U&D MINING INDUSTRY

Initial Advice Statement

Broughton Coal Mine Project (EPC818)

U&D Mining Industry (Australia) Pty Ltd

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Initial Advice Statement
Broughton Coal Mine Project

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1. Introduction

1.1 Background

U&D Mining Ltd (U&D) is proposing to develop the Broughton Coal Mine Project (the Project), which involves the development of a greenfield open-cut coal mine coal mine located within the Isaac Regional Council (IRC) approximately 30km north-west of Nebo Township and 100km south-east of Mackay, Queensland (Figure 1).

The proposed mining operations are located within MLA 70511, which is located within tenement EPC 818 and target the coal seams within the Rangal Coal Measures. The Project has been designed to deliver an average annual ROM production of up to 3 million tonnes per annum (Mtpa) of export grade, high ash, bituminous, metallurgical and thermal coal over an approximate 15 year mine life commencing in 2017.

The mining process will be open cut strip mining using standard truck and excavator methods employed in the coal industry. To maximise the resource recovery, highwall auger mining techniques will be employed to extract coal that is unable to be mined economically using traditional open cut methods. Highwall auguring is anticipated to facilitate the recovery of an addition 3.7 Mt of ROM coal, which is otherwise unrecoverable through open pit mining operations.

1.2 The Proponent

The Proponent for the proposed Broughton Coal Mine Project is U&D Mining Industry (Australia) Pty Ltd (U&D) ACN 165 894 806. U&D is a newly formed public company incorporated in Australia and successfully listed on the ASX in February 2014. U&D is a coal exploration and development company with a strong focus on increasing its resource base in Queensland's Bowen Basin region. U&D currently has 528.5 million tonnes (Mt) of JORC resources, with the company focused upon becoming a significant producer of coal within Australia. U&D has one of the largest holdings in Bowen Basin with 27 tenements across an area of 4581km^2.

U&D's majority shareholder is China's third largest coal producer; China Henan Energy and Chemical Group Co Ltd.

1.2.1 Contact Details

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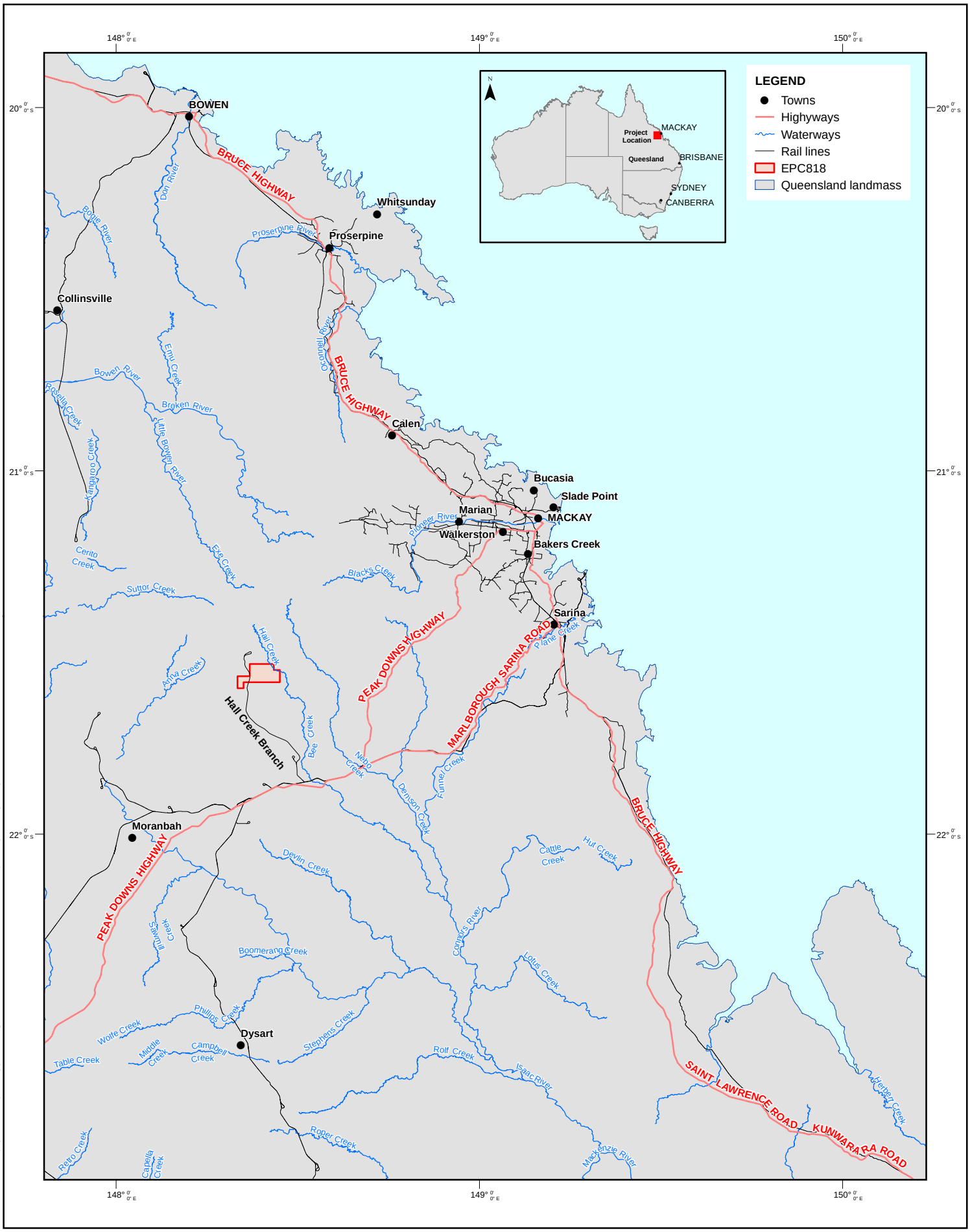

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Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:

- Australia and Queensland landmass:(C) Copyright Commonwealth of Australia (Geoscience Australia) 2004
- Exploration permits coal (EPC), cities and towns, roads and waterways
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U&D Mining Industry (Australia) Pty Ltd

Figure 1
Regional Location

Broughton Mine Initial Advice Statement

Queesland

GIS Handling: Bashar Nseir

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1.3 Project Need

Exploration within the project area has been conducted since 1971. Recent exploration activities, include 97 exploration holes between 2002 and 2005, four deep holes and one cored hole in 2010. U&D has continued exploration and assessment activities since acquisition of the tenement in 2012. Exploration activities have included regional drilling, geotechnical surveys, geological mapping, environmental surveys, and cultural heritage work.

Exploration activities have defined a resource of 121 million tonnes (Mt) of economically recoverable coal. Mining operations will mine up to 3 Mtpa ROM coal to produce 2 Mtpa of product coal for export markets. The resource is a mix of both coking and thermal coal. Production from the Broughton Coal Project will comprise three products: high quality hard coking coal, soft coking coal, and thermal coal.

1.4 Purpose and scope of this Initial Advice Statement

This Initial Advice Statement (IAS) forms part of the supporting documentation required for an Application to an Environmental Impact Statement (EIS) under Chapter 3 Section 37 of the *Environmental Protection Act 1994* (EP Act) (Appendix 1). This IAS scopes the potential impacts (positive and negative) to be investigated in detail in an EIS.

This IAS will form the basis of a Terms of Reference (ToR) for the EIS. The ToR will be developed following a legislative framework using the findings from further research and studies, and community engagement.

This IAS has been submitted to the Chief Executive of the Department of Environment and Heritage Protection (EHP) in accordance with Section 41 of the EP Act.
It has been prepared to:

- support an application for the preparation of an EIS
- assist in the development of a draft Terms of Reference for the EIS
- enable stakeholders and the local community to determine their level of interest in the Broughton Coal Mine Project.

2. Location

2.1 Regional Context

The Broughton Coal Mine Project is located within the Bowen Basin, which contains the largest coal reserves in Australia and contains one of the world's largest deposits of bituminous coal. The Basin contains much of the known Permian coal resources in Queensland and virtually all of the known mineable prime coking coal.

The Project lies within the Isaac Regional Council (IRC) approximately 30km north-west of Nebo Township and 100km south-east of Mackay, Queensland (Figure 2).

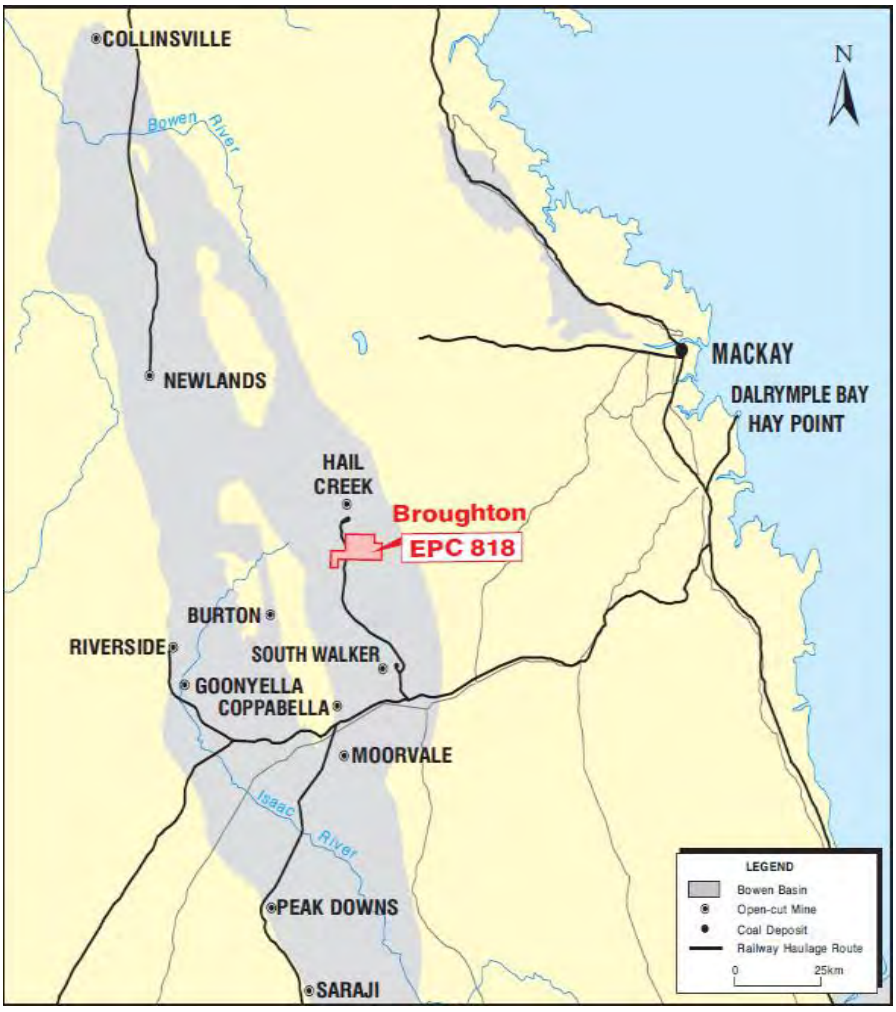


Figure 2. Broughton location

2.2 Local Context

Located only 30km from Nebo, the project is very well situated relative to existing infrastructure, with the Suttor Creek Development Road running through the tenement and the Hail Creek rail spur, which ties into the Goonyella railway line, just to the south west of the site.

2.3 Land Tenure

2.3.1 Project Tenure

The proposed MLA boundary lies within Exploration Permit Coal (EPC) 818 and adjacent to the existing Mining Lease ML4738 for Hail Creek Mine (Figure 3). Tenure details are shown in Table 1.

Table 1. Project Tenure

Tenure	Area (ha)	Lease Term	Local Government
EPC 818	4,800	Until Nov 2017	
MLA 70511	2,227	27 years	Isaac Regional Council

2.3.2 Current Background Tenure

The property tenure within the Project area, other than some road reserves, is freehold and is largely located within the pastoral operations of 'Fort Cooper', which is owned by Ian Michelmore (Table 2). The Department of Transport and Main Roads is responsible for the Suttor Developmental Road, which traverses the southern portion of the Project area from east to west. There are also easements over the site for electricity infrastructure.

