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BELVEDERE COAL PROJECT

INITIAL ADVICE STATEMENT

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For:

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BELVEDERE COAL PROJECT
INITIAL ADVICE STATEMENT

for
Belvedere Coal Management Pty Ltd

1 INTRODUCTION

The Belvedere Coal Project (BCP) involves the development of a greenfield underground coal mine. The project area is located 7 km north-east of Moura in the Bowen Basin of Central Queensland. The proposed mine will produce up to 11.5 Million tonnes per annum (Mtpa) of Run of Mine (ROM) coking coal for the export market. The mine will utilise the longwall mining method and will have a mine life of approximately 30 years.

The project proponent is the Belvedere Joint Venture Parties consisting of Vale Australia Pty Ltd (Vale) (51%), Aquila Resources Ltd (Aquila) (24.5%) and AMCI Pty Ltd (AMCI) (24.5%). Belvedere Coal Management Pty Ltd (BCM) currently manages the project on behalf of the joint venture parties and is a wholly owned subsidiary of Vale.

The mining lease applications for the project (Table 2) were progressively lodged with the Department of Employment, Economic Development and Innovation (DEEDI) (formally the Department of Mines and Energy (DME)) between August 2008 and March 2009. The boundaries of the mining lease applications areas are shown in Figure 1.

The project is proposed to be assessed as a significant project requiring an Environmental Impact Statement (EIS) under the *State Development and Public Works Organisation Act 1971* (SDPWO Act). Declaration as a significant project will initiate the EIS process and an application for an Environmental Authority.

The project will also be referred to the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

1.1 PURPOSE OF THIS DOCUMENT

This Initial Advice Statement (IAS) provides introductory information on the project. The IAS was prepared for submission to the Department of Infrastructure and Planning (DIP) to assist the Coordinator General to make a decision regarding the determination of the project as a significant project requiring an EIS.

2 PROJECT DESCRIPTION

2.1 PROJECT AREA

The BCP is located near Moura, in the Banana Regional Shire Local Government Area in Central Queensland. The site is defined by the boundary of the mining lease application areas shown in Figure 1 and covers an area of approximately 13,000 ha. The project area eastern boundary is adjacent to a series of mining leases held by Anglo Coal (Dawson) Limited, which include an operational open cut mine and historical underground mines.

The BCP is located close to well established infrastructure including rail, power, water, sealed roads and local mining communities which will service the project. Rail corridors link Taroom to Moura and Moura to the Port of Gladstone, and the Leichhardt, Dawson and Burnett Highways pass nearby the project site. A sealed airstrip is located just south of Moura which is predominantly used for local agricultural, recreational and emergency flights. Direct commercial flights to Banana Shire arrive at the nearby Thangool Aerodrome. Additional infrastructure in the vicinity includes:

- Roma to Gladstone coal seam gas pipeline;
- High voltage transmission power lines and Moura substation;
- Baralaba Coal load-out;
- Queensland Nitrates' ammonium nitrate plant;
- Queensland Cotton's Moura Cotton Gin;
- Graincorp's Wheat dump and grain silos; and
- Moura cattle saleyards.

Land use within the Banana Shire is primarily cattle grazing with limited areas of dry land (grain sorghum and wheat) and irrigated cropping (cotton) on the areas of better soils or closer to watercourses.

The site itself is located on the mature, eastern slope of the Dawson River Valley. The topography is of low relief with gently undulating slopes and is drained by tributaries of the Dawson River, principally Kianga Creek. The majority of the site has been cleared for grazing although there are small areas of remnant vegetation on the site. Primary access to the site is via sealed roads with onsite access via both public roads and private tracks.

2.2 PROJECT TENURE

The BCP proposes to develop the southern portion of the Exploration Permit for Coal 783 (EPC783). There are currently eight Mining Lease Applications (MLAs) and six Petroleum Lease Applications (PLAs) over the EPC which have been lodged with the DEEDI in accordance with the *Mineral Resources Act 1989* and the *Petroleum and Gas (Production and Safety) Act 2004* (Table 1). The MLAs and the PLAs have the same boundaries (i.e. MLA80148 and PLA269 are over the same parcel of land). These MLAs and PLAs will

remain as applications until the corresponding Environmental Authority has been approved by the Administering Authority.

