

# **HERA MINE**

## **SECTION 75W MODIFICATION**

**Power lines from ventilation rise to site camp**

**Project Approval 10\_0191**

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# 1. INTRODUCTION

YTC Resources received Project Approval (PA) 10\_0191 from the Department of Planning and Infrastructure on the 31 July 2012. During the Environmental Assessment (EA) process YTC discussed the electricity distribution network (section 2.11.3.2 in the EA), in which it was discussed that power will be provided to the ventilation fan from the Hera site power station. YTC propose to modify the EA to extend these power lines an additional 1000m from the surface ventilation fan infrastructure location to the new camp site. The line will be contained within the existing property owned by the company and will follow existing site tracks causing minimal disturbance to the vegetation, refer to **Figure 1** and **Figure 2** for further information on the location of the power lines at the Hera Site ('The Peak' property).

## 1.1 Site contacts

Name	Position	Phone	Email
Rimas Kairaitis	Managing Director/Director	6361 4700	Rimas.Kairaitis@ytcresources.com
Dean Fredericksen	Chief Operations Officer	6361 4700	Dean.Fredericksen@ytcresources.com
Sean Pearce	Hera General Manager	6361 4700	Sean.Pearce@ytcresources.com
Sladana Haures	Environmental Officer	6361 4700	Sladana.Haures@ytcresources.com

## 2. POWERLINES DESIGN

The proposed power lines will be designed as per the design provided in **Appendix 1** (provided as an additional attachment). Steel poles will be used for the 15 additional power line poles (PP2 to PP15). All overhead power lines and underground construction will be in accordance with the latest copy of E.E Overhead and Underground construction manuals CEOM7199. The power line construction will provide a more reliable and efficient source of energy to the new mine camp and will not increase the electricity demand from the original requirements noted in the Hera Project Environmental Assessment.

The power lines will be overhead high voltage line using steel poles, steel crossarms and aluminum alloy conductors. An earth wire is strung over the power conductors.

The power lines will follow previously cleared tracks to ensure minimal clearing would be required; however a few trees which do not provide adequate clearance would need to be removed. Wherever possible the trees canopies will be trimmed to allow the needed clearance for the power lines as opposed to tree removal. Clearing is based on avoiding contact by the trees to the overhead line during high winds. Less clearing is required around the pole structures & more is needed in mid-span (due to conductor blow-out, approximately 5 meter clearance will be required at the mid span). Small vegetation (< 5m mature height) is not required to be cleared. Trees that can conceivably fall onto the line may need to be trimmed or removed.

The equipment/vehicles required at Hera to carry out the installation of the power lines would be a crane borer, EWP/line truck and two 4WD's.

The construction phase is expected to last approximately two weeks, and once completed the only upkeep will be a yearly service to make sure everything is operating as required and that surrounding vegetation is not threatening to make contact this the power lines. All personnel working on the power lines will be housed at the current site accommodation.

Please refer to the notes in **Appendix 1** for further information on the power line design.

Below are photos of the track which the proposed power line it to be constructed on.











