been reached between Aboriginal custodians of any affected sites and the applicant for a certificate. Registration of a sacred site has no effect upon the legal tenure of the land on which it is located. However, under the Act it is an offence to enter, carry out works on, or desecrate a site, without approval from the custodians of that site. The offence provisions of the Act apply equally to all sites, whether registered, recorded, or even to sites previously unknown to the Authority.

It is important to note that sites are recorded and registered by the AAPA only at the request of Aboriginal custodians of sites. The AAPA has advised that “a sacred site previously unknown to the Authority may be identified after the commencement of works, leaving no option but to cease works or possibly breach the offence provisions of the Act” (NTU, 2003). This statement reinforces the importance of MRM’s procedures for ensuring that any proposed ground disturbing activity is first discussed and agreed with traditional owners.

It should not necessarily be expected that Aboriginal custodians in the area between the MRM lease and Bing Bong and the mouth of the McArthur River have identified all sacred sites to the AAPA. This is particularly likely to be the case in respect of sites that Aboriginal custodians have not believed to be directly affected by development proposals to date. It may also apply to some sites that are not only sacred but are particularly secret in Aboriginal tradition, and which Aboriginal custodians therefore prefer not be made known to non-custodians. This latter feature of Aboriginal culture explains why all sites cannot be identified, marked and fenced off to prevent people disturbing them. It also emphasises the importance of MRM continuing to maintain close relations with Aboriginal elders.

### 14.4.2 Previous Archaeological Surveys

In October 2002, Huonbrook Environment and Heritage Pty Ltd undertook an archaeological investigation of the proposed open cut area and reported the findings to MRM in December 2002. The archaeological survey and assessment of the following project components was undertaken:

- open cut pit area;
- McArthur River realignment;
- Barney/Surprise Creeks realignment;
- Barney Creek/Surprise Creek inundation area;
- plant area;
- waste rock emplacement facility area; and
- tailings storage facility area.

Two previous archaeological investigations were drawn on: the first by Haglund (1975) comprising a four-week field survey of the proposed mine site as defined at that time; and the second by Stokes (1992) conducted over a study area of 15 km<sup>2</sup> encompassing the existing mine site, of which a total of 3.5 km<sup>2</sup> was surveyed intensively.

Generally, the findings were that the identified sites and their archaeological contents were of very low archaeological significance and further scientific investigation unwarranted. It was recommended that:

- no further archaeological investigations of the above components of the proposed development should be required as a condition of the development consent process for the open cut project; and
- approval to disturb any of the archaeological materials recorded in and around the potential impact areas should be granted without the need for further archaeological investigation.

### 14.4.3 Test Pit Survey

An archaeological survey of the area proposed to be disturbed by the Test Pit project was undertaken in June 2005 by Begnaze Pty Ltd (Appendix D.1). The survey covered the Test Pit area as shown in Figure 4.4.

The scope of work included an archaeological examination of the surface during the clearing of vegetation and the removal of the topsoil. Initially, an archaeological survey was carried out over after the area had been burnt and before the vegetation was removed. Subsequent surveys were done behind the bulldozer, the grader and the scrapers until the first one metre of topsoil was removed resulting in at least three pedestrian surveys over all the area. Where the topsoil was deeper transects were more frequent. In the area of the alluvial banks of the river, the surface was examined in areas where the banks had been breached by gullying by wet season drainage.

Forty two isolated stone artefacts were located during all stages of the clearing and excavation process. The number of artefacts located during the different stages are summarised in Table 14.1. The majority of

isolated artefacts were located on the undulating terrain of cracking clays. Five artefacts were located in an area of approximately 60 x 50 metres on top of Barney Hill east.