Table 1
Mining and Petroleum Lease Applications

Mining Lease Application	Petroleum Lease Application
MLA80148	PLA269
MLA80149	PLA270
MLA80150	PLA271
MLA80153	PLA290
MLA80154	PLA291
MLA80155	PLA292
MLA80158	N/A
MLA80159	N/A

2.3 MINING ACTIVITIES

The BCP is anticipated to mine multiple coal seams. This methodology could potentially involve three underground longwall mines operating simultaneously. In the early production stages, the longwall operations are expected to produce approximately 1 to 2 million tonnes per annum (Mtpa) and will eventually exceed 10 Mtpa. The target seams within the resource area have been selected because of their superior thickness and quality.

The target seams also have a high gas content, which will require extensive surface pre-drainage works in order for underground mining to safely take place. Such works will include the construction of horizontal wells comprising surface to in-seam (SIS) boreholes connected to vertical wells, which will enable extraction of gas and water from the proposed mining area.

2.4 INFRASTRUCTURE REQUIREMENTS

2.4.1 Mine Surface Facilities

The possible location of mine surface facilities is shown in Figure 1, and infrastructure is likely to include:

- Offices;
- Bath-house and lamp cabin;
- Workshops and stores;
- Electrical substation;
- Fuel facilities; and
- Potable water treatment plant.

Access to the mine is still being studied but is likely to be via two vertical shafts that allow workers and materials access. ROM coal will be conveyed to the surface via a drift from the working seams. Other minor surface infrastructure will also be located above the underground mine workings. These will include ventilation shafts, gas drainage boreholes, underground communications cables, services and boreholes for supply of materials from the surface.

On the surface, ROM coal will be conveyed to the Coal Handling and Preparation Plant (CHPP). The CHPP will include:

- ROM coal stockpile;
- Crushing and screening facilities;
- Washplant; and
- Product coal stockpiles.

The raw coal will be crushed, sized and washed at the CHPP. Options for rejects and tailings disposal are under consideration and the appropriate method of reject and tailings disposal will be determined during feasibility studies.

2.4.2 Rail

Processed and washed coal will be transported from the CHPP via a fully automated product handling and train load out facility and transported by rail to Gladstone for export. A rail spur approximately 4 km long will be required to connect the BCP to the Moura to Gladstone rail line. The spur will be designed to optimise the capacity of the Moura rail system.

2.4.3 Roads

Road utilisation, wear and traffic congestion will be investigated during the design stage of the BCP. Existing roads will be used wherever possible to access the site.

2.4.4 Power Supply

Investigations are underway to assess the feasibility of expanding existing power generation facilities to supply power to the project. Project power requirements will be further investigated during the feasibility studies.

2.4.5 Water Supply

A number of water supply options are being investigated as part of the project's feasibility study. These options include:

- The feasibility and timing of the proposed Nathan Dam;
- The feasibility of obtaining water via various pipeline options from the Burdekin, Fitzroy or another catchment;
- Use of groundwater within the area of the BCP; and

- Treatment and storage of coal seam water to augment the water supply for mine site purposes, coal washing and other uses.

2.5 PROJECT NEED

2.5.1 Employment Opportunities

The project is anticipated to create more than 600 jobs during construction and require at least 500 permanent positions to operate as shown in Table 2. Additional people will be indirectly employed as a result of flow-on effects of local and state suppliers and contractors. A number of these employment opportunities are predicted to be filled from the local communities of Moura and the Banana Shire and Dawson region.

Table 2
Anticipated Employment Opportunities

STAGE	HUMAN RESOURCES (No. of personnel)
Degassing	10
Construction	>600
Mining	>500
Rehabilitation	20

2.5.2 Project Investment and Significance

Preliminary estimates indicate the capital cost of the BCP to full production will require investment in excess of AUD $2 billion.