The land within the Project area and surrounds has been used for cattle grazing in the past, with stock handling yards, dips, fencing and stock watering points still evident. Extensive land clearing has previously occurred, with the land maintained primarily as pasture for grazing purposes. No signs of previous cropping are evident within MLA 70511

Table 2. Land Tenure

Real property description	Tenure type	Landholders	Current land use	Approximate area affected by the project (ha)
1 SP162553	Freehold	Ian Ferguson Michelmore	Grazing	633.35
2 WHS373	Freehold	Ian Ferguson Michelmore	Grazing	1,222.6
A WHS416	Easement	Ergon Energy	Easement	3.53
B WHS411	Easement	Ergon Energy	Easement	1.85

Suttor Developmental Road	Road Reserve	Department of Transport and Main Roads	Road Reserve	21.8
Unnamed connection Road to Suttor Developmental Road	Road Reserve	Department of Transport and Main Roads	Road Reserve	2.62
Stock Route	Stock Route	Department of Transport and Main Roads	Road Reserve	346.43

2.3.3 Native Title

The traditional landowners of the region are the:

- Barada Barna People
- Wiri People

Figure 4 shows the Native Title areas relevant to the Broughton Coal Mine Project.

2.3.4 Overlapping Tenure

The Project is overlapped by petroleum tenure as detailed in Table 3 and shown in Figure 5.

Table 3. Holders of tenure over the Broughton Coal Mine Project area

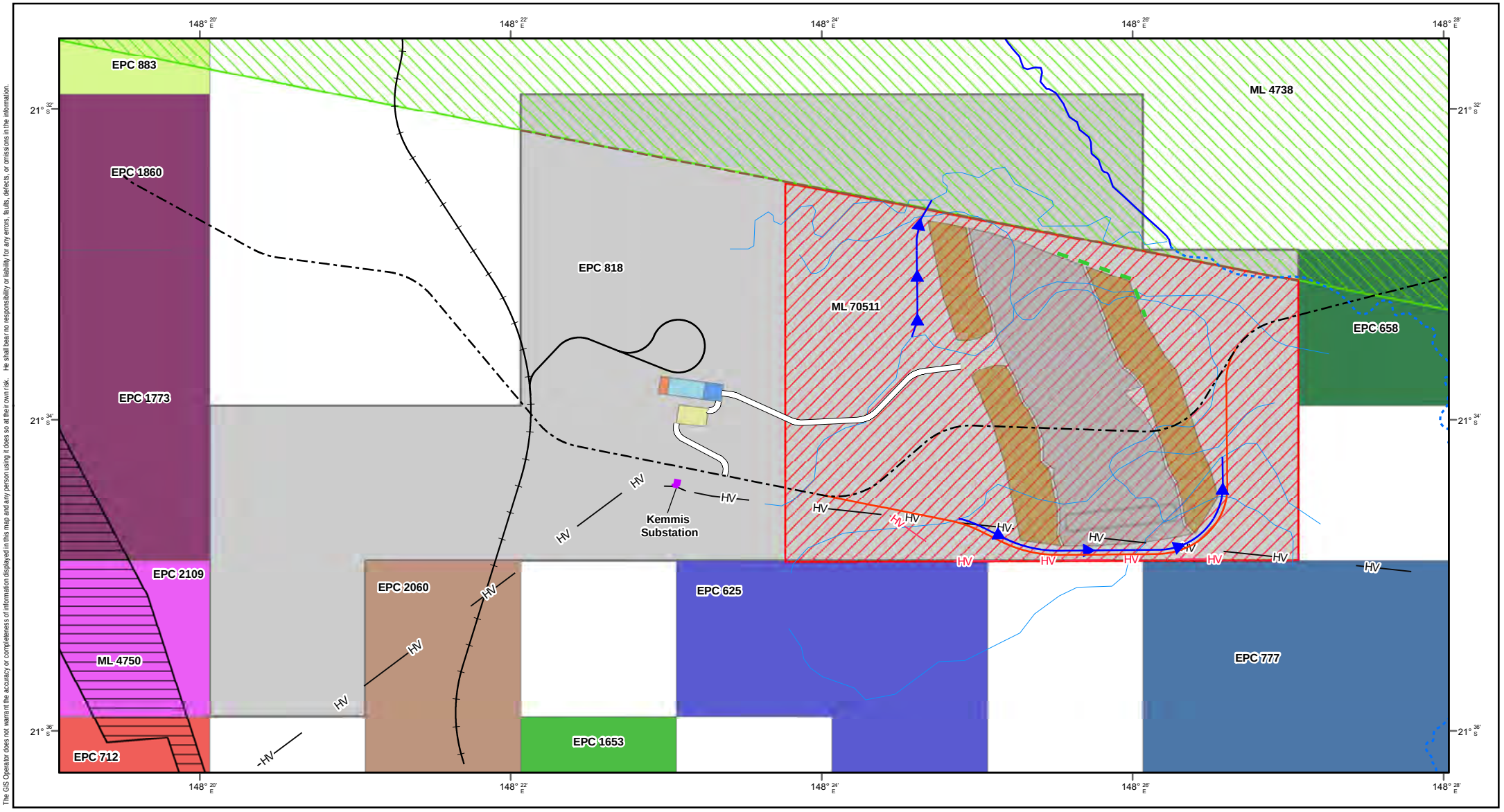
Overlapping tenure type	Tenure Holder	Expiry
PSL 82	Arrow Bowen Pipeline	30/1/2014
EPP 1103	AGL Energy Ltd (99%), CH4 Pty Ltd (0.7%), Arrow DSG (ATP 364) Pty Ltd (0.3%)	31/12/2017
EPP 749	CH4 Pty Ltd	28/2/2017
PCA 140	CH4 Pty Ltd	

2.3.5 Surrounding Mining Tenure

Surrounding mining tenure details are shown in Table 4

Table 4. Mining Tenures Near the Broughton Coal Mine Project

Mining Tenure	Name	Principal Holder	Area (ha)	Date Lodged	Date Granted	Expiry
ML 4738	Hail Creek	Queensland Coal Pty Limited	20380	30-Nov-1971	15/12/1977	31/12/2019
ML 4750	Kemmis-Walker	BHP Billiton Mitsui Coal Pty Ltd	11390	12/07/1974	13/07/1978	31/07/2020



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Hail Creek
Bee Creek
Drainage

Mining Lease
Status, Principal Holder
Application, U & D Mining Industry (Australia) Pty Ltd
Granted, BHP Billiton Mitsui Coal Pty Ltd
Granted, Queensland Coal Pty Limited

Exploration Permits Coal (Granted)
Principal Holder
U & D Mining Industry (Australia) Pty Ltd
Aquila Coal Pty Ltd
Bhp Billiton Mitsui Coal Pty Ltd
New Hope Exploration Pty Ltd
Peabody West Walker Pty Ltd
Queensland Coal Pty Limited
Rio Tinto Exploration Pty Limited
Samgris Resources Pty Ltd
Vale Australia (Cq) Pty Ltd
Xmc Australia Pty Ltd

Data sources:

- Site layout features: U&D Mining
- EPC and ML datasets, and creeks

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

U&D Mining Industry (Australia) Pty Ltd

Figure 3
Tenure Map

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

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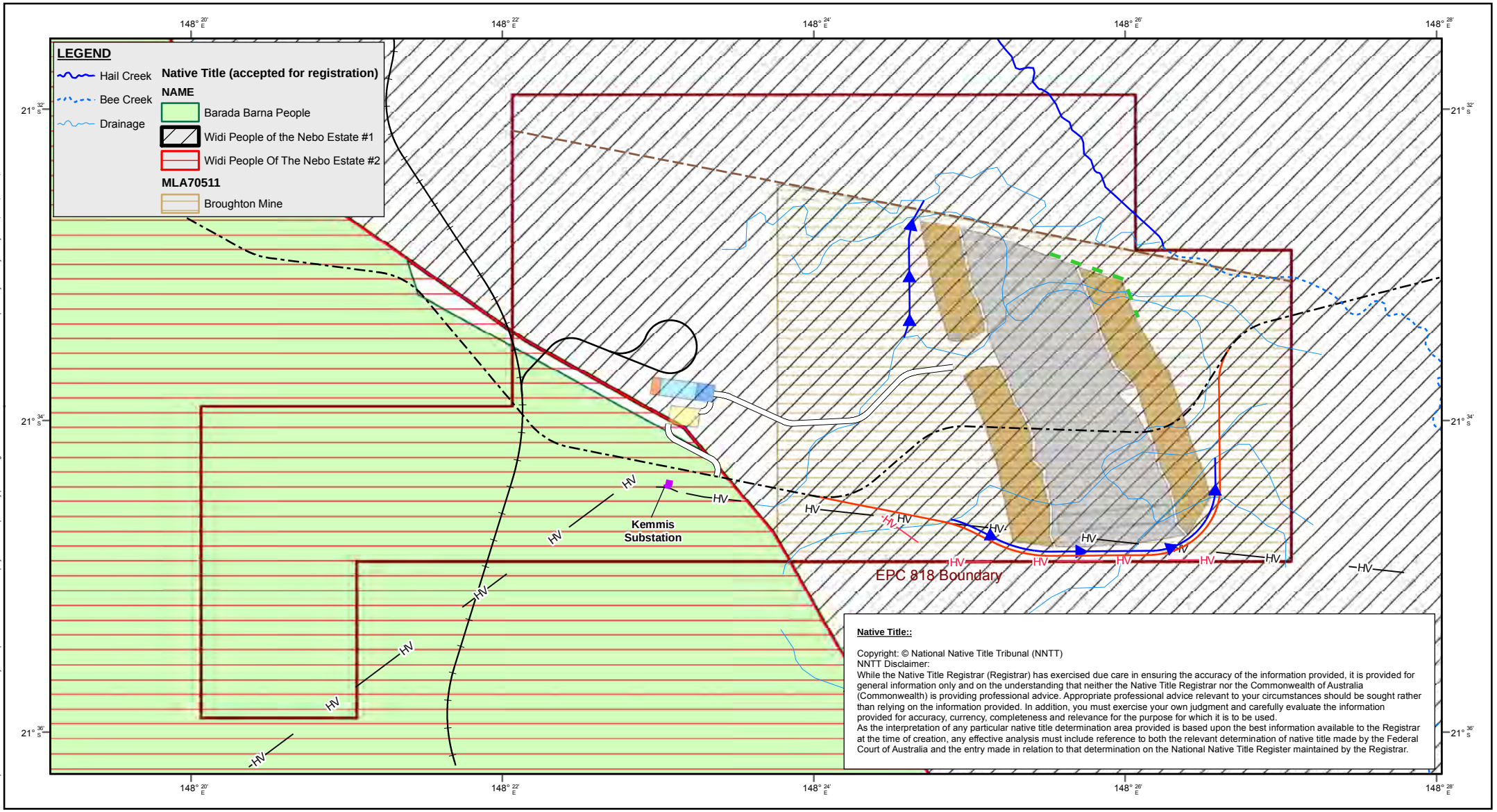

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Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary, MLA and Creeks

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Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

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Figure 4
Native Title (accepted for registration)

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

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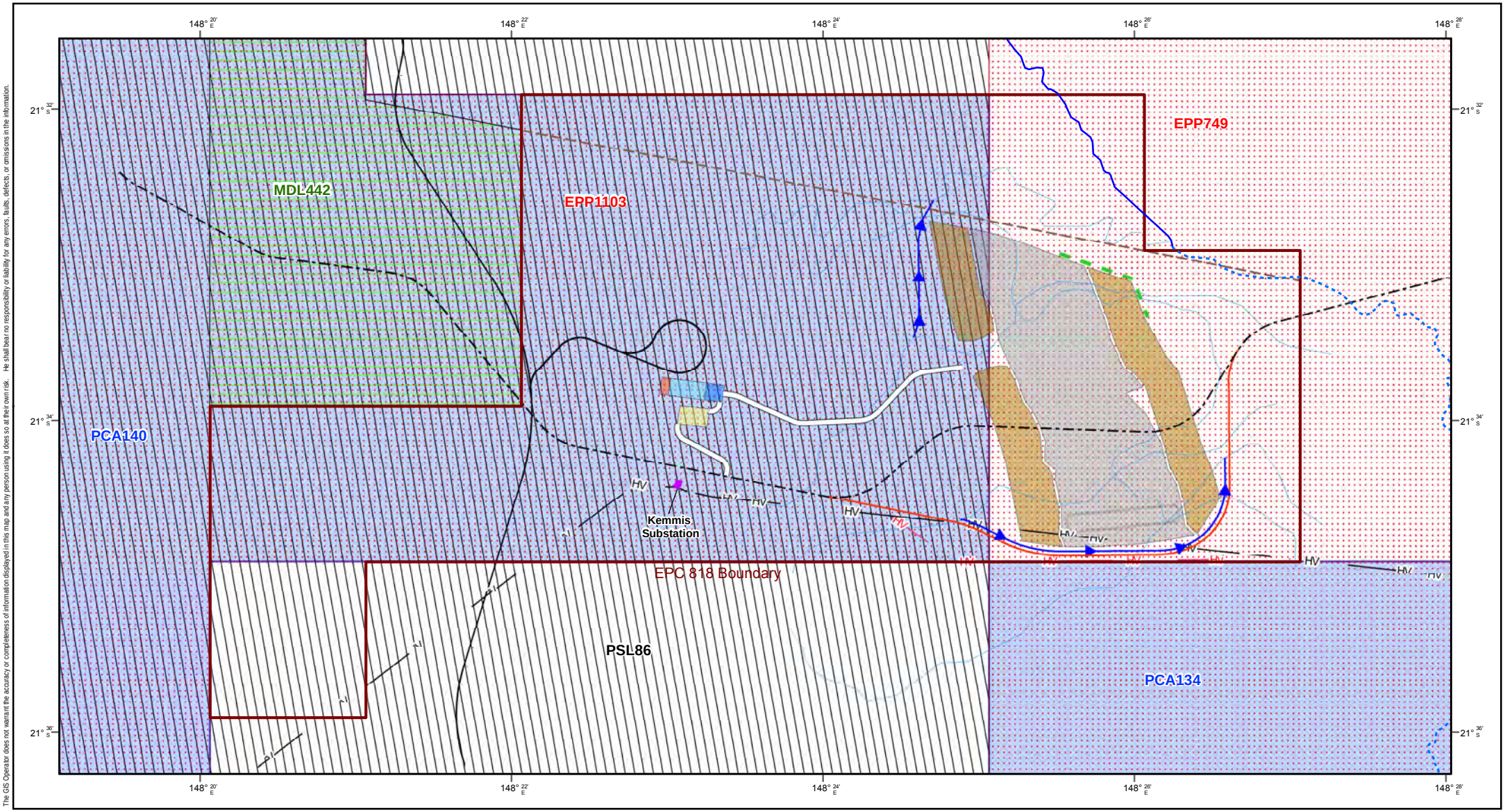

