

Department of Environment and Science  
Coal Business Centre  
PO Box 3028  
Emerald QLD 4720

19 January 2021

### **Gemini Project (APP0043095): Notification of Change**

This notice is provided to the Department of Environment and Science (the Department) on behalf of the applicant, Magnetic South Pty Ltd (**Magnetic South**), pursuant to s132(1)(a) of the *Environment Protection Act 1994 (EP Act)* to outline changes made to the layout of the proposed Gemini Project (the **Project**), since the application was originally submitted on 23 October 2019.

Changes to the general layout of the Project have been made in response to landholder consultation, submissions made on the EA application, further investigation of site conditions, and environmental assessments. The original Project layout is provided in the attached Figure 1, with the changed layout attached as Figure 2. The changes contribute to a reduction in the Project's disturbance area from 1961.2 ha in the original application to 1953.5 ha with the revised layout. The revised layout reduces the number of properties directly impacted by the proposed mine development.

These changes, and their rationale, are outlined below.

#### **Camp and Associated Infrastructure**

The original application proposed that the workers' accommodation and associated infrastructure (camp access road, sewage treatment plant, sewage pipeline and effluent irrigation management area) would be located on Lot 100 on RP882349 (**Redrock Park**), accessed via the public Redrock Park and Pine Grove Roads. This property is not owned by Magnetic South, and is located on the northern side of the Capricorn Highway.

The changed layout locates the camp and associated infrastructure to the south of the Capricorn Highway, on Lot 4 on RP801280 and Lot 1 on HT424, accessed via the main mine access road. Both of these properties are owned by Magnetic South.

This change was primarily in response to a submission made during the notification stage by the owner of Redrock Park. The submission raised concerns regarding potential traffic, noise and dust impacts on the residence and existing accommodation facility on the property. Whilst Magnetic South does not concede that the submission accurately outlines the likely impact of the proposed activities, by removing the proposed camp and associated infrastructure from Redrock Park, the potential for the impact identified in the submission has been reduced or removed.

The position of the relocated camp facilities was chosen based on the ecological and topographic values of the area. This location requires no clearing of remnant vegetation, for either the camp,

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sewerage facilities or access road, so does not increase the overall ecological impact of the Project. Similarly, the Land-based Effluent Disposal Assessment undertaken by Cardno (*Appendix N of the Updated Supporting Document*), concludes that the reasonably flat nature of the irrigation area and distance from significant watercourses is ideal for irrigation. Cardno also assess that the irrigation area lacks any significant drainage lines or watercourses and, as confirmed by the terrestrial ecology assessment, has already been cleared and therefore contains limited ecological value.

### **Train Loadout Access Road**

The original application included a train loadout (**TLO**) access road approaching the TLO from the west, via Redrock Park, along with another access from the east via the intersection of Red Hill Road and the Capricorn Highway.

Whilst Magnetic South does not concede that the submission by the owner of Redrock Park accurately outlines the likely impact of the proposed activities, to address the concerns identified in the submission regarding potential noise, dust and traffic impacts, the western TLO access road has also been removed from the Redrock Park Property. All access to the TLO will now be via the eastern Red Hill Road access, reducing or removing the potential impacts from dust, noise and traffic on the Redrock Park residence and accommodation facility. Removal of one of the TLO access roads naturally reduces the disturbance footprint of the Project.

Magnetic South has verified that construction equipment can be mobilised to the TLO along this access, including through the rail underpass either on low-loaders or by walking equipment through the underpass.

### **Environmental Assessments**

Relevant technical studies have been updated to incorporate these changes into their assessments, and these are included in the Appendices to the Revised Supporting Document. Findings from the Terrestrial Ecology, Surface Water, Soil and Land Suitability, and Traffic Impact Assessments were also considered when deciding on the location of the layout changes.

The Noise Impact Assessment (*Appendix M*) describes the revised location of the accommodation facility in the Project Description (Section 3.1), and includes the new layout as Figure 3.1. In the initial noise modelling undertaken for the Project, noise from the intermittent use of the camp and TLO access road was not considered a significant contributor to overall noise at the Redrock Park residence (SR22). Therefore, the removal of this access road has not resulted in any significant change to modelled noise levels at the property when modelling was updated to incorporate the new layout. The noise model predicts the potential for 1dB exceedance of the night-time criteria during year 2 only at the Red Rock Park residence. This potential exceedance is unchanged from the original submission and can be effectively mitigated, as outlined in Section 11.4.2 of the Revised Supporting Document.

