Newman Operations – Whaleback Hub
Newman Stretch Assist

Works Approval Supporting Documentation (Including Information relating to Attachments 1 to 10)

November 2019

Contents

List of Tables

List of Figures

Appendices

1. Introduction

1.1. Background

BHP Iron Ore Pty Ltd (BHP) currently operates a number of Iron Ore mines and associated rail and port infrastructure within the Pilbara region of Western Australia (WA). Current mining operations include the:

- Newman Operations consisting of the:
  - Whaleback hub located approximately two kilometres (km) west of Newman Township and consists of Mount Whaleback, and Orebodies (OB) 29, 30 and 35 (**Attachment 2A**); and
  - Eastern Ridge hub located approximately 5 km east of Newman Township and consists of Orebodies 23, 24, 25 and 32;
- Mining Area C / Southern Flank located approximately 90 km north west of Newman Township;
- Jimblebar Operations consisting of Wheelarra Hill (Jimblebar) Mine, Orebody 18 and Orebody 31 are located approximately 35 km east of Newman Township;
- Yandi Mine located approximately 100 km north west of Newman Township.

Ore from the Newman Operations, Mining Area C, Jimblebar Operations and Yandi mining operations is transported to Port Hedland via the BHP Newman to Port Hedland Mainline (and associated spur lines). Ore is then shipped out through Port Hedland at the BHP facilities at Nelson Point and Finucane Island.

1.2. Purpose of this Document

BHP submitted an application to amend Environmental Licence L4503/1975/14 on 30 October 2018. On the 27 November 2018 BHP withdrew the component of the Whaleback licence amendment application relating to Newman Stretch Assist and an increase in production rate to 82 million tonnes per annum (mtpa). BHP is now seeking to undertake the minor upgrades associated with Newman Stretch Assist.

Following completion of these upgrades L4503/1975/14 will continue to be operated at a limit of 80 mtpa. Any proposed increase in throughput will be the subject of a separate licence amendment. No new infrastructure will be constructed.

1.3. Premises

The Whaleback hub (**Attachment 2A**) is located approximately 2 km west of Newman Township in the Pilbara region of WA on Mining Tenement ML244SA.

1.4. Existing Approvals

The Whaleback hub is operated in accordance with Ministerial Statement (MS) 963 (below water table mining at Orebodies 29, 30 and 35) (**Attachment 5A**), Native Vegetation Clearing Permit (NVCP) CPS 5617/5 (Whaleback Strategic NVCP) (**Attachment 5B**) and Environmental Licence L4503/1975/14 (**Attachment 5C**). Environmental Licence L4503/1975/14 has assessed and approved the processing of up to 80 mtpa of iron ore at the Whaleback hub.

1.5. Local Government

The Project is located within the Shire of East Pilbara.

1.6. Proponent

This licence amendment application has been submitted by BHP as the manager for the Mount Newman Joint Venture. The split between the partners of the Joint Venture is as follows:

- BHP Billiton Minerals Pty Ltd 85%
- Itochu Minerals and Energy Australia Pty Ltd 5%
- Mitsui Iron Ore Corporation Pty Ltd 10%

The key contact for this proposal is:

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1.7. Other Approvals

1.7.1. *Environmental Protection and Biodiversity Protection Act, 1999* (EPBC Act)

No approvals are required under the EPBC Act as no matters of National Environmental Significance are impacted by this project.

1.7.2. *Environmental Protection Act, 1986* (EP Act)

Whaleback Hub currently holds three key EP Act Approvals

- Ministerial Statement 963 for dewatering activities at OB29, OB30 and OB35;
- Native Vegetation Clearing Permit (NVCP) CPS 5917/5 for all clearing activities; and
- Environmental Licence L4503/1975/14.

1.7.3. *Rights in Water and Irrigation Act, 1914* (RIWI Act)

Whaleback Hub currently holds two 5C licences to take water:

- GWL65148(10) for Whaleback Pit; and
- GWL160418(8) for OB29, OB30 and OB35.

1.7.4. Iron Ore (Mount Newman) Agreement Act, 1964

The Newman Upgrades State Agreement proposal to run Whaleback at 82 mtpa was approved on 23 April 2019.