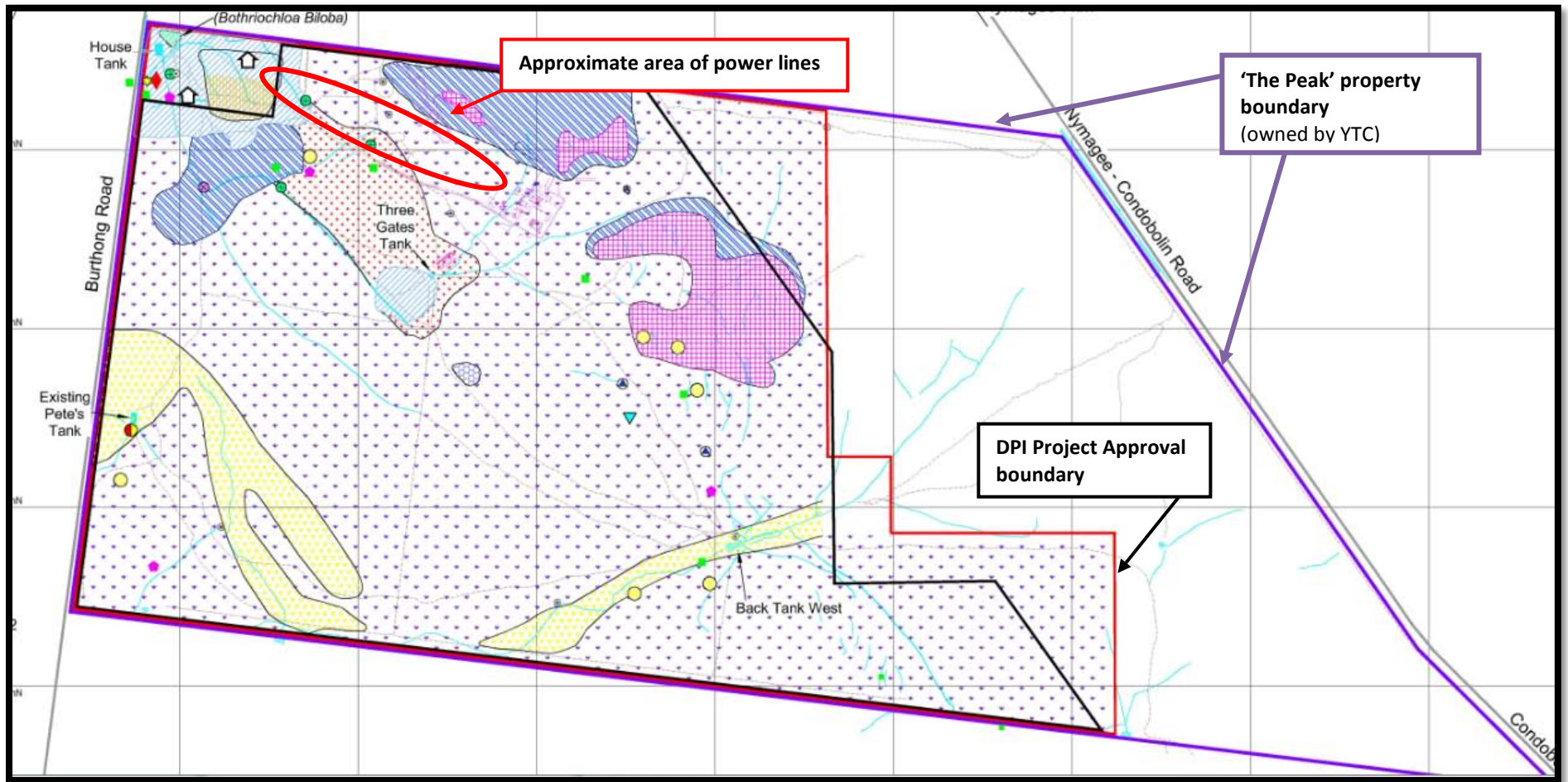


Figure 1 Hera Project Boundary

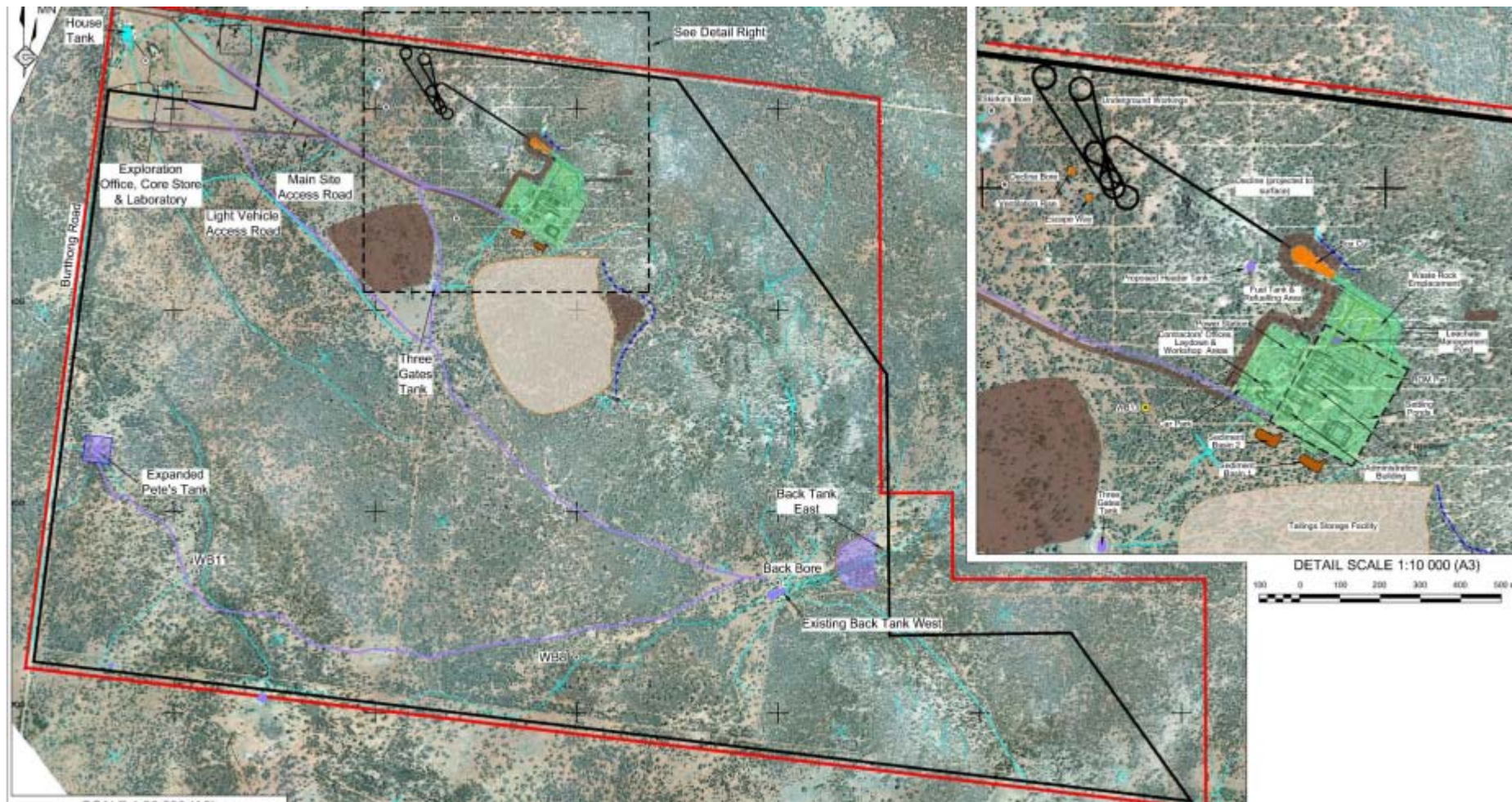


Figure 2 Aerial Photo of the Project Area

### 3. POTENTIAL IMPACTS AND MANAGEMENT MEASURES

#### 3.1 Noise

Noise levels may be slightly elevated during the construction phase of the power lines. Noise may be a result of additional vehicles on site or produced by equipment utilized during the construction of the power lines, and vehicles. As it is expected that construction activities will be completed within two weeks, and the distance to the closest residing neighbor is 2km, it is expected that noise will have minimal impact on the surrounding community.

YTC have noise limits that are to be complied with as per the Project Approval conditions set by DPI. These limits are tabled below. If necessary, engineered noise controls may be implemented, including but not limited to constructing or purchasing enclosures or barriers around noisy equipment to minimise the output of noise created by equipment. Contractors will be required to provide suitable and maintained equipment for use at the site. Hera Resources will control the type of equipment supplied and will review any relevant documentation relating to the equipment as per the YTC Noise Management Plan (YTC EMP 5).