The BCP will have a significant effect on the local region and state by:

- Recovering high quality coal resources for metallurgical coal as well as blending for coke making in the iron and steel industry, with total potential sales of AUD$13.8 b -$21.3 b;
- Creating more than 500 permanent jobs;
- Increasing regional development within the Dawson region; and
- Generating significant economic benefit on regional, state and national scales as a result of export income, royalties of at least AUD $965 million, government revenue through taxes and rates, and local expenditure of employee incomes and services and suppliers.

3 STAKEHOLDER CONSULTATION

A comprehensive stakeholder consultation program will be conducted for the BCP. The program will be conducted throughout the EIS preparation phase and will be integrated with environmental impact assessment and project planning. The program will include consultation with all affected and interested persons, and any other relevant stakeholders identified during the consultation program.

The objectives of the stakeholder consultation program will be to:

- Establish open communication with all stakeholders;
- Identify stakeholder issues and concerns with the project;
- Address all stakeholder issues through environmental impact assessment, project planning or communication;
- Provide feedback to stakeholders in relation to their issues and how they have been addressed; and
- Facilitate stakeholder understanding of the project.

The initial phase of the stakeholder consultation program will involve the identification of stakeholder issues. This phase will involve individual semi-structured interviews with all stakeholders. The interviews will include provision of an overview of the project; the EIS and project approval process; and the consultation program. A project information sheet will be provided to stakeholders to assist with this phase.

Once the initial phase has been completed, strategies will be developed to address stakeholders' issues. The consultation methods used during subsequent consultation and feedback phases will be dependent on the stakeholder, the issues raised and the proposed response strategies. A range of methods are anticipated to be used, including individual meetings, group presentations and distribution of information sheets.

BCM have held extensive discussions with landholders during exploration activities. This proactive consultation is intended to be continued during the development of the project.

Aboriginal Group Consultation

Consultation with the Gangulu People in relation to the Aboriginal cultural heritage will be conducted in accordance with the requirements of the *Aboriginal Cultural Heritage Act 2003*.

4 EXISTING ENVIRONMENT AND POTENTIAL IMPACTS

An EIS will be prepared for the project. The EIS will address the Terms of Reference that will be developed for the project in consultation with the Administering Authority. The key areas that are expected to be investigated include:

- Soils and land capability;
- Subsidence and rehabilitation;
- Ecology;
- Surface water and mine water management;
- Groundwater;
- Noise;
- Air quality;
- Traffic and transportation; and
- Social and economic impact assessment.

The EIS will also include an Environmental Management Plan (EM Plan) for the project.

For the purposes of this IAS, desktop level analysis of the environmental values and potential impacts from the activities associated with the BCP are presented in the following sections. These areas will be further studied during the preparation of the EIS.

4.1 SOILS AND LAND CAPABILITY

In Queensland, agricultural land is classified using the planning guideline *Identification of Good Quality Agricultural Land 1993 (GQAL)*. Within the mine lease areas, three of the four classes (Class A, B and C) of agricultural lands in Queensland are present with Class C (only suitable for grazing) being the most prevalent. Cropping land associated with mining development is typically downgraded post-mining. However grazing land can largely be preserved throughout the life of an underground operation such as the proposed BCP. The EIS will characterise the soil profile and land capability of the underground mining area through a desktop review of existing data and a visual assessment of the surface soil exposures to verify soil units.

4.2 SUBSIDENCE

Longwall mining, the preferred mining method for BCP, typically results in surface cracking and depressions up to the equivalent depth of coal removed. The depth and extent of any subsidence will be investigated as part of the EIS and will underpin many of the other studies. The subsidence study will include an assessment of the nature and extent of surface and subsurface cracking as well as produce cumulative subsidence contours after the completion of mining in each of the seams.

4.3 ECOLOGY

The proposed BCP mine lease area is a modified landscape, predominantly used for agricultural activities. Vegetation communities within the lease area are therefore typically within small isolated pockets or associated with the Kianga Creek riparian zone. Of these vegetation communities, a number of listed Remnant Ecosystems (RE's), according to the State and/or Commonwealth legislation, have been identified as being possibly present. The type, location, extent and possible project impact on these listed RE's will be assessed as part of the EIS ecological assessment.

The ecological assessment will also include surveys of State and Commonwealth listed flora and fauna species.