**Table 14.1**  
**Number of Isolated Artefacts Located in Test Pit Area**

No. of artefacts				
Before clearing	After bulldozer	After grading	After 1 <sup>st</sup> scrape	After 2 <sup>nd</sup> /3 <sup>rd</sup> scrape
7	20	4	6	4

Each isolated artefact was recorded in detail and their locations documented. The majority of the artefacts were located in areas of minor drainage lines. The background scatters received a permit to destroy from the Minister of the Environment and Heritage as they were assessed as having little archaeological potential for future archaeological research.

Two archaeological sites were located in areas adjacent to but undisturbed by the Test Pit clearing. The recommendations for these sites are as follows:

- MRM1. This site has been assessed as having moderated archaeological significance and will be destroyed by the open cut project. MRM will adopt the report's recommendation which is that permission be sought from the Minister for Lands, Planning and the Environment to destroy the site, with the proviso that a detailed analysis is first made by a qualified archaeologist.
- MRM 2. This site has been assessed as having moderate to high archaeological significance and will be destroyed by the open cut project. MRM will adopt the report's recommendation which is that permission be sought from the Minister for Lands, Planning and the Environment to destroy the site, with the proviso that a detailed analysis and excavation is first made by a qualified archaeologist.

#### 14.4.4 Proposed Survey of Open Cut Project Area

Because of the findings of the archaeological survey of the Test Pit, MRM has committed to undertake an archaeological survey of the open cut project area prior to construction commencing. This is despite the recommendation of Huonbrook (2002) that no further archaeological investigations should be required as a condition of the development consent process for the open cut project.

It is proposed to undertake a predictive survey of the area to be cleared by the open cut project. Survey effort will concentrate in those areas known to be more likely to contain artefacts. If necessary, certain areas may be burnt to provide increased ground visibility.

The Test Pit archaeological survey identified numerous areas of isolated artefacts. Therefore it is proposed that before the initial clearing and excavation for the open cut project commences, a permit will be sought from the Minister for Lands, Planning and the Environment to destroy any isolated stone

artefacts of low archaeological significance within the areas to be disturbed in accordance with the requirements of the *Heritage Conservation Act (1991)*.

Should the survey identify areas that are likely to contain significant artefacts, it is proposed to have the services of an archaeologist available when these areas are being cleared. In this way potentially significant finds can be categorised and managed in accordance with the requirements of the *Heritage Conservation Act (1991)*.

#### **14.4.5 Ethnographic Sites**

The AAPA has provided information on Aboriginal ethnographic or sacred sites (as defined under the Act) in the MRM mineral lease area, adjacent areas, and between the McArthur River mine site and the mouth of the McArthur River (NTU, 2003). The AAPA identified 146 sites in this area, comprising 31 registered sacred sites and 115 recorded sites. A site may be recorded in a survey but not proceed to the registration stage as that requires more information and documentation. In many cases the significance of the site is not sufficient to cause the Aboriginal people to require registration. Nonetheless, the offence provisions of the Act apply to all sacred sites, whether or not these have been listed in the Register of Sacred Sites.

With respect to the MRM operations, the AAPA data indicate three major clusters of sacred sites as follows:

- In and adjacent to the MRM mineral leases - There are five registered sacred sites in the south-west corner of ML1122 in or close to the McArthur River, and another south of the ML. There are a further 21 within 5 km of the MRM mining leases. Most of these latter sites are close to the McArthur River and its tributaries or close to the Carpentaria Highway.
- In the vicinity of Borroloola - There are 13 registered sacred sites and a further 24 recorded sites, mostly around the township and along the McArthur River.
- The coast, islands and mouth of the McArthur River - There are 10 registered sacred sites and over 50 recorded sites.

In addition, there are a number of more widely scattered registered and recorded sites, particularly between the MRM mining leases and Borroloola.

### **14.5 Native Title**

There are no native title issues which affect the open cut project. The proposed activities will be conducted on the existing mineral leases granted and validated pursuant to the *McArthur River Project Agreement Ratification Act* and the *Native Title (Validation) Act (NT)*. There is no relevant future act that requires the procedures in the *Native Title Act (Cth)* to be followed.