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Datum: GDA 1994
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Hail Creek
Bee Creek
Drainage
Exploration Permits for Coal

Exploration Permits for Petroleum (EPP)
CH4 Pty Ltd (Granted)

Mineral Development Licence (MDL)
Aquila Coal Pty Ltd (Granted)

Petroleum Survey Licences (PSL)
Arrow Bowen Pipeline Pty Ltd (Granted)

Potential Commercial Areas (PCA)
CH4 Pty Ltd (Granted)

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Data sources:

- Site layout features: U&D Mining
- EPC, EPP, MDL, PSL, PCA and creeks datasets

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

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Figure 5
Overlapping Tenure

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

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3. Proposed Development

3.1 Broughton Coal Mine

The proposed Broughton Coal Mine Project is located within the northern Bowen Basin 30km west of the township of Nebo. The site designated by exploration permit EPC818 is bordered by Rio Tinto's Hail Creek coal mine to the north and is shown in Figure 3.

The Project is seeking to mine up to 3Mtpa of Run-of-Mine (ROM) coal for washing in the Coal Handling and Preparation Plant (CHPP). It is anticipated that the project will export up to 2Mtpa of product coal, with studies underway to determine an optimum project output.

The Broughton Coal Mine Project area incorporates key existing infrastructure including the Suttor Developmental Road, Ergon's 132kV Kemmis Substation, and the Hail Creek rail branch.

3.2 Coal Resource

The Broughton Coal Mine Project lies on the eastern limb of the northern Bowen Basin. The key resource areas being targeted for the project include seams within the Rangal Coal Measures and the Fort Cooper Coal Measures. Specifically, the Project aims to mine both the Elphinstone and Hynds seams of the Rangal Coal Measures and investigations are currently underway to determine the viability of mining the Girrah seam of the Fort Cooper Coal Measures.

The current JORC Resource Estimate for the Project is 121Mt of coal. Table 5 shows the breakdown of this.

Table 5. Broughton Coal Mine Project JORC Resource

Seam	Measured (Mt)	Indicated (Mt)	Inferred (Mt)	Total (Mt)
Elphinstone	5.8	3.7	14	23.5
Hynds	12.0	7.4	14	33.4
Girrah	0.0	0.0	64	64.0
TOTAL	**17.8**	**11.1**	**92**	**120.9**

3.3 Proposed Operations

The Project will incorporate an open cut mine, a coal handling and preparation plant, a rail loading facility and supporting infrastructure. Preliminary feasibility works have identified a likely throughput of up to 3Mtpa of ROM coal, producing up to 2Mtpa of product coal over an estimated 15 year mine life.

Figure 6 shows a concept layout of the mining area and key infrastructure which shows the mine on the eastern side of the tenement, and the CHPP, Mine Industrial Area (MIA) and rail loading facilities on the western side of the tenement.

3.3.1 Open Cut Mining Operations

Mining operations will be undertaken by a conventional truck and shovel fleet with the potential for some cantilever mining (auguring) on the highwalls. The pit will be mined to a depth of approximately 140m, with any highwall mining to commence at pit bottom. The mine will operate 24 hours per day, 7 days per week.

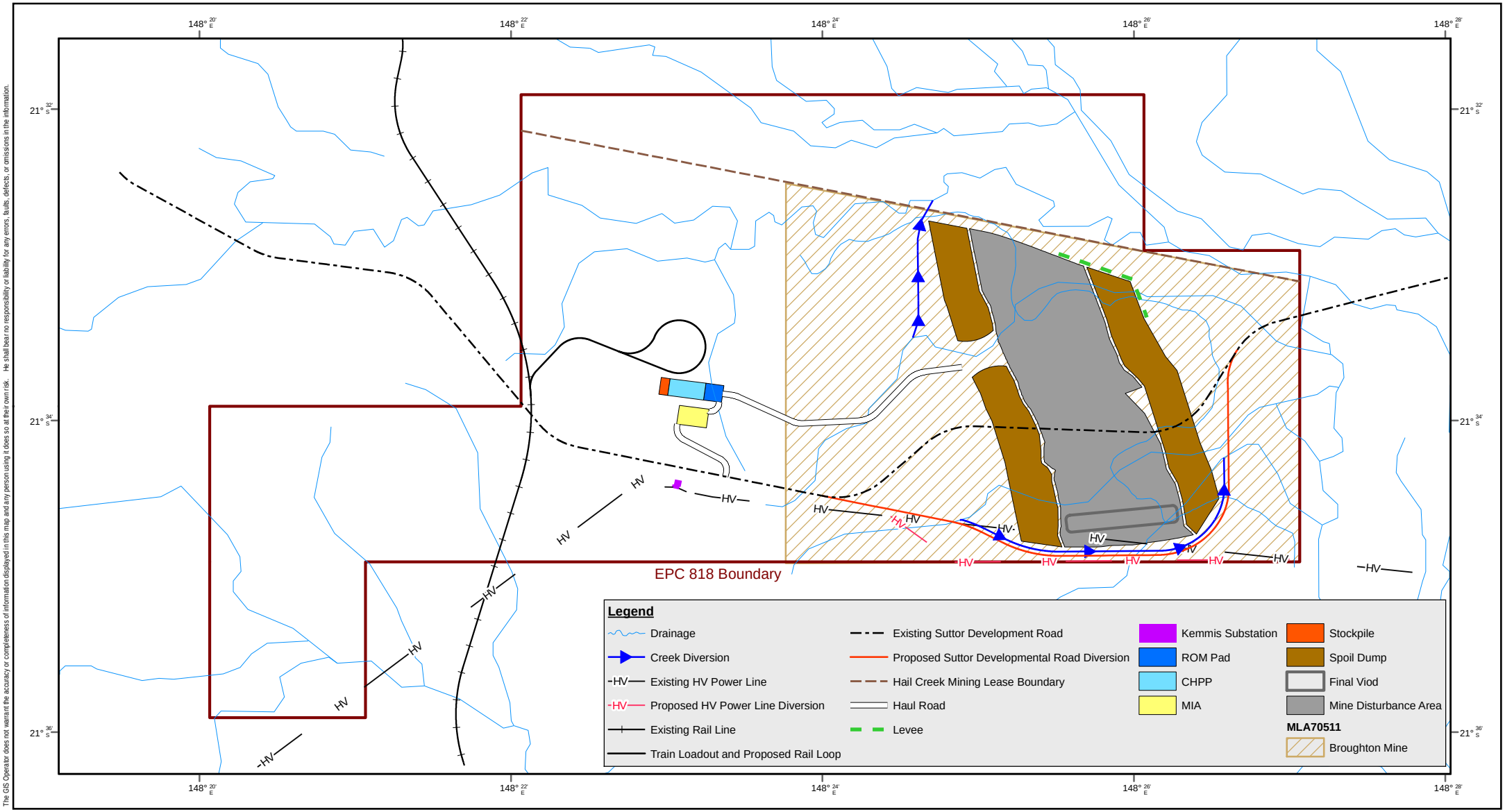
A boxcut will be developed in the northern section of the mine to access the full depth of all seams at the different bench levels. Mining will occur across each seam (rather than down dip) travelling in a southerly direction with overburden to be dumped behind the active areas where mining activities have finished. Some out of pit dumps will be required for the initial boxcut material, topsoil stockpiles and excess overburden.

Coal will be hauled in dump trucks from the mining operation to the ROM pad, which will be located adjacent to the CHPP, MIA and rail loading facilities. It is expected that this haul road will be approximately 4km in length.

3.3.2 Coal Handling and Preparation Plant (CHPP)

The Project will require a Coal Handling and Preparation Plant (CHPP) for coal processing. In general, the CHPP infrastructure will comprise a ROM pad, ROM coal sizing system, coal washery module, coal waste management system (tailings and coarse rejects), product coal stockpile, product coal reclaim to the train loading facility, power supply system, utilities, offices and workshops. The CHPP is expected to operate 24 hours a day, 7 days a week at a nominal throughput rate of 300-400 tonnes per hour.

U&D are currently evaluating the design and operation of the CHPP, including the key factors of product and waste management, power supply, water supply and water recovery / recycling. For CHPP waste management, it is envisaged that fine coal evaporation cells will provide a means of recovering water from tailings, with dried fines to be co-disposed with coarse rejects in the pit.



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Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary

U&D Mining Industry (Australia) Pty Ltd

Figure 6
Site Layout

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

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3.4 Supporting Infrastructure

3.4.1 Mine Industrial Area

The Project will include a Mine Industrial Area located adjacent to the ROM pad and CHPP. The facilities incorporated within the MIA will include offices and ablutions buildings, maintenance workshops, stores and laydown, refuelling bays, vehicle washdown area, potable water storage tank, a main site substation, and heavy vehicle and light vehicle parking areas.

3.4.2 Dams

The site will require a number of dams including a raw water dam, a mine dewatering dam and environmental dams for capturing runoff. Sizes of these dams will be determined as part of the site water balance modelling works.

3.4.3 Roads

U&D will access the Project site via a new access road, which connects to the Suttor Developmental Road approximately 36km from the intersection with the Peak Downs Highway.

The Suttor Developmental Road bisects the Project's coal resource area and therefore, this road will be relocated to access the underlying coal resource. A study will be undertaken to determine the optimum design and timing of the proposed road realignment. U&D will ensure the Department of Transport and Main Roads, the Isaac Regional Council and other relevant stakeholders are adequately consulted in relation to this matter.

Preliminary discussions with the Department of Transport and Main Roads have commenced to ascertain preferred road alignments and access road intersection locations.

3.4.4 Rail

The Project's product coal will either be loaded directly onto trains on a rail spur and loop using an onsite rail load-out facility, or loaded onto trucks to be transported off-site to a remote rail load-out facility. Further research will determine whether an on or off-site rail load-out facility will be constructed, considering all economic factors (e.g. a comparison of capital expenditure versus operating costs).

The Project will utilise the existing Goonyella rail network to transport the product coal to the selected port facility. U&D has commenced preliminary negotiations with Aurizon for access to the rail network and with port operators.

3.4.5 Port

U&D has commenced preliminary discussions with port operators. Existing Queensland coal port facilities export below peak capacity and therefore it is expected that there will be no need for any additional port infrastructure to meet the relatively low export tonnages of the Project. A number of port options are available to the project, however the Dalrymple Bay Coal Terminal is the most appropriate location to minimise haulage distances.

3.4.6 Power

U&D has commissioned power supply investigations for the Project to examine network/grid supply options, particularly in relation to new infrastructure, upgrade requirements and alternative supply arrangements.

U&D are in discussions with Ergon Energy possible access arrangements from the Kemmis 132kV Substation for the Project power supply and are also in discussions with Powerlink for the potential relocation of the existing power line that runs through the site.