1.7.5. Land Administration Act, 1997 (LA Act)

The project does not require any approvals under the LA Act as this Act does not apply on State Agreement Act tenure.

1.7.6. Dangerous Goods Safety Act, 2004

Whaleback Hub currently holds eight Dangerous Goods Licences:

- DGS015372;
- DGS015398;
- DGS015402;
- DGS015403;
- DGS015404;
- DGS016933;
- DGS021844; and
- DGS022033.

1.7.7. Planning Approvals

No planning approvals are required on State Agreement Act tenure.

1.7.8. Other Federal legislation

No other Federal Legislation is applicable to this Project.

2. Project Description

BHP is proposing to undertake a series of upgrades to the Whaleback Ore Handling Plant 4, Car Dumper and Reclaimer (**Attachment 2B**). The changes will not involve the construction of new infrastructure, but will instead improve the reliability and utilisation rates of the existing facilities.

2.1.1. Whaleback Ore Handling Plant 4 Upgrades

The Ore Handling Plant 4 upgrades will remove bottlenecks between the coarse ore stockpile, the product stockpiles and train loadouts and includes:

- Upgrades to the following conveyors:
  - CV401: new 800kW drive, new drive pulley, power switching, structural modifications and modifications to five scalping screen oversize discharge chutes;
  - CV402: new 450kW drive new drive pulley, new Rotor Resistance Cubicle (RRC) with power switching, structural modifications, new actuated training idlers and guide rollers and modifications to transfer chute;
  - CV454: two new 800kW drives, drive pulley, actuated training idlers and guide rollers, two new RRC's with power switching and structural modifications;
  - CV404: new 630kW drive, drive pulley and power switching;
  - CV405: new 1250kW drive, drive pulley assembly, brakes, RRC with power switching, structural modifications, transfer chute (CV405/406) modifications, control system modifications, new actuated training idlers and guide rollers, modifications to five scalping screen fines discharge chutes;
  - CV406 New 630kW drive, drive pulley assembly, brakes, RRC with power switching, idlers, structural, transfer chute (CV406/601) and sample station modifications and control system modifications;
  - CV504: two new 800kW motors, new drive pulley and new actuated impact plate;
  - CV601 New 2000kW drive, bend and drive pulley assembly, brakes, belt, RRC with power switching, structural and transfer chute modifications and control system modifications;
  - CV603: backstop upgrade and power switching;
  - CV702: new disc brake callipers, power switching, structural modifications and modification to transfer chutes;
  - CV751: brake setting adjustment, power switching and structural modifications;
  - CV752: brake setting adjustment, power switching and structural modifications; and

2.1.2. Whaleback Car Dumper Upgrades (CD501)

The Whaleback Car Dumper upgrades will remove bottlenecks between the coarse ore stockpile and Ore Handling Plant 4 and includes:

- Recommissioning of conveyors CV 502 and CV503 and apron feeders FD501, FD502 and FD503
- Installation of new shock absorber assemblies;
- Installation of two new brake callipers (BSFI 208); and
- Upgrading the control philosophy to increase the tip and return speed.

2.1.3. Whaleback Reclaimer Upgrades (RC701)

The reclaimer upgrade will remove bottlenecks between the reclaimer and Ore Handling Plant 4 and includes:

- Upgrading the boom conveyor drive pulley and idlers;
- Upgrading the Low Voltage Motor Control Centre Upgrade step up transformer from 6.6kV to 11kV
- Upgrading the transfer chute; and
- Modifying the bucket wheel by:
  - Installing a New 1200 kW hydraulic power unit;
  - Upgrading the drive motor trailing cable;
  - Installing two new 630kW conveyor drives;
  - Upgrading the bucket wheel shaft and bearings;
  - Upgrading the buckets;
  - Replacing the existing electro-mechanical drive with a Hydraulic drive; and
  - Installing a new drive platform.

2.1.4. Whaleback Stacker Upgrades (ST601)

The stacker upgrade will remove bottlenecks between Ore Handling Plant 4 and the product stockpiles and includes:

- Installing two new 355kW conveyor drives, conveyor pulleys and idlers;
- Installing a new 1.5MVA transformer;
- Upgrading the transfer chute; and
- Control system modifications.