Although a native title determination application in relation to the land the subject of the leases is before the Federal Court, that application is a precursor to a claim for compensation afforded by the *McArthur River Project Agreement Ratification Act*, and does not seek to impugn the validity of the leases.

## 14.6 Potential Impact, Management and Mitigation

### 14.6.1 AAPA Certificates

The surveys discussed in Section 14.4 have identified a number of registered and recorded sacred sites in the vicinity of the areas required for the open cut project. The AAPA has issued authority certificates for all of the open cut project components in accordance with Section 22 of the *Northern Territory Aboriginal Sacred Sites Act 1989*. Details of each certificate are given in Table 14.2.

During the construction phase there is a risk that earthmoving and other construction activities may pose a threat or approach some sacred sites. For these reasons, the AAPA clearances summarised in Table 14.2 include requirements for protecting nearby sites during construction.

MRM and its employees and contractors will adhere to the AAPA requirements. In addition, MRM has established internal processes, such as the requirement for a land clearance permit, to ensure activities potentially affecting sacred sites are approved by representatives of the community relations, environment and survey sections.

A number of certificates were issued for project components that are no longer proposed as part of the open cut project (eg. Glyde River weir, new power station and sand extraction from Glyde River). These certificates are provided in Appendix D.2.

**Table 14.2**

**Detail of Authority Certificates Issued by AAPA**

Reference	Land	Current Proposed Work	Special Conditions	Date Issued
D89/199 90/1015/1 (Doc 47537)	150 m wide, stretching for 4.5 km from a point on the southern bank of the McArthur River approximately 100 m downstream from the river crossing, to a point on the southern bank of the McArthur River approximately 1 km to the east from Mt Subbs.	Construction of a realignment channel to redirect the McArthur River around the open pit mine.		16 June 2004
D89/199 90/1015/1 (Doc 47538)	Land including Barney Creek realignment immediately north of the proposed open pit, following the northern bund wall, on the northern side of the Barney Creek valley.	Construction of the Barney Creek realignment.	No entry, no ground disturbing works, no damage to vegetation, no storage of material and parking of machinery allowed within areas of sacred site 6165-22.  A highly visible temporary protective fence is to be erected along the outer perimeter of the work areas in the vicinity of sacred site 6165-22 and maintained while the construction works are in progress.	16 June 2004
D89/199 90/1015/1 (Doc 47540)	Land area to include open pit and bund wall straddling the current bed of the McArthur River and extending approximately 2,400 m in its north to south axis and 3,000 m in its east to west axis, with the open pit itself measuring 1,600 m and 1,400 m and 420 m deep on completion.	Mining and construction works over a period of 25 years.	No entry, no ground disturbing works, no damage to vegetation, no storage of material and parking of machinery allowed within the radius of 30 meters of sacred site 6165-65 made up by a mature gum tree.  A highly visible permanent protective fence is to be erected along the outer perimeter of the work areas in the vicinity of sacred site 6165-65 and maintained while the construction works are in progress.	16 June 2004
D89/199 90/1015/1 (Doc 47541)	Land area south of Surprise Creek, immediately west of Carpentaria Highway.	Tailings storage facility to be built progressively in a series of lifts to a maximum height of 35 m over a 25-year life span of the project.		16 June 2004