3.4.7 Water Supply

The Project is expected to require approximately 500ML per annum of water supply as make-up the water for the coal handling and preparation plant, as well as for general use around the site. Preliminary discussions with SunWater have indicated that the most likely water source will be via a 35km pipeline connecting to the Eungella pipeline near the township of Glenden. Other water supply options are being considered.

Potable water is expected to be delivered by truck and stored in a potable water tank. No water treatment plant is envisaged for the project.

3.5 Mine Waste Management

CHPP waste will be disposed within the mining pit using co-disposal techniques. Other general waste on site will be contained within a waste facility which will include a covered bunded area for waste hydrocarbons and chemicals, bins for personal waste, and open laydown for non-contaminating wastes. Waste will be removed from site by an external waste management contractor.

It is expected that sewage will be stored within tanks beneath the ablutions block for regular removal by a liquid waste removal contractor. No sewage treatment plant is envisaged for the site.

3.6 Stormwater and Drainage

The Project will require the diversion of local drainage features around the mining area. The details of these diversions, and their nature (either temporary or permanent) is yet to be determined and will be assessed throughout the EIS process.

All facilities will be designed to contain stormwater in infrastructure or mine affected areas. This water will be directed to environmental dams for evaporation or use on site. Existing drainage paths that are crossed by infrastructure such as road or rail will include suitably sized drainage structures such as culverts.

3.7 Workforce and Accommodation

It is anticipated that the Broughton Coal Mine Project will require a maximum workforce of approximately 100 personnel during construction phase and 200 personnel during the operational phase.

U&D have begun investigations into the availability of accommodation options for the Project's construction and operational phases. Workforce management will be an important issue for the Project. At this stage, existing camp accommodation facilities located in Nebo area are being considered as the most appropriate options as they currently have sufficient capacity to cater for the Project's workforce. Personnel will potentially be bussed from the selected accommodation facility 30km to the Project site each shift.

U&D will consult further on this matter with the local Council, and all other relevant stakeholders as part of this investigation.

3.8 Rehabilitation

Pre-mining land use is cattle breeding and grazing and the site has been previously extensively cleared.

The proposed post-mining beneficial land use will allow for the establishment and support of native plants and animals as well as the restoration of the cattle grazing land use in order to integrate post-mining land use with the surrounding land use. Establishment of native bushland is defined as the establishment of vegetation that allows colonisation by surrounding non-weed species such that vegetation will progress towards native bushland with no designated agricultural or grazing use.

The final void will be minimised and will be located at the southern end of the pit. Material will be progressively returned to the pit as mining proceeds. It is U&D's intention to undertake progressive rehabilitation as operations allow.

The area disturbed by infrastructure operations will be revegetated using pasture grasses with trees and shrubs used to create diversity. Post-mining grazing may be the main post mine land use. Alternative beneficial land uses will be investigated and considered as mining proceeds and the company will seek to optimise the post-mining land use within the natural limitations of the area.

4. Legislation and Approvals

4.1 Commonwealth Approvals

U&D lodged a Referral Application for the Project to the Department of Environment (DoE), under the Commonwealth's *Environmental Protection and Biodiversity Conservation (EPBC) Act 1999*. On 21 March 2014, the Project was determined to be a 'controlled action' for the following controlling provisions:

- Listed threatened species and communities (sections 18 & 18A)
- Listed migratory species (sections 20 & 20A)
- A water resource, in relation to coal seam gas development and large coal mining development (Section 24D and 24E).

The Department also decided that the Project would need to be assessed under the assessment Bilateral Agreement with Queensland (Appendix 2).

4.2 State Approvals

U&D lodged an application to the Department of Environment and Heritage Protection for an environmental authority on 13 September 2013. The administering authority determined on 5 November 2013 that an Environmental Impact Statement under Chapter 3 of the *Environmental Protection Act 1994* was required (Appendix 1).

U&D proposes to prepare an EIS to satisfy the requirements of both jurisdictions under the Bilateral Agreement between the Queensland and Federal Governments regarding environmental assessment of controlled actions.

As part of the approvals process there will be other secondary approvals required under other legislation.

5. Existing Environment and Potential Impacts

5.1 Introduction

5.2 Regional Climate and Natural Hazards

5.2.1 Climate

The Project Area is located in Northern Queensland, approximately 100 km inland from Mackay. This area has a subtropical climate characterised by hot and wet summers and cooler dry winters. Maximum average daytime temperatures range from 23-30°C with average minimum temperatures ranging from 11-24°C. The highest average rainfall occurs from December through to March while August and September record the lowest average rainfall. Summer rainfall is typically associated with tropical cyclones, with the cyclone season extending from December to April (BoM) 2012).

The nearest public rainfall data is available from the Oxford Downs weather station located approximately 35 km south-east of the Study Area. Oxford Downs records a mean annual rainfall of 651.8 mm (1895-2012), receiving 62% of its total annual rainfall during the wet season from December to March (BoM 2012a) (Figure 7).

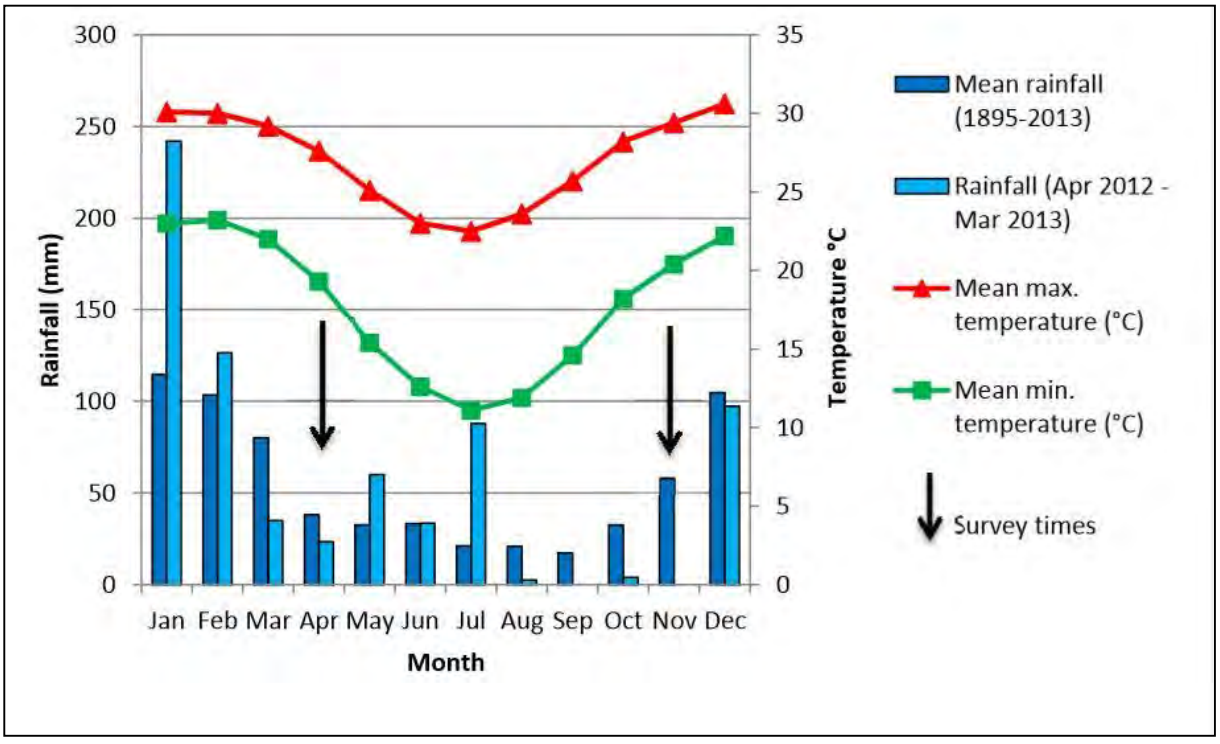


Figure 7. Average long-term (1895-2012), average maximum and minimum temperatures (1950-2012) for Mackay Aero and year to date monthly rainfall for the Oxford Downs weather station (BoM 2012).

Rainfall and temperature data collected by the Bureau of Meteorology (BoM) is available from the township of Nebo (Station No. 033054) and evaporation data is available from the Collinsville Post Office (Station 033013). The Nebo BoM station is located about 30 km southwest of the Project and the Collinsville station is located about 130 km north-northwest of the Project. Rainfall and temperature records are available for the period from 1870 to present, and evaporation data is available for period between 1967 to present. The rainfall data available from the BoM stations is summarised in Figure 8.

The climate of the surrounding region is subtropical, with warm to hot, wet summers and mild, dry winters; mean summer temperature ranges from 21°C to 34°C, and the mean winter temperature ranges from 9°C to 25°C. The average annual rainfall recorded at the Nebo weather station is 755.4 mm/year, of which the majority falls in the warmer, summer months (November to February), with January being the wettest (140.9 mm). The driest months have been recorded as August and September.

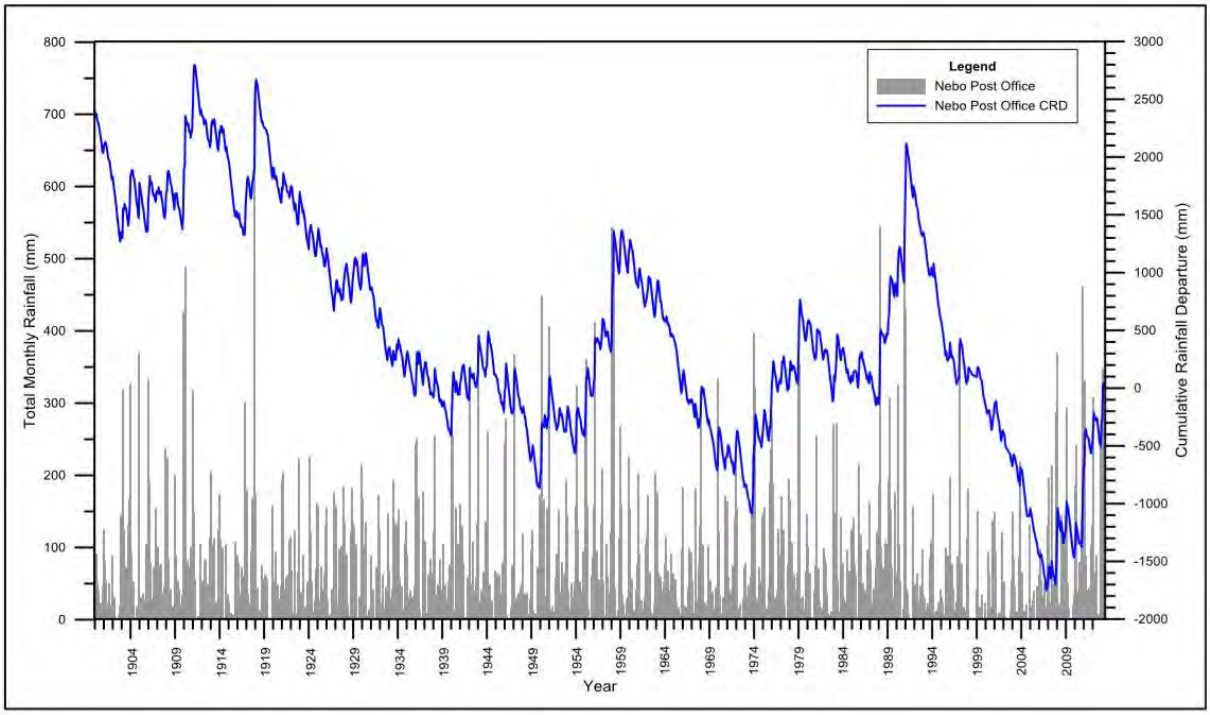


Figure 8. Cumulative rainfall departure graph – Nebo (Station 033054)

Mean daily evaporation in the summer season reaches 6.9 mm in November / December and falls as low as 2.9 mm in June. Evaporation exceeds rainfall throughout the year, with the highest moisture deficit occurring during summer.

In order to place recent rainfall years into an historical context, the Cumulative Rainfall Departure (CRD) was calculated. The CRD is calculated by summation of the monthly departure of rainfall from the long-term average monthly rainfall (Weber and Stewart, 2004).

5.3 Land

5.3.1 Geology

5.3.1.1 Regional

The Broughton Coal Mine Project is located in the northern Bowen Basin, on the eastern margin of the Nebo Synclinorium, characterised by a series of broad, open, doubly-plunging fold and dome structures and faults (Ward *et al*, 1995). In the Broughton area, the Nebo Synclinorium contains sediments of Permian and Triassic age, which can be affected by Cretaceous intrusions. Permian sediments were subsequently folded into a series of anticlines and synclines. One of these structures, the Hail Creek Syncline (also known as the Bee Creek Syncline) is a basin like structure with fold closures to the north and south (Palaris 2013).