2.2. Construction

The Project will be within previously cleared areas at Whaleback (**Attachment 2B**) and will minor upgrades to existing Whaleback Hub infrastructure.

A Compliance Report will be submitted following the completion of construction of the Project.

2.3. Commissioning

BHP is proposing to undertake a five month commissioning period for the Project. Commissioning will involve running ore throughout each upgraded area of the plant to ensure that each item functions correctly.

A Commissioning Report will be submitted following the completion of commissioning of the Project.

2.4. Operation

Following submission of the Commissioning Report BHP will commence operation of the Project under the existing Prescribed Premises Licence L4503/1975/14 which approves the processing of up to 80 mtpa of ore. BHP is not proposing to amend L4503/1975/14 prior to operating the facility as there is no change to infrastructure locations and there will be no increase to the limit for processing under Category 5.

3. Existing Environment

3.1. Climate

Newman Aero meteorological site (007176) is the closest Bureau of Meteorology (BoM) station to Whaleback hub. Average annual rainfall at Newman Aero is 332.6 mm (BOM, 2018a). This is mainly derived from tropical storms and cyclones during summer, producing sporadic, heavy rains over the area. Mean monthly rainfall varies from 3.9 mm in September to 71.7 mm in February (BoM, 2018a). Daily rainfall is highly variable; the highest maximum daily rainfall ranges from 34.8 mm in October, to 305.6 mm in February (BoM, 2018a). The mean maximum temperature in summer months (October to March) is 35.2°C to 39.0°C, and mean maximum temperature in winter (April to September) is between 22.9°C and 31.8°C (BoM, 2018a).

Wittenoom meteorological site (005026) is the closest station to Whaleback hub that records daily evaporation. Wittenoom is located approximately 200 km north west of Whaleback hub. Mean daily evaporation at Wittenoom throughout the year is 8.6 mm/day (BoM, 2018b), which equates to 3.1 metres per year. Evaporation greatly exceeds rainfall in the region throughout the year and on a month-by-month basis (BoM, 2018b).

3.2. Soils and Landform

The Prescribed Premises is located within the Boolgeeda, Elimunna, McKay, Newman, River, Rocklea and Spearhole Land systems as mapped by van Vreeswyk *et al*. (2004):

- The Boolgeeda Land system is described as: “Stony lower slopes, level stony plains and narrow sub-parallel drainage floors, relief up to 20 m. A common system in shallow valleys below hill systems such as Newman and Rocklea.”
- The Elimunna Land system is described as: “Stony plains on basalt supporting sparse acacia and cassia shrublands and patchy tussock grasslands.”
- The McKay Land system is described as: “Hills, ridges, plateaux remnants and minor breakaways of sedimentary and meta sedimentary rocks, relief up to 100 m.”
- The Newman Land system is described as: “Rugged high mountains, ridges and plateaux with near vertical escarpments of jaspilite, chert and shale, the second largest system in the survey area and prominent in southern parts (e.g. Ophthalmia Range, Hamersley Range), relief up to 450 m.”
- The River Land system is described as: “Narrow floodplains and major channels.”
- The Rocklea Land system is described as: “Basalt hills, plateaux, lower slopes and minor stony plains supporting hard Spinifex (and occasional soft Spinifex) grasslands.
- The Spearhole Land system is described as: “Level to gently undulating hardpan wash plains with abundant to very abundant surface mantles of ironstone pebbles and prominent grove patterns of vegetation, widely spaced tributary drainage channels, low rises and dissected slopes with relief up to 35 m.”

Soils of the Pilbara region have been defined and mapped at a scale of 1:2,000,000 by Bettenay et al. (1967). Four soil units occur within the Prescribed Premises: BE6, Fa13, Fa14 and OC64.