Similarly, the Air Quality and GHG Assessment (*Appendix L*) describes the revised location of the accommodation facility in the Project Description (Section 2), and includes the new layout as Figure 3. Potential dust sources identified at SR22 include wheel generated dust from vehicles using the unsealed access road in the original layout. Although traffic loads are low and intermittent, wheel generated dust can take an extended period to disperse at night and during periods of low wind. This dust source contributed to the predicted PM<sub>10</sub> exceedances at SR22 identified in the original Air Quality Assessment. In the updated Air Quality Assessment, removal of this dust source has resulted in a reduction in the predicted number of exceedances at SR22, from 50 days in Year 15 in the original assessment, to 29 days in the updated assessment. These exceedances will be successfully mitigated, as outlined in Section 9.4 of the Revised Supporting Document.

The Surface Water Assessment (*Appendix B*) demonstrates that both the original and updated camp and associated infrastructure locations are not within the 1% AEP flood zone under either existing or developed conditions. This is shown in Figure 4.15 (existing conditions) and Figure 7.1 (developed conditions). As such, no change to previously described flood impacts would result from this minor change. Additionally, the camp and associated infrastructure will not produce any mine affected water and are not considered significant risks in terms of emissions to surface water quality in the receiving environment. In summary, impacts to surface water values associated with the relocation of infrastructure has not significantly changed. Additional surface water impact assessment as a result of the layout is not considered necessary.

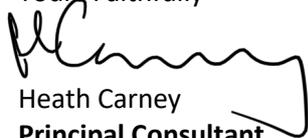
The Traffic Impact Assessment (*Appendix A*) undertaken for the initial application concluded that overall impacts to the existing traffic network are not expected to be significant based on an increase in mobilisation of Project vehicles on local and State roads. Moving the camp from the Redrock Park property on the northern side of the Capricorn Highway to the Magnetic South property, accessed via the mine access road, also removes the need for transport of the workforce across the highway. This reduces traffic loads on the Redrock Park and Mine Access intersections by up to 28 light vehicles and buses a day. This traffic is eliminated rather than relocated, as the workforce will remain within the Project area on the south of the highway. During the construction and operational phase, only two daily vehicle movements are expected on the TLO Access road. Moving these two vehicles from the Redrock Park location to the Red Hill Road intersection will have no significant impact on traffic. Therefore, the conclusion that the Project's impacts to the existing traffic network are not significant remains unchanged. The specific traffic impacts associated with the Redrock Park property are reduced.

In summary, there are no increased traffic impacts on public roads associated with revised infrastructure layout. Intersections with the Capricorn Highway are at the same locations as the original application.

Magnetic South submits that the change set out in this notice is a "minor change" to the original application and s 133(2) of the EP Act applies as it does not adversely affect the administering authority's ability to assess the change application as:

1. these changes have been undertaken to address issues raised in a submission made by the owner of Redrock Park;
2. the changes result in:
  - a. reduced potential impacts on the affected landowner;
  - b. no increase in potential impacts on land other than land owned by Magnetic South;and
3. the change is unlikely to attract any further submissions relating to the activities the subject of the change.