The Project is situated in the northern part of the Bowen Basin within the western limb of the south-easterly plunging Hail Creek Syncline that has a length of about 30 km and a width of about 7 km. The syncline asymmetrically dips up to 20° on the eastern limb and 10° on the western limb. To the west, the Bee Creek Anticline links the Hail Creek Syncline to the Carborough Syncline. The Hail Creek Syncline consists of Permian to Triassic age sediments discontinuously overlain by Quaternary alluvial clays, sands and gravels associated with Bee Creek.

The Moranbah Coal Measures form the basement geology, which include an interbedded sequence of lithic sandstone, siltstone, mudstone and conglomerate. At least four well defined laterally continuous coal packages exist and the coal measures may attain thicknesses of 700 m.

The Fort Cooper Coal Measures unconformably overlie the Moranbah Coal Measures and consist of up to seven seams comprised of thin coals banded with claystone, mudstone and siltstone that are interbedded with grey tuffaceous sandstone, lithic sandstone, mudstone and cherty mudstone. These coals are regarded as having no economic potential.

The Fort Cooper Coal Measures are in turn overlain by the Rangal Coal Measures, which comprise fractured and well cleated coal seams. The transition between the Fort Cooper Coal Measures and the Rangal Coal Measures is marked by the Yarrabee Tuff, a basin-wide marker of tuffaceous claystone. The two coal seams of economic significance in the proposed mine area are the Elphinstone and Hynds seams.

The overburden above the Rangal Coal Measures is dominated by the Rewan Formation, which unconformably overlies the Permian formations. These sediments are characterised by lithic siltstone, claystone, and sandstone deposited at the start of the Triassic period. The Triassic sediments form the youngest rocks in the syncline, sub-cropping in the axis of the syncline.

Finally, Quaternary aged alluvial deposits are located extensively along Bee Creek and its associated tributaries. The alluvium stratigraphy is complex and consists of sand and gravel deposits intercalated

with dominant finer grained clays and silts. The heterogeneity of the alluvium reflects the stream and floodplain depositional environments.

5.3.1.2 Site Geology

Figure 9 shows the surface geology of the project area. The Project area is typically covered with thin layers of Cainozoic sediments and Quaternary alluvium, which are unnamed and consist of thin soil and alluvium associated with Bee Creek and its tributaries.

The Triassic and Permian sediments occur below the Quaternary. In the eastern part of the tenement, the Sagittarius Sandstone, which is the basal formation of the Triassic Rewan Group, underlies the Cainozoic cover. This formation is usually interbedded greenish grey sandstone and siltstone. Below the Sagittarius Sandstone are the target coal seams: the Rangal Coal Measures. The colour and lack of carbonaceous material enables ease of distinction between the Sagittarius Sandstone and the underlying Rangal Coal Measures. The Rangal Coal Measures subcrop just west of the central area of the EPC and dip to the east.

There are two coal seams named within the Rangal Coal Measures in this part of the Bowen Basin. The upper seam is the Elphinstone Coal Seam and the lower seam is the Hynds Coal Seam, both of which are the target coal seams for economic development in EPC818. Within the tenement the coal seams split into a number of thin seams. The interburden and overburden consists of clay-cemented labile sandstones and siltstones with minor carbonaceous mudstone. The Fort Cooper Coal Measures occur beneath the Quaternary on the western side of the EPC. These are characterised by tuffaceous sandstone and siltstones, and several thick coaly horizons that contain high-ash coal, carbonaceous mudstone, tuffaceous mudstone and siltstone.

The Moranbah Coal Measures are known to occur at depth (greater than 250m) in the central-western parts of the tenement (Palaris 2013).

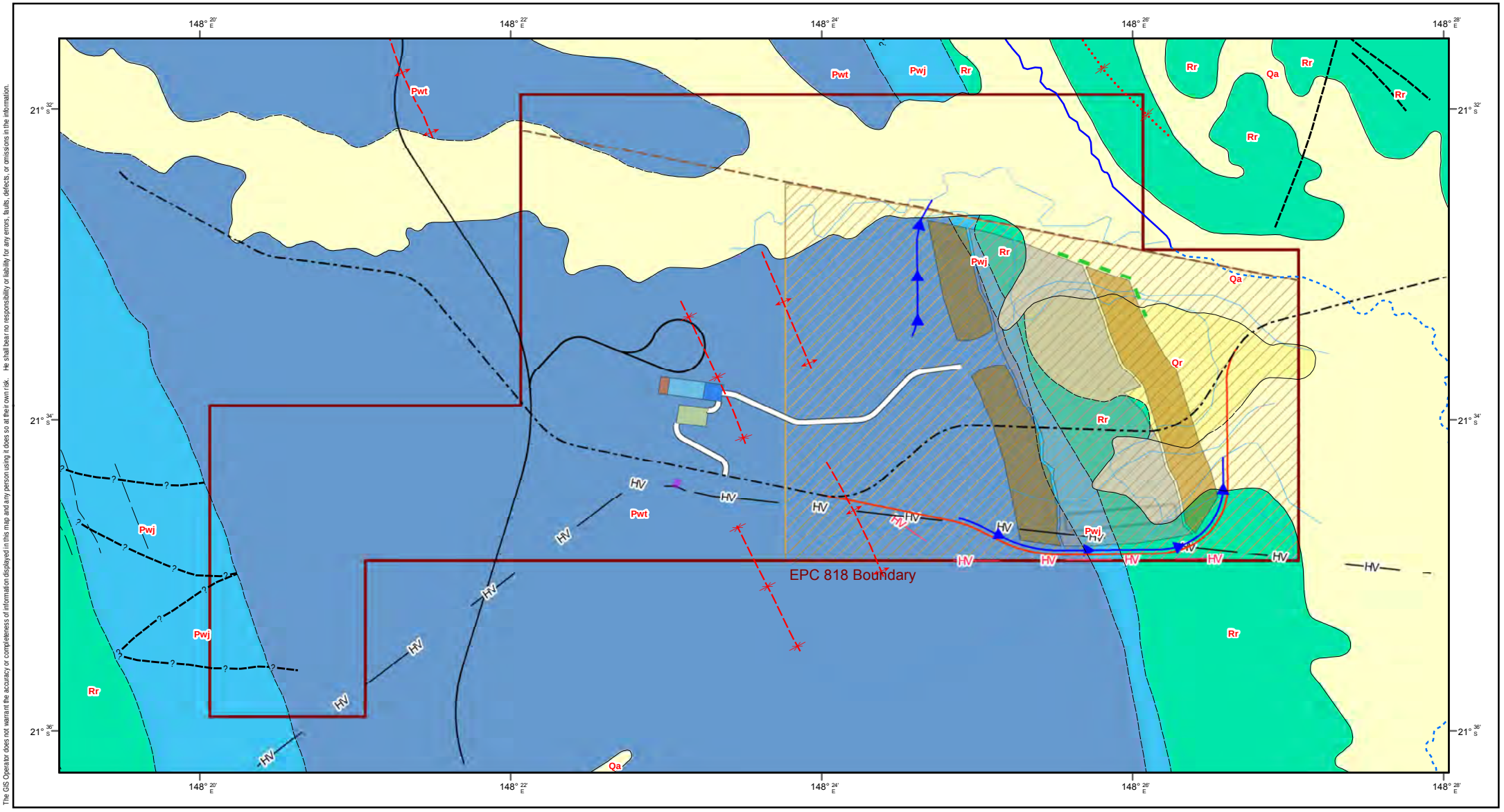
5.3.2 Topography and Landscape

The Project is located in the north of the Bowen Basin and on the northern slopes of the Isaac- Connors River catchment in Central Queensland. The regional catchment has an area of 22,368 km2 and is a sub-basin of the Fitzroy River Basin.

The majority of the Project Area is of low relief, comprising floodplains and low undulating hills with multiple stream channels forming a non-directional or convergent integrated tributary pattern. One main watercourse, Bee Creek, flows easterly across the north of the Project area. The locations of mapped waterways and wetlands across the Study Area are shown in Figure 10.

5.3.3 Soils

There are three primary soil groups on the site (Figure 11). The predominant soil type across the project site is Girrah, a cracking clay soils on unweathered Permian shale and lithic sandstone typified by lowlands with downs and brigalow. The south-eastern portion of the site consists of Hilalong soil type, texture contrast soils on little-weathered Permian Shale and sandstone typified by lowlands



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Scale: 1:62,500 (when printed at A4)

Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary, MLA and surface geology

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

U&D Mining Industry (Australia) Pty Ltd

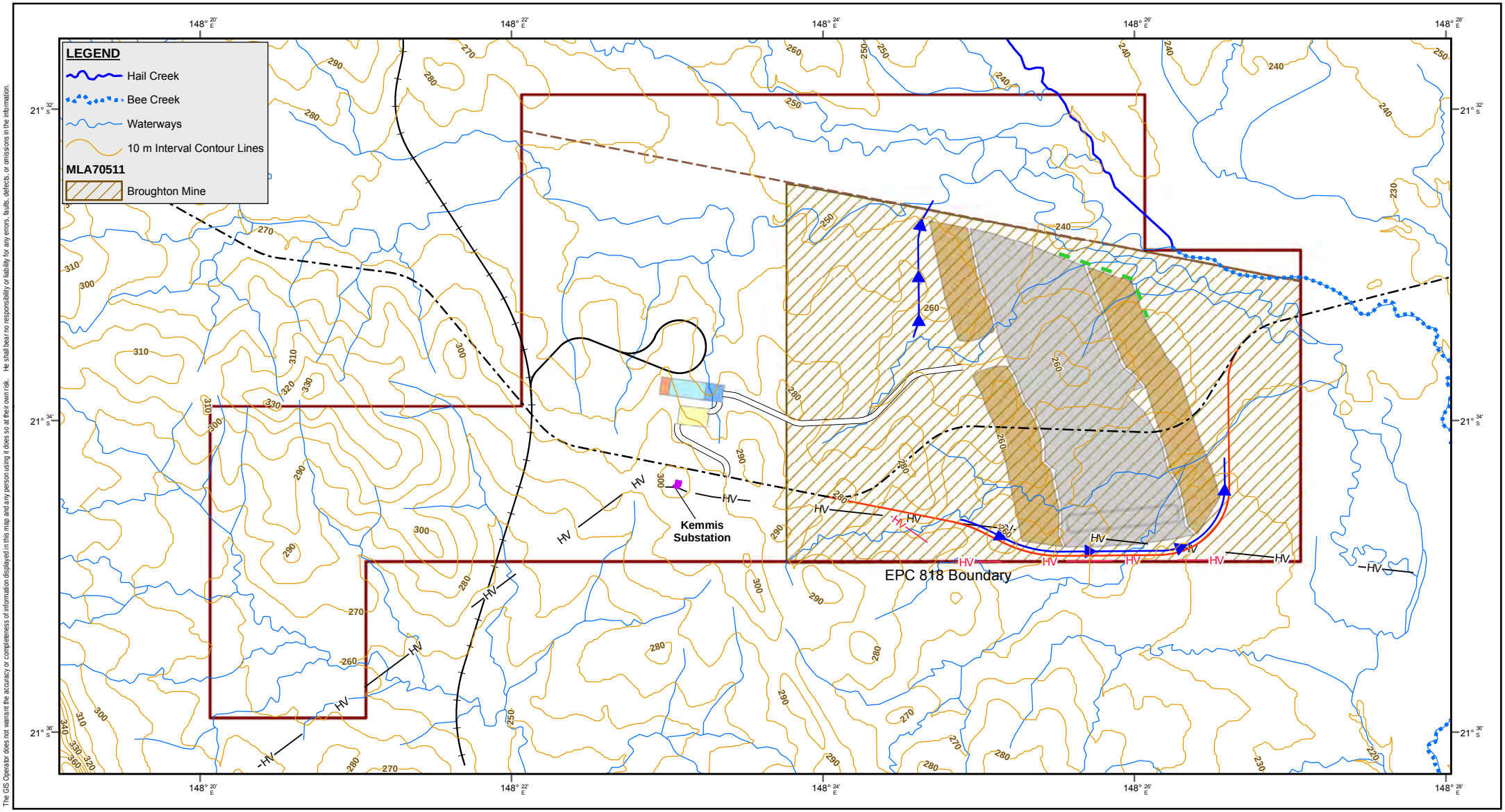
Figure 9
Surface Geology

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

A4 size



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Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary, MLA, Contour lines, creeks and watercourses