- Soil Unit BE6 is described as: “Extensive flat and gently sloping plains, which sometimes have a surface cover of gravels and on which redbrown hardpan frequently outcrops: chief soils are shallow earthy loams (Um5.3), with associated (Gn) soils of units My5O and Mz23 of Sheet 6. As mapped, there are inclusions of units Oc47 and BB9.”
- Soil Unit Fa13 is described as: “Ranges of banded jaspilite and chert along with shales, dolomites, and iron ore formations; some areas of ferruginous duricrust as well as occasional narrow winding valley plains and steeply dissected pediments. This unit is largely associated with the Hamersley and Ophthalmia Ranges. The soils are frequently stony and shallow and there are extensive areas without soil cover: chief soils are shallow stony earthy loams (Um5.51) along with some (Uc5.11) soils on the steeper slopes. Associated are (Dr2.33, Dr2.32) soils on the limited areas of dissected pediments, while (Um5.52) and (Uf6.71) soils occur on the valley plains.”
- Soil Unit Fa14 is described as: “Steep hills and steeply dissected pediments on areas of banded jaspilite and chert along with shales, dolomite, and iron ore formations; some narrow winding valley plains: chief soils are shallow stony earthy loams (Um5.51) along with some (Uc5.11) soils on the steeper slopes. (Dr2.33, Dr2.32) soils which occur on the pediments are more extensive in this unit than in unit Fa13. (Um5.52) and (Uf6.71) soils occur on the valley plains.
- Soil Unit OC64 is described as: “Low stony hills and dissected pediments on granite with occasional basic dykes: chief soils are hard, alkaline red soils (Dr2.33) having shallow stony A horizons. Associated are shallow stony (Uc5.11) soils on steep slopes; (Uc1.22) soils along creek lines; and (Um5.11) soils on patches of calcrete (kunkar).”

There is no known risk of acid sulfate soils within the prescribed premises. Acid forming rock is encountered as part of mining and is managed via WAIO's management procedures and the ARD Dam and associated evaporation ponds;

3.3. Surface Water

Whaleback hub is located in the Pilbara Surface Water Area, proclaimed under the RIWI Act (DoW, 2009a).There are no permanent watercourse or wetlands within or associated with the premises. Whaleback Creek along with other unnamed minor drainage lines within the premises are dry for most of the year, only flowing intermittently during rainfall event.

Discharge activities occur at the licenced Ophthalmia Dam Discharge Point (W1) and the licenced emergency / Contingency Discharge points (W2, L3 and L4).

3.4. Groundwater

Whaleback hub is located in the Pilbara Groundwater Area, proclaimed under the RIWI Act (DoW, 2009b). The Prescribed Premises lies within the following regional aquifer:

1. Hamersley – Fractured Rock Aquifer: The Precambrian rocks of the Hamersley Basin are principally volcanics, shales and iron formations. Groundwater is contained within fractures within these rocks. The groundwater level may be deep below the surface, and is generally fresh. The main use of this aquifer is for mining and mine dewatering from iron ore mines. Bores have also been drilled for road and railway construction. There will be increasing dewatering from the fractured rocks around iron ore mines as the pits become deeper (DoW, 2015).

Discharge activities occur at the licenced Ophthalmia Dam Discharge Point (W1) which overlays this aquifer and is in a P1 public drinking water source areas.

3.5. Public Drinking Water Source Areas

The project is located within the P1 Newman Water Reserve (as does almost all of the Prescribed Premises including Whaleback pit and the existing OHPs);

3.6. Flora and Vegetation

No significant flora species listed under the EPBC Act or the *Biodiversity Conservation Act, 2016* (BC Act) have been identified within the Prescribed Premises.

There are six Priority Flora species listed by the Department of Biodiversity, Conservation and Attractions (DBCA) located within the Prescribed Premises:

1. *Calotis latiuscula* (Priority 3);
2. *Eremophila magnifica* subsp. *magnifica* (Priority 4);
3. *Euphorbia inappendiculata* var. *inappendiculata* (Priority 2);
4. *Goodenia nuda* (Priority 4);
5. *Gymnanthera cunninghamii* (Priority 3); and
6. *Lepidium catapycnon* (Priority 4).

Onshore Environmental (2014) identified 10 broad floristic communities with 33 vegetation associations within the Prescribed Premises.

None of these vegetation associations represent or are associated with a TEC listed under the EPBC Act or an Environmentally Sensitive Area under the EP Act or a Priority Ecological Community (PEC) listed by the DCBA.

The Project is located in area which has already been cleared. No significant flora species have been identified within or adjacent to the Project area. Any vegetation disturbance will be undertaken in accordance with NVCP CPS 5617/4 (or subsequent revisions).