Yours Faithfully



Heath Carney

**Principal Consultant**

**AARC Environmental Solutions**

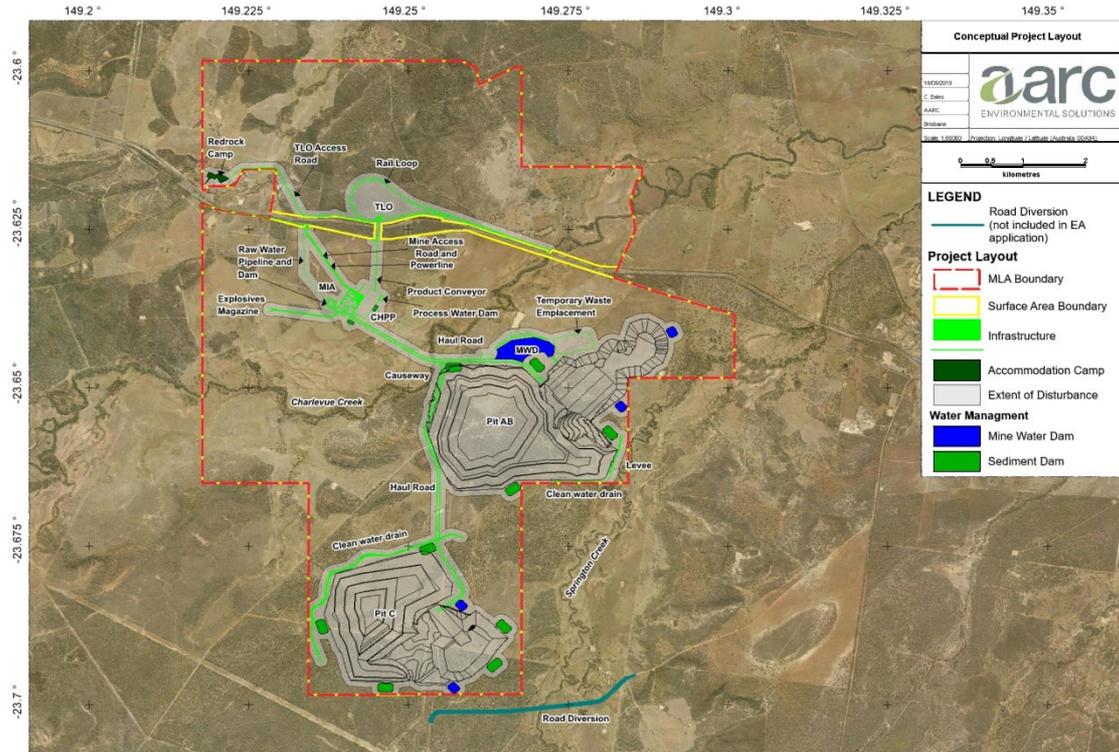


Figure 1 Original Project Layout

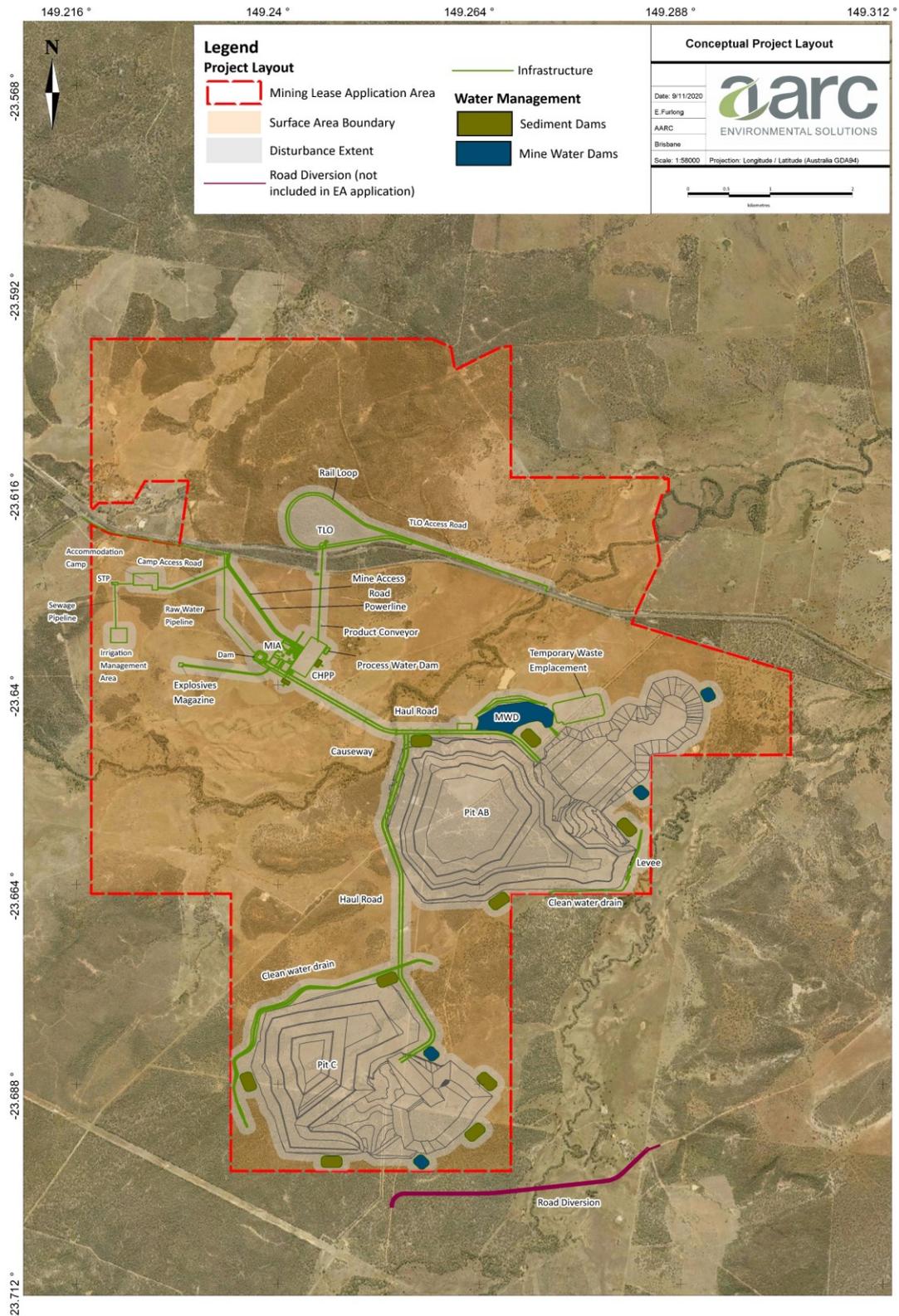


Figure 2 Revised Project Layout