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

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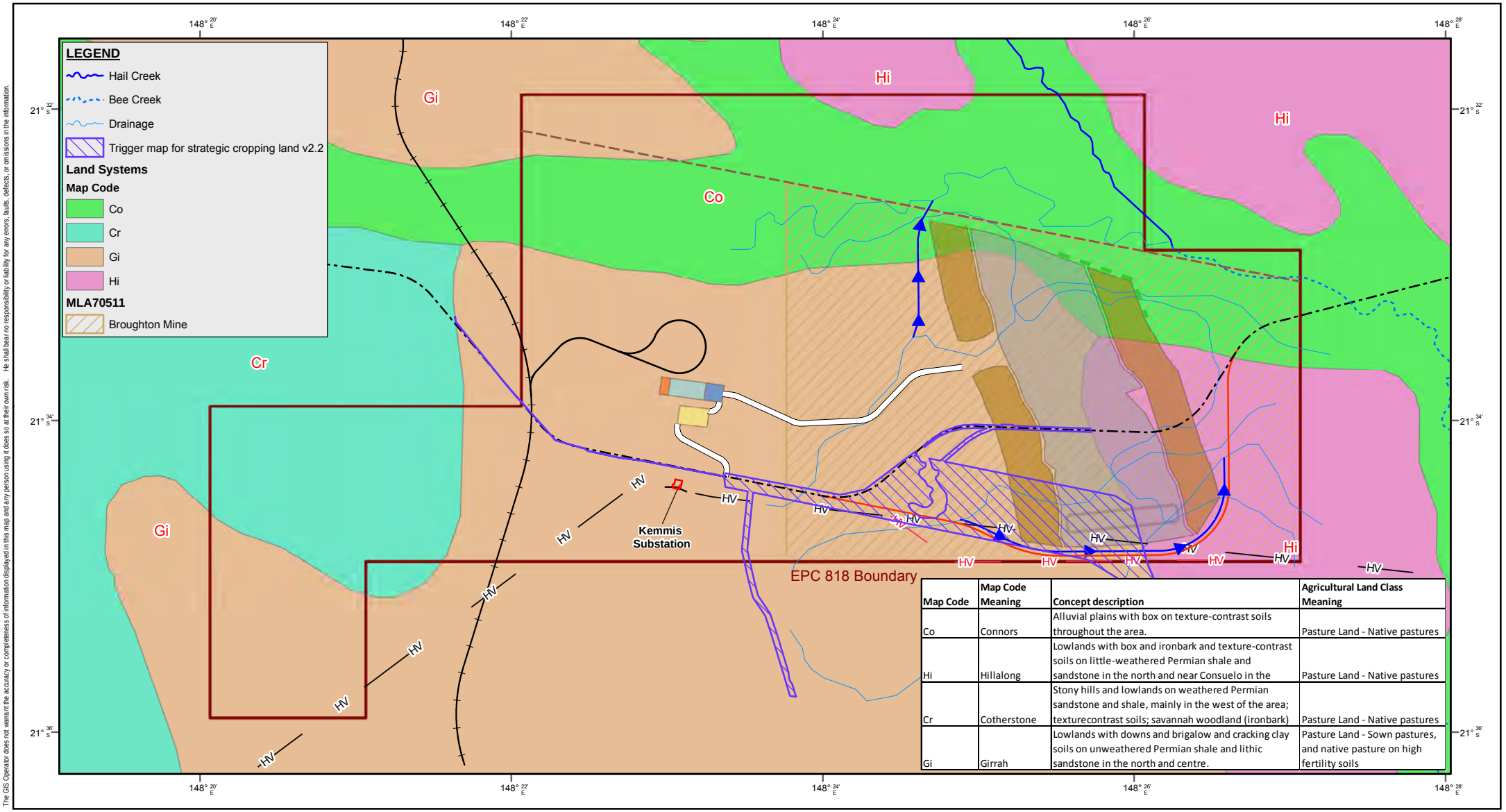
Figure 10
Topography and Waterways

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

A4 size



Map Code	Map Code Meaning	Concept description	Agricultural Land Class Meaning
Co	Connors	Alluvial plains with box on texture-contrast soils throughout the area.	Pasture Land - Native pastures
Hi	Hillalong	Lowlands with box and ironbark and texture-contrast soils on little-weathered Permian shale and sandstone in the north and near Consuelo in the	Pasture Land - Native pastures
Cr	Cotherstone	Stony hills and lowlands on weathered Permian sandstone and shale, mainly in the west of the area; texturecontrast soils; savannah woodland (ironbark)	Pasture Land - Native pastures
Gi	Girrah	Lowlands with downs and brigalow and cracking clay soils on unweathered Permian shale and lithic sandstone in the north and centre.	Pasture Land - Sown pastures, and native pasture on high fertility soils

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Scale: 1:62,500 (when printed at A4)

Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary and MLA

- Land Systems and Trigger map for strategic cropping land v2.2: © the State of Queensland (Department on Natural Resources and Mine) 2012

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

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Figure 11
Soils and Strategic Cropping Land Trigger Map

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

A4 size

with box and ironbark. The northern portion of the site, along Bee Creek, contains Connors soil group; texture-contrast soils forming alluvial plans with box. All three soil types are suitable for native pasture, with Girrah also being suited to sown pasture.

There is a small area of the site that has been mapped as Strategic Cropping Land (SCL) (Figure 11). This is located along the Suttor Developmental Road and is most likely associated with the stock route in the same location (as suggested by the mapping boundaries). Further work will be required to determine whether the trigger map area actually is SCL.

5.3.4 Existing Land Use

The Project is located on "Fort Cooper" station and land surrounding the project is primarily used for cattle grazing of which a significant area has been previously been cleared. The Project is bounded to the east, south and west by rural properties that are also primarily used for cattle grazing.

A stock route exists across the southern section of the project area (Figure 6). Stock routes are corridors on roads, reserves, pastoral leases and unallocated state land along which stock are driven on foot. The Queensland stock route network is primarily used by the pastoral industry as an alternative to transporting stock by rail or road, and for pasture for emergency agistment and long-term grazing. Stock routes have no separate title or tenure from the underlying road reserve, and the same roads are used for walking and agisting stock and vehicular transport. Reserves for travelling stock are areas designated for travelling stock purposes under the *Land Act 1994*.

The northern boundary is located adjacent to the Hail Creek Mine (ML 4738), with the mine located some 5 km to the north (Figure 2). The Hail Creek Coal Mine includes an open-cut operation that is currently operating on the western limb of the Hail Creek Syncline, targeting the Elphinstone and Hynds coal seams within the Permian aged Rangal Coal Measures. The Hail Creek Mine commenced operations in 2003 and currently produces 8 Mtpa.

5.4 Water Resources

5.4.1 Surface Water

The Project site is located in close proximity to several watercourses including Hail Creek, Bee Creek, Absent Creek and Middle Creek. Smaller, unnamed tributaries of these creeks are located within the Project site Figure 10.

Creek flow within the catchment is ephemeral (i.e. flows intermittently) and seasonal, and strongly correlates to periods of summer dominant heavy rainfall. Bee Creek (Figure 10) traverses the northern portion of the Project area draining initially eastwards and then to the southeast after it is joined by Hail Creek, southeast of Hail Creek Mine. Bee Creek continues to flow towards the southeast where it drains into the Connors River, which in turn flows into the Isaac River, and then finally into the Fitzroy River, about 270 km downstream of the project area.

It is understood that the Hail Creek Coal Mine records stream height data from one gauge station located on Bee Creek near the crossing of Suttor Development Road. The data from the stream gauge is not publically available. The Queensland Government Department of Natural Resources and Mines (DNRM) does not currently operate any stream gauges proximal to the Project. Stream gauges will be installed as part of the Project baseline assessments.

Flooding in the vicinity of the Project site is dominated by flows in Bee Creek and Hail Creek which are significantly larger than those in the local catchment (WRM 2014).

5.4.2 Groundwater

The Permian coal measures have been geologically mapped as the predominant geological unit within the region. As is the case throughout the Bowen Basin, the individual coal seams are typically regarded as the principal groundwater systems within the Permian strata. Groundwater storage and movement occurs within the coal seam cleats and fissures and within open fractures that intersect the seams. Other sediments in the coal overburden and inter-burden sequence are relatively impermeable and form aquitards. The Permian strata may therefore be categorised into the following hydrogeological units:

- hydraulically "tight" and hence very low yielding to essentially dry sandstone, siltstone and shale that comprise the majority of the Permian inter-burden/overburden
- low to moderately permeable coal seams which are the primary water bearing strata within the Permian strata.

The Permian strata is widespread and in general are assessed to comprise semi-confined to confined groundwater systems. However, the Permian sedimentary units are not considered aquifers, as yield from boreholes is generally too low to provide an exploitable groundwater resource.

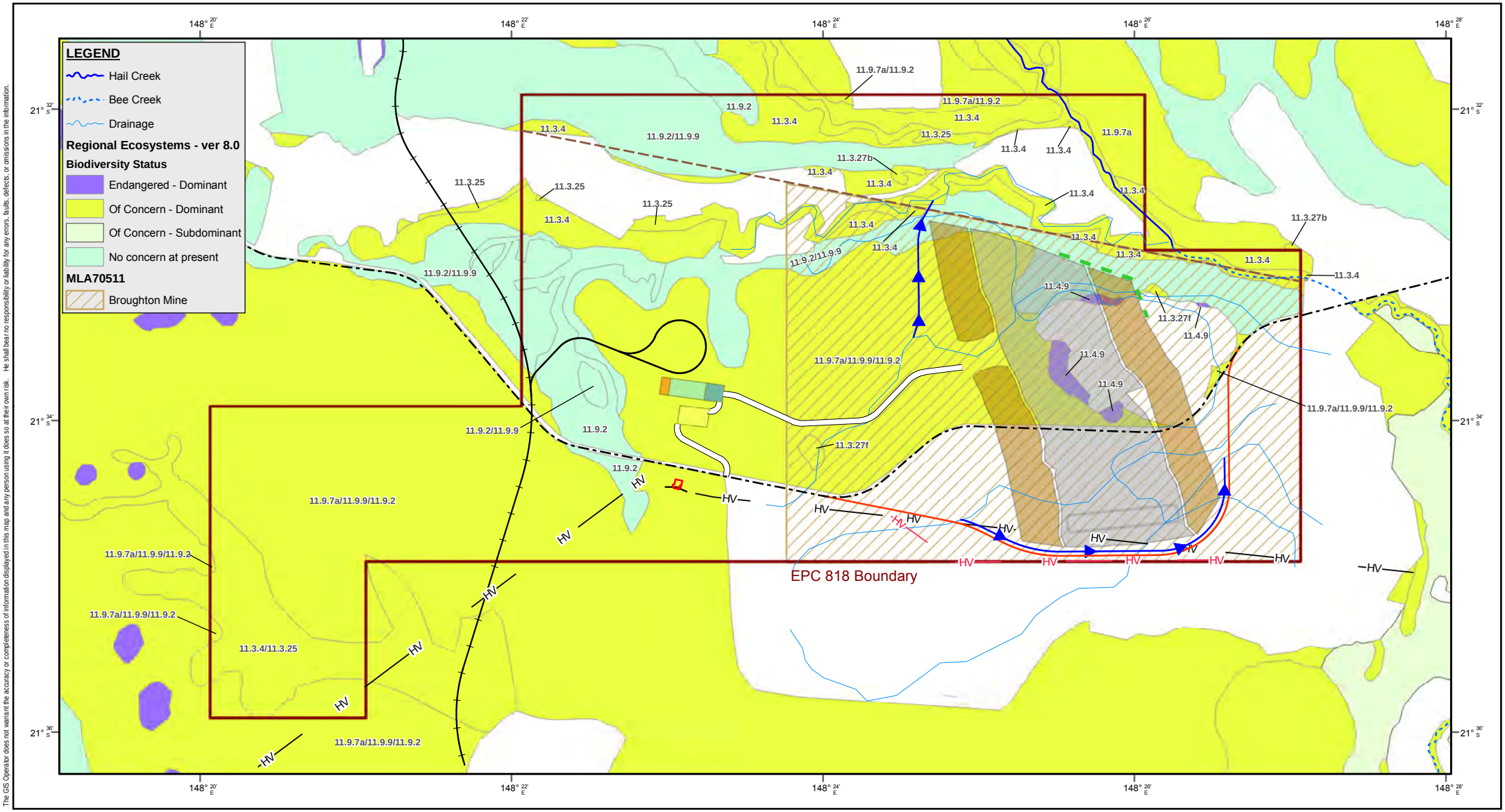
Composite groundwater level data from exploration drill holes indicates general mounding in the centre of the Project area of about 250 mAHD. Standing water levels (SWL) at the southern and northern extent of the site are approximately 230 mAHD suggesting groundwater flow from the centre of the Project area to the north and to the south.