3.7. Vertebrate Fauna

Biologic (2014) identified nine habitat types within the Prescribed Premises: Calcrete Area, Crest / Slope, Drainage Area, Gorge / Gully, Major Drainage Line. Minor Drainage Line, Mulga, Sand Plain and Stony Plain. Twelve significant fauna species have been identified within the Prescribed Premises:

1. Common Greenshank (*Tringa nebularia*) Migratory (EPBC Act) Schedule 5 (WC Act);
2. Common Redshank (*Tringa tetanus*) Migratory (EPBC Act) Schedule 5 (WC Act);
3. Common Sandpiper (*Actitis hypoleucos*) Migratory (EPBC Act) Schedule 5 (WC Act);
4. Eastern Great Egret (*Ardea modesta*) Migratory (EPBC Act) Schedule 5 (WC Act);

5. Ghost Bat (*Macroderma gigas*) Vulnerable (EPBC Act) Schedule 3 (WC Act);
6. Long-tailed Dunnart (*Sminthopsis longicaudata*) Priority 4 (DBCA);
7. Marsh Sandpiper (*Tringa stagnatilis*) Migratory (EPBC Act) Schedule 5 (WC Act);
8. Peregrine Falcon (*Falco peregrinus*) Schedule 7 (WC Act);
9. Pilbara Olive Python (*Liasis olivaceus barroni*) Vulnerable (EPBC Act) Schedule 3 (WC Act);
10. Rainbow Bee-eater (*Merops ornatus*) Migratory (EPBC Act) Schedule 5 (WC Act);
11. Western Pebble-Mound Mouse (*Pseudomys chapmani*) Priority 4 (DPaW); and
12. Wood Sandpiper (*Tringa glareola*) Migratory (EPBC Act) Schedule 5 (WC Act).

The Project is located in area which has already been cleared. No significant fauna species have been identified within or adjacent to the Project area. Any vegetation disturbance will be undertaken in accordance with NVCP CPS 5617/4 (or subsequent revisions).

3.8. Air Quality

Note that the Project will increase the separation distance for marra mamba processed ore by 500m to the nearest residential property.

An air quality impact assessment was undertaken for the Eastern Ridge Revised Proposal (Jacobs, 2015) which modelled a processing rate of up to 45 mtpa at Eastern Ridge and 80 mtpa at Whaleback Hub. The impact assessment concluded that the expected result in maximum air quality impacts would be largely the same as the baseline conditions.

While the results of the Jacobs (2015) air quality impact assessment are likely to be conservative (due to modelling maximum mining rates) the comparison between the baseline (Whaleback 80 mtpa and Eastern Ridge 31 mtpa) and the Eastern Ridge Revised Proposal scenarios indicates that emissions will need to be managed as far as practicable in order to maintain off-site PM_{10} concentrations at or below existing levels. Currently Eastern Ridge is licenced to process up to 41 mtpa.

Dust management at Whaleback Mining Operations are conducted in accordance with the following dust control methods:

- Occupational and ambient dust levels are controlled by the implementation of the following measures:
  - Water tankers are used to apply water to sites within areas of operation which have the potential to generate dust, including unsealed roads, haul roads and construction areas;
  - Areas of exposed soil (land disturbance) are minimised;
  - Dust suppression equipment is maintained in efficient operating condition; and
  - Disturbed areas are rehabilitated as they become available;
- Routine maintenance and housekeeping practices are employed to ensure that waste materials in or around the premises do not accumulate and lead to the generation of unacceptable airborne dust;
- Chemical suppressants are used for general site dust suppression where practicable;
- Dust extraction equipment is regularly maintained;
- Dust controls (e.g. water sprays/cannons, belt scrapers) are installed and maintained on stackers, reclaimers and long conveyors;
- Major traffic thoroughfares are sealed and kerbing or bunding installed to discourage off-road passage where practicable. Vehicle traffic is preferably directed along routes that are regularly maintained and sprayed with dust suppressants;
- Speed limits are enforced to minimise dust emissions; and
- Site personnel are required to undergo training and be made aware of their responsibility to reduce and report excessive dust emissions.