4.4 SURFACE WATER AND MINE WATER MANAGEMENT

The BCP site has a relatively low relief and is traversed by Kianga Creek which flows from the south east to the north west. There is limited information at this stage on the surface water parameters of Kianga Creek however its catchment is influenced by a number of anthropogenic activities including grazing, agriculture, industry and urban-based activities. It is therefore probable that the Kianga Creek catchment is a moderate to highly disturbed catchment. Studies on surface water hydrology and water quality throughout the BCP area including Kianga Creek will be undertaken as part of the EIS process.

The management of mine affected water is recognised as a key issue for the BCP and will be taken into account at all stages of mine design and planning, particularly in the areas of water recycling and reuse. Management issues and water use modelling will be assessed within the EIS study.

4.5 GROUNDWATER

Previous local information indicates there are probably limited groundwater reserves within the proposed mine lease area. Further studies of the groundwater reserve and the impact of the BCP will be undertaken to gain an in-depth understanding of these groundwater systems at the local and regional scales during the EIS.

The groundwater assessment for EIS will investigate the presence of groundwater through a drilling and monitoring program, and evaluate potential impacts of the BCP on the groundwater system by modeling which will take into account the nearby Dawson Mine.

4.6 NOISE

The proposed BCP will have a number of noise sources including coal handling infrastructure, ventilation fans for the underground workings and mobile machinery. Due to the proximity of the township of Moura and the expected number of rural residents, the impact of noise on the local community is likely to be an important issue for the BCP. As such, noise is expected to be taken into account at all stages of mine design and planning. A comprehensive study of the predicted impact of noise originating from the BCP will be undertaken during the EIS and compared to the relevant Queensland legislation and DERM guidelines.

4.7 AIR QUALITY

The airshed of the Moura area is expected to be currently affected by the neighbouring open cut mining operations and surrounding local agricultural activities. The proposed BCP will be an underground operation and therefore is predicted to have a lower rate of dust deposition and particulate matter than these existing sources. The cumulative impact of the BCP on the existing airshed of the area will be further assessed during the EIS study.

4.8 TRAFFIC AND TRANSPORT

The proposed mine lease area is traversed by the Dawson Highway, a major regional highway which links the township of Moura and those further west with Biloela and Gladstone. The primary access to the BCP will be via a sealed road linked to the Dawson Highway. The traffic and transport impact study for the EIS will be undertaken in accordance with the Department of Main Roads' *Guidelines for the Assessment of Road Impacts of Development Proposals* and will include assessments of the Dawson Highway, site access roads and tracks and their intersections during both construction and operational stages.

4.9 SOCIO-ECONOMIC

The BCP is located in the Fitzroy Basin area within the Shire of Banana. The nearest township to the proposed site is Moura, a small mining and rural community with a population of approximately 2,000 residents. The nearest major regional centre to the site is the city of Gladstone, located approximately 150 km along the Dawson Highway. Facility and service provision in Moura is characteristic of a small mining and rural community and includes a range of medical, education and emergency services. The local area also offers a number of sporting and recreational organisations, welfare and community support services and cultural and leisure facilities.

An assessment of the impact of the BCP on the socio-economic environment of Moura and the Banana Region will be carried out during the EIS. This assessment will include a comprehensive community consultation and engagement process to determine the project's potential influence on the local population, community infrastructure, health and education facilities, housing/accommodation and employment.

4.10 ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management Plan (EM Plan) will be developed and implemented to identify and manage the risks and effects of the project. The EM Plan will detail actions and procedures to protect environmental values and mitigate against adverse impacts, and enhance beneficial environmental and social impacts during the design, construction and operation phases of the coal mine.

The EM Plan will become a key reference document in that it will convert the undertakings and recommendations in the EIS into a set of actions and commitments to be followed by designers, constructors and operators. The monitoring, reporting and auditing of the performance criteria, including responsibilities, timing and format will also be specified. The EM Plan will also make provision, as appropriate, for unseen events by outlining corrective and preventative actions which may be addressed and implemented in these situations.

The EM Plan will be prepared as a stand-alone document, so that it may be extracted from the main body of the EIS.