5.5 Ecology

5.5.1 Terrestrial Flora

The majority of the Project area is heavily altered with impacts present from historical vegetation clearing, weeds, grazing and altered fire regimes. This has resulted in a lower ecosystem diversity that is more typical of the current agricultural land use (ENV Australia 2013).

Ten remnant vegetation communities have been identified as occurring in the study area (Figure 12). Two of these are Threatened Ecological Communities (TECs) or Endangered Regional Ecosystems (EREs) respectively under the EPBC Act and Queensland *Vegetation Management Act 1999*.



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Scale: 1:62,500 (when printed at A4)

Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary, MLA and regional ecosystems v8.0

Regional ecosystem (RE) linework has been compiled at a scale of 1:100,000, except in designated areas where a compilation scale of 1:50,000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is +/- 100 metres.

DNRM Disclaimer

Based on or contains data provided by the State of Queensland (Department on Natural Resources and Mine) 2014, which gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data.

Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

U&D Mining Industry (Australia) Pty Ltd

Figure 12
Regional Ecosystems (REs)

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

A4 size

RE 11.4.9 (*Acacia harpophylla* shrubby open forest to woodland with *Terminalia oblongata* on Cainozoic clay plains) has been recorded within the MLA. The communities on site are generally in poor condition fragmented and small in size (<5.5ha), with clear disturbance from grazing, weeds and historical clearing (ENV Australia 2013).

Although not mapped, RE 11.8.13 (semi-evergreen vine thicket and microphyll vine forest on Cainozoic igneous rocks) has been recorded on the project site. The RE 11.8.13 communities are restricted to exposed rock piles located at the crest of ridges running in a north-south direction across the centre of the site. The condition of these communities varies from reasonable to disturbed by weeds and grazing.

No vegetation communities representing the TEC community 'Natural grasslands of the Queensland Central Highlands and the northern Fitzroy Basin' have been recorded in the study area.

Two threatened flora species (*Eucalyptus raveretiana* and *Cupaniopsis shirleyana*) listed as vulnerable under the EPBC Act have been recorded in surveys around the site (ENV Australia 2013) (Figure 13). Further detailed surveys once mine footprint to determine whether either species will be impacted.

Five fauna habitat types have been identified in the study area:

- Open Woodland
- Drainage line
- Brigalow woodland
- Flood plain
- Dam/wetland.

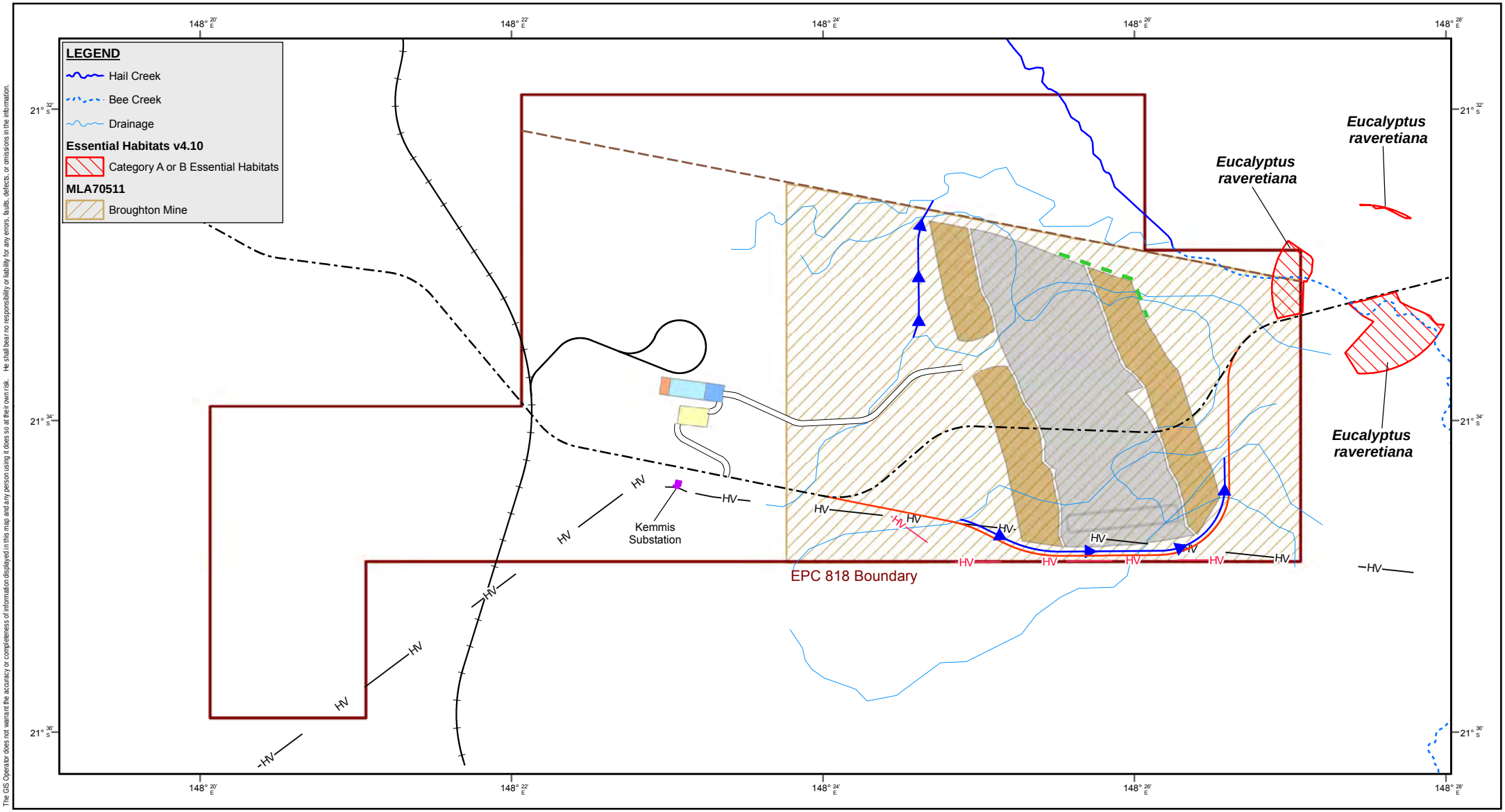
Offsets for species and species habitat that is unavoidably impacted by the Project will occur according to the Commonwealth and State offset policies.

5.5.2 Terrestrial Fauna

Database searches indicate that a total of 380 vertebrate fauna species (15 amphibians, 42 reptiles, 278 birds and 45 mammal species) have been previously recorded within the vicinity of the Project area.

Twenty State significant fauna have been previously recorded near, or have the potential to occur on the project site. This includes five reptiles, 12 birds and three mammal species. Eleven of these species are also listed under the EPBC Act. The EPBC Protected Matters Tool also listed 12 migratory species as potentially occurring on the project site.

The Project is expected to have a negligible impact on the conservation significant species sighted on or near the Project Area. These species are mostly associated with the artificial water bodies or riparian vegetation adjoining Bee Creek, both of which are predominately outside the Project Area.



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Scale: 1:62,500 (when printed at A4)

Coordinate System: GCS GDA 1994
Datum: GDA 1994
Units: Degree, Minutes, Seconds

Data sources:
- Site layout features: U&D Mining
- EPC boundary, ML and Essential Habitats v4.10

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Note: please refer to the figure labelled "Site Layout" for full description of the site's detailed infrastructure.

U&D Mining Industry (Australia) Pty Ltd

Figure 13
Essential Habitats

Broughton Mine Initial Advice Statement

Hail Creek, Isaac Regional Council, Queensland

GIS Handling: Bashar Nseir

A4 size

Impacts on all fauna species will be minimised by only clearing vegetated areas that are necessary for the Project construction and operation. As much as is possible, clearing of vegetation will occur at times (season) and time of day to minimise impact of breeding or migration. Clearing will also systematically clear towards vegetation that is not to be impacted to allow movement of fauna towards these areas.

5.5.3 Aquatic Ecology

Creeks on the Project site are typically ephemeral. Creeks are generally dominated by sandy substrate. Morphology of creeks varies from well-defined steep sided channels with banks up to 1m high, to poorly defined low profile meandering channels that merge into floodplains.

There are several small wetland areas, which are perennial and, although water levels are often low, provide some aquatic habitat during the dry season. As cattle have unrestricted access to the wetlands in this area it is likely that they have been impacted by these stock and grazing activities.

Aquatic habitat quality on the project site ranges from poor to moderate. The property is impacted by a range of terrestrial weed species and impacts associated with moderate to high levels of cattle grazing are evident.

5.6 Air Quality

An initial assessment of the baseline climate and air quality within the Project area was undertaken during 2013. Due to the proximity to Hail Creek, further field studies are proposed to enable to differentiate between dust generated by the existing mine and background agricultural dust.

The assessment of the air quality and suitable mitigation methods will be outlined in the Project's EIS. Dust generated by the Project may be managed by the use of water carts for road watering, sprays on crushers and conveyor transfer points, conducting progressive rehabilitation, limiting disturbance to the area required for safe operations, and if appropriate, changing work practices during adverse meteorological conditions.

5.7 Greenhouse Gas

U&D acknowledges the increased levels of CO_2 from the combustion of coal and believes an industry wide response to the issue is the best approach for the Australian coal industry and economy (e.g. development of clean coal technologies, carbon sequestration, etc.).

As a controlling corporation, U&D is required to report annual greenhouse gas emissions under the *National Greenhouse and Energy Reporting Act 2007* (NGER). Greenhouse gas emissions from the Broughton Mine will be incorporated into U&D's annual reporting obligations under this legislation.

U&D will continue to explore possible offset and abatement options for greenhouse gas emissions at the Project level.

5.8 Noise and Vibration

Mining projects can have potential impacts on the amenity of a surrounding area. The two nearest sensitive receptors are the homestead to the east of the site and Hail Creek Mine to the north-west. It is not anticipated that the proposed Broughton Mine will have any adverse impacts on Hail Creek Mine.

A baseline noise monitoring survey of the Project area will be undertaken and comprise long-term noise monitoring (unattended logging) and operator-attended monitoring. The monitoring will be carried out in accordance with the relevant Queensland Department of Environment and Heritage Protection (EHP) guidelines and Australian Standards.

Noise levels in close proximity of Hail Creek Mine, being the nearest operational mine to the Project, will be recorded for future reference of cumulative impact assessment.

Noise impacts from the open cut coal mining operations would be localised to machinery operation (stationary and mobile) and blasting. The level of noise will vary depending on the level of machinery operation, traffic in the area and climatic conditions (e.g. wind direction, etc.). The principal sources of noise from the Project will be surface infrastructure (e.g. CHPP) and mobile mining equipment.

The potential noise impacts from the Project will be assessed as part of the Project's EIS.

5.9 Cultural Heritage

5.9.1 Indigenous Cultural Heritage

The traditional landowners of the region are the Barada Barna People and the Wiri People. Both groups have registered Native Title claims, which each cover part of the Project tenements (ie: ML, MLA and EPCs) (Figure 4).

Cultural Heritage Management Plans (CHMPs) will be developed for the Project and investigation of Aboriginal cultural heritage values within the Project area will be undertaken in consultation with them.

5.9.2 Non-indigenous Cultural Heritage

The area was explored by Leichhardt in 1845, who followed the Isaac River in the west of the shire, but it was William Landsborough in 1856 who named Nebo Creek and a prominent nearby mountain, Fort Cooper. In the early 1860s pastoralists moved inland from Rockhampton, and a stock route crossed the Nebo Creek. The Nebo district was settled as cattle-grazing country and that was the sole preferred industry for over 100 years.

An assessment of the non-indgenous heritage values of the project site will be undertaken as part of the EIS.

5.10 Socio-Economic

5.10.1 Social Values

The region is dominated by agriculture and mining. The Project will provide job opportunities for local workers during both construction and operation as U&D aims to draw its workforce from the region.

The following environmental values for the regional community are relevant to the Project:

- The liveability of the community
- The economic vitality of the community
- The community demographic
- The availability of community services and infrastructure.

Socio-economic impacts to the environmental values associated with the Project as well as the opportunities presented by the Project will be assessed as part of the EIS.

5.10.2 Visual Amenity

The physical features associated with the Project that may have aesthetic impacts include waste rock dumps, co-disposal dams and surface infrastructure (e.g. CHPP, etc.). However, the remote location of the Project and the type of mining proposed are expected to mitigate any adverse impacts.