3.9. Contaminated Sites

There are a number of contaminated sites within the boundary of L4503/1975/14. The project will not impact on any of these sites (**Attachment 2D**)

4. Environmental Management

4.1. Corporate Level Plans and Procedures

The management of the environmental aspects of BHP's operations for the Prescribed Premises are managed under the company's AS/NZS ISO 14001:2016 certified Environmental Management System (EMS). The EMS describes the organisational structure, responsibilities, practices, processes and resources for implementing and maintaining environmental objectives at all BHP sites.

Additionally, operational controls for environmental management for the Prescribed Premises are guided by BHP's Charter values. The Charter Values outline a commitment to develop, implement and maintain management systems for sustainable development that drive continual improvement and set and achieve targets that promote efficient use of resources. In order to give effect to the Charter Values, a series of "Our Requirements" documents have been developed.

BHP has also developed a Sustainable Development Policy for its Iron Ore operations. The Sustainable Development Policy outlines a commitment to setting objective and targets to achieve sustainable outcomes and to continually improve our performance.

To support these documents BHP has an internal Project Environmental and Aboriginal Heritage Review (PEAHR) system for its Iron Ore operations. The purpose of the system is to manage implementation of environmental, Aboriginal heritage, land tenure and legal commitments prior to and during land disturbance. All ground disturbance activities will meet the requirements of the PEAHR system.

5. Environmental Impact Assessment and Associated Management Strategies

BHP has assessed the potential emissions and discharges associated with the proposed upgrades and has been determined that the following potential impacts are relevant to this application:

- Increase in dust and noise emissions

Tables 1 to 3 outline a description of each potential discharge/emission, the potential impacts, sensitive receptors, management measures, and residual risk ranking for each project phase (Construction, Commissioning and Operation).

The risk rating determination has been undertaken in accordance with Guidance Statement: Risk Assessments (DER, 2017).

The following other potential impacts associated with the Project have been determined to have a Low Risk (Slight, Unlikely) and can be can be managed under the existing Conditions of L4503/1975/14:

- Clearing of vegetation: The Project area has been cleared. In the event minor clearing activities are required these will be conducted in accordance with NVCP CPS 5617/5 (or subsequent revisions).
- Discharges to Water: The activities associated with the Project are not expected to cause significant discharges to water.
- Discharges to Land: The activities associated with the Project are not expected to cause significant discharges to land.
- Solid Waste Management: A number of non-mineral solid wastes will be generated as a result of the Project. Wastes will be managed and disposed of in accordance with the Conditions of L4503/1975/14.
- Liquid Waste Management: Potential liquid wastes associated with Project includes equipment wash water, contaminated water, lubricants, hydraulic oil, coolants, detergents and degreasers. Management measures are aimed at the prevention of spills through the implementation of engineering and administrative controls. Preventive maintenance will aim to limit the potential for equipment failure leading to environmental contamination. Spill prevention measures to be implemented during refuelling at the Project will include the use of drip pans and absorbent materials.

  An approved contractor will be used for the removal of waste oil for recycling in accordance with the *Environmental Protection (Controlled Waste) Regulations, 2004*. Hydrocarbon contaminated soil will be managed and disposed of in accordance with the Conditions of L4503/1975/14.

Table 1: Construction of NSA Environmental Impact Assessment and Associated Management Strategies