The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land or on more than 25 per cent of any privately-owned land.

Table 2: Noise Criteria dB(A)

Receivers	Day	Evening	Night	
	( <i>L<sub>Aeq</sub>(15-minute)</i> )	( <i>L<sub>Aeq</sub>(15-minute)</i> )	( <i>L<sub>Aeq</sub>(15-minute)</i> )	( <i>L<sub>A1(max)</sub></i> )
All residential receivers	35	35	35	45

Note: Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

However, these criteria do not apply if the Proponent has an agreement with the relevant owner(s) to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

The YTC Environmental Officer conducts noise monitoring on a quarterly basis, or as needed. A noise monitoring test will be done during the construction of the power lines.

Noise levels at the camp will be reduced in the long run as a result of installing the power lines as generators will not be required at the camp site.

#### 3.2 Dust

Additional dust may also be produced during the construction phase due to the additional activity on unsealed dirt roads and installation of the power poles.

The dust is not expected to be a major issue and short lived (only during the construction phase), however YTC commit to using water and/or chemical suppressants for dust control. Infrequent travel upon unpaved roads and vehicle speed controls are expected to minimize potential dust. Travel on any one access road is expected to be limited given the limited duration of work at each pole site work area, the limited amount of vehicles to be used during construction and the small size of the construction crew.

Dust is monitored via two depositional dust gauges and two high volume air samplers at site. The allowable limits are shown below. To minimize the dust generated at site YTC spray unsealed access roads and other trafficked areas with water carts (using chemical suppressants) as required when visible dust is generated and restrict speed limit to 40 km/hr on all internal access roads. Dust management will be done in accordance with YTC's Air Quality and Greenhouse Gas Management Plan (YTC EMP 4).

<i>Table 4: Long term impact assessment criteria for particulate matter</i>			
<i>Pollutant</i>	<i>Averaging Period</i>	<i><sup>d</sup> Criterion</i>	
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>	
<i>Table 5: Long term impact assessment criteria for particulate matter</i>			
<i>Pollutant</i>	<i>Averaging Period</i>	<i><sup>d</sup> Criterion</i>	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>	
<i>Table 6: Long term impact assessment criteria for deposited dust</i>			
<i>Pollutant</i>	<i>Averaging Period</i>	<i>Maximum increase in deposited dust level</i>	<i>Maximum total deposited level</i>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

### 3.3 Vegetation clearing

Some vegetation removal or tree trimming will be required to minimize the risk of fire caused by tree branches making contact with the power lines. Tree removal will be done in accordance with the Hera Biodiversity Management Plan (this management plan is currently only in draft). Trees will be trimmed or removed with appropriate equipment, typically clippers and chainsaw. If a tree is required to be removed it will be placed as close as possible, and in a safe location, to the locality it was removed from.

As per the Biodiversity Management Plan, if any animals are injured or require relocating they will be handled by the Environmental Officer or the Senior Field Technician which are both trained and licensed animal handlers. If it is possible to collect any seed from the trimmed or cleared vegetation then this will be done at the time of clearing.

### **3.4 Cleanup and Post-construction Restoration**

During construction, construction debris will be picked up daily from line work areas and taken away to be recycled or disposed off. YTC will conduct a final inspection to make sure that clean-up activities have been successfully completed as required.

Once the project is completed the power lines will be removed and disposed of and the existing access roads will be re-vegetated

### **3.5 Any impact on original Project Approval conditions**

This proposed amendment will have no impact on the Project Approval conditions, issued 31 July 2012. This modification will simply serve as an amendment to the Hera EA.

## **4. COMPLAINTS MANAGEMENT**

YTC have a phone number and email address which have been created to record community complaints, the phone number being 1300 016 240; and an email address [complaints@ytcresources.com](mailto:complaints@ytcresources.com) . Complaints made against YTC are managed via the YTC Complaints Management Plan.

Appendix 1  
Proposed power line design  
(Provided as additional attachment)