5.11 Traffic and Transport

The Broughton Coal Mine Project is well placed to take advantage of existing infrastructure within the Project area. The Suttor Developmental Road passes through EPC818 from west to east, with the Hail Creek rail spur passing through the west of the EPC818 tenure.

Transport of coal will be via existing rail and the relatively short haul distance to the existing port facilities. The Project is approximately 160km by rail to the coal export terminals in the Port of Hay Point via the Hail Creek rail spur and the Goonyella Rail system, which has capability to provide rail capacity to the proposed Broughton mine. Negotiations with coal rail transport providers have been initiated. Current market conditions have resulted in capacity becoming available in existing port facilities at competitive prices.

6. Community and Stakeholder Consultation

6.1 Affected Parties

U&D will undertake negotiations with each landowner to develop separate 'Compensation Agreements' under the Mineral Resources Act 1989 for access to the Project site. Details of 'the Project's 'affected persons' under the EP Act are listed in Table 6.

Table 6. Affected Parties

Party	Interest
Landholder	Mr Ian Michelmore – Land owner
Local Council	Isaac Regional Council
Native Title Claimants	Barada Barna People, Wiri People
Department of Main Roads	Diversion of Suttor Development Road
Aurizon	Connection to rail network
Powerlink	Transmission line
Ergon Energy	Powerline
Overlapping Tenure Holders	Refer Table 3 – petroleum and exploration interests

6.2 Interested Parties

U&D recognises that several government and private stakeholders will have an interest in the impacts and opportunities generated by the Project (Table 7).

Table 7. Interested Parties

Category	Stakeholder
Federal Government	Department of Environment
State Government	Department of Natural Resources and Mines
	Department of Environment and Heritage Protection
	Department of State Development, Infrastructure and Planning
	Department of Education, Training and Employment
	Department of Transport and Main Roads
	Department of Community Safety
	Department of Communities, Child Safety and Disability Services
	Department of Science, Information Technology, Innovation and the Arts
	Queensland Health
Emergency Services	Queensland Ambulance Service

	Queensland Fire and Rescue Service
	Queensland Police Service
Local Government	Isaac Regional Council
	Mackay Regional Council
Adjacent Landholders	Ganra Pty Ltd
	Gaffwick Pty Ltd
	O'Loughlins
	Mr Graham Ross and Mr Graige Ross
	Rio Tinto
	Queensland Coal Pty Ltd
	BHP Billiton Mitsui Coal Pty Ltd

U&D has developed a formal communication and consultation plan, to ensure all potential stakeholders for the Project are appropriately consulted. Consultation will be conducted as required during the key phases of the EIS process, such as the Terms of Reference (ToR) and EIS stakeholder/public comment phases.

Additional stakeholders may be identified and consulted during the course of the EIS process for the Project. Consultation may involve newsletters, static displays, site visits, public meetings, and one-on-one discussions with potential stakeholders. Specific advisory body meetings will be conducted during the course of the EIS process (ie during the public comment periods following the submission of the draft Terms of Reference and the draft EIS).

7. Environmental Management

The EIS will describe:

- the Project's existing environmental values
- the potential adverse and positive impacts to the existing environmental, economic and social values from the Project's construction, operation and decommissioning
- U&D's proposed measures and strategies to prevent or mitigate adverse environmental, economic and social impacts to the Project's environmental values.

An Environmental Management Plan (EMP) for the Broughton Coal Mine Project will be developed and form an integral part of the EIS. The EMP will be developed from the information in the EIS and set commitments to environmental management in order to protect the identified environmental values. The EMP will be based on these commitments.
The general contents of the EMP will comprise:

- **Project's commitments -** The project's commitments to acceptable levels of environmental performance, including environmental objectives like levels of expected environmental harm, performance standards and associated measurable indicators, including progressive and final rehabilitation, performance monitoring and reporting.
- **Impact prevention -** Impact prevention and control strategies to satisfy the commitments.
- **Corrective actions -** Corrective actions to rectify any deviation from performance standards.

The EMP will be developed as stand-alone documentation and will contain management plans, procedures, strategies and supporting information in the appendices.

The EIS will include the development of a set of draft environmental management conditions. On grant of the mining lease for the Project and prior to commencement of operations, U&D will produce a Plan of Operations and submit it to the DEHP describing the proposed activities that will comply with its EA and the proposed schedule of Rehabilitation for Financial Assurance purposes. The Plan of Operations will clearly demonstrate U&D's approach to complying with each condition in the EA and may include specialist management plans for significant Project issues identified during the EIS studies

8. References

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APPENDICES

Appendix 1

Department of Environment and Heritage Protection EIS Determination

Notice

Environmental Protection Act 1994

Information request for an application for an environmental authority

This notice is issued by the administering authority[1] pursuant to section 140 of the Environmental Protection Act 1994 *to request further information needed to assess an application for an environmental authority.*

To: U&D Mining Industry (Australia) Pty Ltd
C/- Environmental and Licensing
Professionals Pty Ltd
GPO Box 559
Brisbane QLD 4001

Email: Richard.Smith@elp.com.au

Attention: Richard Smith

Your reference: EPML01539213
Our reference: 406120

Further information needed to decide an application for an environmental authority

1. **Application details**

The application for an environmental authority, made by U&D Mining Industry (Australia) Pty Ltd and Resource Portfolio Partners Pty Limited was received by the administering authority on 13 September 2013.

The application reference number is: 406120

Land description: ML70511

2. **Information request**

Thank you for your application. The administering authority is unable to make a decision on your application as insufficient information has been provided. In order to make a decision, the administering authority requires the information set out below:

An environmental impact statement (EIS) which completes the EIS process under Chapter 3 of the *Environmental Protection Act 1994.*

3. **Actions**

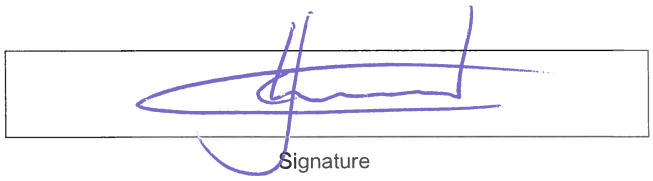
The EIS process under Chapter 3 of the *Environmental Protection Act 1994* will commence when the administering authority[2] receives your draft terms of reference (TOR) as well as the prescribed fee of $33,292. Once the draft TOR and prescribed fee have both been received, the administering authority will begin to review the draft TOR against the requirements of section 41 of the *Environmental Protection Act 1994.* If the submitted draft TOR allows the purpose of the EIS to be achieved, the EIS process will then progress towards public notification of the draft TOR.

[1] The Director-General of the Department of Environment and Heritage Protection is the administering authority under the *Environmental Protection Act 1994.*
[2] The Director-General of the Department of Environment and Heritage Protection is also the chief executive under the *Environmental Protection Act 1994.* The EIS provisions refer to the chief executive.

The assessment of your application for the environmental authority will recommence at the completion of the EIS process. However, if you do not provide a completed EIS within 2 years of the date the final TOR is provided, your application will lapse unless the information request period is extended. A request to extend the information response period must be made at least 10 business days before the date the response is to be provided.

It is recommended that you contact the project manager before commencing the EIS process, if you have any further queries about this request for an EIS. The project manager's contact details are:

Brianna Ryan
Department of Environment and Heritage Protection
99 Hospital Road,
PO Box 3028, Emerald QLD 4720
Phone: (07) 4987 9377
Fax: (07) 4987 9399
Email: Brianna.Ryan@ehp.qld.gov.au



Signature

5/11/2013

Date

Christopher Loveday
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Brianna Ryan
Department of Environment and Heritage Protection
99 Hospital Road,
PO Box 3028, Emerald QLD 4720
Phone: (07) 4987 9377
Fax: (07) 4987 9399
Email: Brianna.Ryan@ehp.qld.gov.au

Appendix 2

Department of the Environment EPBC Determination

Attn 3.6
Comm Ref.

Australian Government
Department of the Environment

EPBC Ref: 2014/7132

Ms Ngaire Tranter
Environment and Approvals Manager
U & D Mining Industry (Australia) Pty Ltd
Level 1, 37 Brandl Street
Eight Mile Plains QLD 4113

Dear Ms Tranter,

Decision on referral
Broughton Coal Mine Project, Bowen Basin, Qld

Thank you for submitting a referral under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).This is to advise you of my decision about the proposed action, to construct and operate an open cut coal mine, approximately 100 km south-west of Mackay.

As a delegate of the Minister for the Environment, I have decided that the proposed action is a controlled action and, as such, requires assessment and a decision on approval under the EPBC Act before it can proceed.

It appears that the proposed action is likely to have a significant impact on the following matters protected by the EPBC Act:

- Listed threatened species and communities (sections 18 & 18A)
- Listed migratory species (sections 20 & 20A)
- A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E)

For example, based on the information available in the referral, the proposed action is likely to have a significant impact because:

- field surveys indicate that the proposed site contains the EPBC Act listed threatened ecological communities: Brigalow (*Acacia harpophylla* dominant and co-dominant), and Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions; and, potential habitat for EPBC Act listed threatened species, including the Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (*Phascolarctos cinereus*) and Black Ironbox (*Eucalyptus raveretiana*).
- there is potential for impacts to areas of known habitat for migratory species, through the direct removal of habitat, and indirectly through changes to water quality and quantity entering nearby water ways and wetlands.
- it is a coal mine in close proximity to water resources, which are mapped and designated as Wetland Management Areas. There is also a Great Barrier Reef (GBR) Wetland Protection Area located approximately 5 km downstream from

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Bee Creek which runs across the northern boundary of the MLA. There is a high level of uncertainty regarding impacts to hydrology, including both surface and groundwater impacts, that may result through the construction and operation of the mine.

Please note that this decision only relates to the potential for significant impacts on matters protected by the Australian Government under Chapter 2 of the EPBC Act.

I have also decided that the project will need to be assessed under the assessment bilateral agreement with Queensland.

Each assessment approach requires different levels of information and involves different steps. All levels of assessment include a public consultation phase, *in which any third parties can comment on the proposed action.*

A copy of the document recording these decisions is enclosed.

The project manager will contact you shortly to discuss the assessment process.

I have also written to the following parties to advise them of this decision:

Referring party	Ms Joanne Salmon Environmental and Licensing Professionals Pty Ltd
State/territory Minister/s	Ms Katherine Harman Delegate of the Minister for Industry Australian Government Department of Industry
Other relevant authority/authorities	Mr Lindsay Delzoppo Department of Environment & Heritage Protection

Please also note that once a proposal to take an action has been referred under the EPBC Act, it is an offence under Section 74AA to take the action while the decision making process is on-going (unless that action is specifically excluded from the referral or other exemptions apply). This provision of the EPBC Act carries a maximum penalty of $425,000. The EPBC Act is available on line at: http://www.environment.gov.au/epbc/about/index.html

The department has recently published an *Environmental Impact Assessment Client Service Charter* (the Charter) which outlines the department's commitments when undertaking environmental impact assessments under the EPBC Act. A copy of the Charter can be found at: http://www.environment.gov.au/epbc/publications/index.html.

If you have any questions about the referral process or this decision, please contact the project manager, Haidi Spence, by email to haidi.spence@environment.gov.au, or telephone 02 6274 2705 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

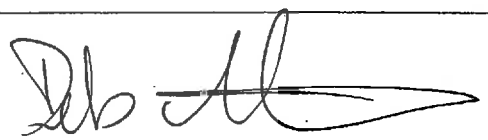
Deb Callister
Assistant Secretary
Queensland and Sea Dumping Assessment Branch
21 March 2014

Australian Government
Department of the Environment

Notification of
REFERRAL DECISION AND DESIGNATED PROPONENT – controlled action

Broughton Coal Mine Project, Bowen Basin, Qld (2014/7132)

This decision is made under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

proposed action	To construct and operate an open cut coal mine, approximately 100 km south-west of Mackay [See EPBC Act referral 2014/7132].
decision on proposed action	The proposed action is a controlled action. The project will require assessment and approval under the EPBC Act before it can proceed.
relevant controlling provisions	• Listed threatened species and communities (sections 18 & 18A) • Listed migratory species (sections 20 & 20A) • A water resource, in relation to coal seam gas development and large coal mining development (sections 24D & 24E)
designated proponent	U & D Mining Industry (Australia) Pty Ltd ACN: 152 892 638
assessment approach	To be assessed under the assessment bilateral agreement with Queensland.
Decision-maker	
name and position	Deb Callister Assistant Secretary Queensland and Sea Dumping Assessment Branch
signature	
date of decision	21 March 2014