* * *

for
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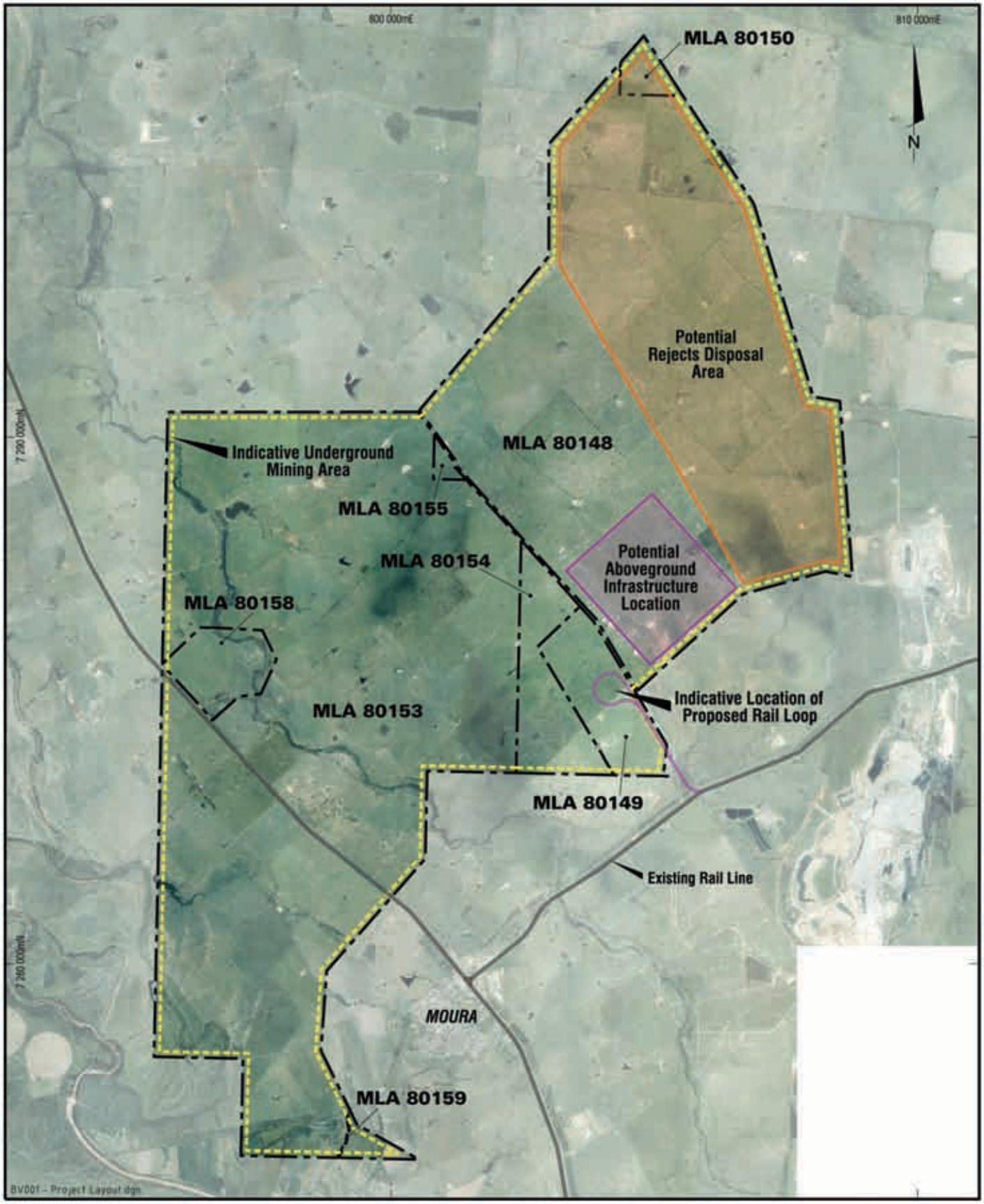
FIGURES



Mine Lease Boundary

Indicative Underground Mining Area

Scale 1:100,000

2 0 2 4km

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BELVEDERE COAL PROJECT

Project Layout

FIGURE 1