Reference	Land	Current Proposed Work	Special Conditions	Date Issued
D89/199 90/1015/1 (Doc 47542)	Land located between the Carpentaria Highway in the west and Mt Stubbs in the east.	Overburden storage to hold waste rock from open pit mining, to be built progressively in a series of lifts to a maximum height of 80 m over the life span of the project.	No entry, no ground disturbing works, no damage to vegetation, no storage of material and parking of machinery allowed within the area of sacred site 6165-22.  A highly visible permanent protective fence is to be erected along the outer perimeter of the works area in the vicinity of sacred site 6165-22.	16 June 2004
D89/199 90/1015/1 (Doc 47546)	Area of land straddling the proposed McArthur River realignment approximately 400 m to the east of the open pit bund wall.	Mining of construction material.		16 June 2004
D89/199 90/1015/1 (Doc 47547)	Area of land located 1.5 km to the west of the Carpentaria Highway and approximately 1 km south of the proposed tailings facility, straddling a track running due west from the Carpentaria Highway.	Extraction of gravel.	No entry, no ground disturbing works, no damage to vegetation other than for the purpose specified in Condition 7 herein and no storage of material and parking of machinery allowed within the area of sacred site 6165-96 consisting of three low hills.  A highly visible temporary protective fence is to be erected along the outer perimeter of the works area in the vicinity of sacred site 6165-96 and maintained while the construction works are in progress. The fencing is to follow the existing dirt track.  The existing costeaning trench dug out in the northernmost of the three hills forming the 6165-96 sacred site is to be re-filled and rehabilitated to allow natural re-growth of vegetation.  Aboriginal custodians of the 6165-96 sacred site shall be notified and given the opportunity to supervise all restoration works carried out on the site.	16 June 2004
D89/199 90/1015/1 (Doc 47548)	Area of land straddling the Carpentaria Highway and a bush track running due west from the highway, immediately to the south of the proposed tailing facility.	Extraction of construction material.		16 June 2004

Reference	Land	Current Proposed Work	Special Conditions	Date Issued
D89/199 90/1015/1 (Doc 47549)	Land area to the west of the proposed open pit and north of the registered sacred site 6165-6.	Extraction of construction material.	No entry, no ground disturbing works, no damage to vegetation, no storage of material and parking of machinery allowed within the area of registered sacred site 6165-6.  A highly visible temporary protective fence is to be erected along the outer perimeter of the works areas in the vicinity of the registered sacred site 6165-6 and maintained while the extraction works are in progress.	16 June 2004
D89/199 90/1015/1 (Doc 47550)	Area of land to the south-east of the Carpentaria Highway, between the highway and Barney Creek.	Extraction of construction material.		16 June 2004
D89/199 90/1015/1 (Doc 47543)	Land immediately to the south of the existing McArthur River Mine Camp.	Expansion of the existing McArthur River Mine accommodation camp.		16 June 2004
D89/199 90/1015/1 (Doc 47551)	Area of land between the proposed McArthur River realignment and the bund wall of the open pit.	Construction works and use by heavy machinery involved in construction of the realignment and bund wall.		16 June 2004

### 14.6.2 Measures to Minimise Impact

Measures to minimise potential impacts on sacred sites are included as special conditions of the AAPA certificates for all of the project components (Table 14.2).

The approval conditions can require that the following measures be taken:

- Prevention of entry to sacred sites.
- Prevention of ground-disturbing works at sacred sites.
- Prevention of damage to vegetation at sacred sites other than for purposes specified in the condition.
- Prevention of storage of material and parking of machinery within areas of sacred sites, or within a certain radius of sites.
- Erection of highly visible temporary protective fences in specified areas (e.g. along the outer perimeter of work areas in the vicinity of sacred sites) and maintenance of fences while construction works are in progress.
- Notification of the Aboriginal custodians of the sacred sites and providing them with the opportunity to supervise any restoration works carried out on the site.

MRM remains committed to ongoing consultation with traditional owners through the construction and operation of the project, including during the implementation of the measures above, to ensure that any sensitive areas and/or issues are identified and managed to the benefit of all parties concerned.

MRM will undertake a predictive archaeological survey of the open cut project area. Should the survey identify areas that are likely to contain significant artefacts, it is proposed to have the services of an archaeologist available when these areas are being cleared. In this way potentially significant finds can be categorised and managed in accordance with the requirements of the *Heritage Conservation Act (1991)*.

### 14.6.3 Environmental Management Plan

The draft cultural heritage environmental management plan to be implemented for the open cut project is presented in Section 22.4.