Risk Event						Management Measures	Residual Risk Ranking (Consequence / Likelihood)
Sources / Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**		
Category 5 Processing or beneficiation of metallic or non-metallic ore	Processing of ore	Dust	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity — visible dust leaving the Premises and dust fallout onto cars, businesses and recreational areas.	No additional clearing is required and the works will all be done on existing infrastructure within previously cleared areas. The proposed activities involve the upgrade to existing infrastructure to improve the reliability and utilisation rates. There are no new dust emission points and the licence limit will remain unchanged. Therefore the existing dust management at Whaleback is considered to be sufficient to manage this change: Dust management at Whaleback Mining Operations are conducted in accordance with the following dust control methods: • Occupational and ambient dust levels are controlled by the implementation of the following measures: o Water tankers are used to apply water to sites within areas of operation which have the potential to generate dust, including unsealed roads, haul roads and construction areas. o Areas of exposed soil (land disturbance) are minimised. o Disturbed areas are rehabilitated as they become available. • Routine maintenance and housekeeping practices are employed to ensure that waste materials in or around the premises do not accumulate and lead to the generation of unacceptable airborne dust. • Chemical suppressants will be used for general site dust suppression where practicable. • Major traffic thoroughfares will be sealed and kerbing or bunding will be installed to discourage off-road passage where practicable. Vehicle traffic will preferably be directed along routes that are regularly maintained and sprayed with dust suppressants. • Speed limits will be enforced to minimise dust emissions. • Site personnel will be required to undergo training and be made aware of their responsibility to reduce and report excessive dust emissions.	**Medium (Minor, Possible)** The construction of the proposed minor upgrades are not anticipated to significantly add to the dust emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.
	Processing of ore	Noise	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity	There may be some minor noise during construction activities but these will be adjacent to active ore processing area. Therefore specific mitigations are not required to manage noise beyond the monitoring of noise at the major noise sources avoid the occurrence of noise induced hearing loss	**Medium (Minor, Possible)** The proposed minor upgrades are not anticipated to significantly add to the noise emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.

Table 2: Commissioning of NSA Environmental Impact Assessment and Associated Management Strategies

Risk Event						Management Measures	Residual Risk Ranking (Consequence / Likelihood)
Sources / Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Category 5 Processing or beneficiation of metallic or non-metallic ore	Processing of ore	Dust	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity — visible dust leaving the Premises and dust fallout onto cars, businesses and recreational areas.	The proposed activities will result in upgrades to existing infrastructure and are designed to improve the reliability and utilisation rates. There are no new dust emission points and the licence limit will remain unchanged. The proposed commissioning activities involve running the plant with the newly installed upgrades to existing infrastructure to improve the reliability and utilisation rates and therefore the existing dust management measures at Whaleback is considered to be sufficient to manage this change. Dust management at Whaleback Mining Operations are conducted in accordance with the following dust control methods: • Occupational and ambient dust levels are controlled by the implementation of the following measures: o Crusher transfer points are enclosed and fitted with water sprays. o Water tankers are used to apply water to sites within areas of operation which have the potential to generate dust, including unsealed roads, haul roads and construction areas. o Areas of exposed soil (land disturbance) are minimised. o Dust suppression equipment is maintained in efficient operating condition. o Disturbed areas are rehabilitated as they become available. • Routine maintenance and housekeeping practices are employed to ensure that waste materials in or around the premises do not accumulate and lead to the generation of unacceptable airborne dust. • Chemical suppressants will be used for general site dust suppression where practicable. • Dust extraction equipment will be regularly maintained. • Dust controls (e.g. water sprays/cannons, belt scrapers) will be installed and maintained on stackers, reclaimers and long conveyors. • Major traffic thoroughfares will be sealed and kerbing or bunding will be installed to discourage off-road passage where practicable. Vehicle traffic will preferably be directed along routes that are regularly maintained and sprayed with dust suppressants. • Speed limits will be enforced to minimise dust emissions. • Site personnel will be required to undergo training and be made aware of their responsibility to reduce and report excessive dust emissions.	**Medium (Minor, Likely)** The proposed minor upgrades are not anticipated to significantly add to the dust emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.
Category 5 Processing or beneficiation of metallic or non-metallic ore (cont)	Processing of ore	Noise	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity	The proposed activities involve the upgrade to existing infrastructure to improve the reliability and utilisation rates. There are no new noise emission points and therefore no additional specific mitigations are to manage noise beyond the monitoring of noise at the major noise sources avoid the occurrence of noise induced hearing loss.	**Medium (Minor, Possible)** The proposed minor upgrades are not anticipated to significantly add to the noise emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.

Table 3: Operation of NSA Environmental Impact Assessment and Associated Management Strategies

Risk Event						Management Measures	Residual Risk Ranking (Consequence / Likelihood)
Sources / Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Category 5 Processing or beneficiation of metallic or non-metallic ore	Processing of ore	Dust	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity — visible dust leaving the Premises and dust fallout onto cars, businesses and recreational areas.	The proposed activities involve the upgrade to existing infrastructure to improve the reliability and utilisation rates. There are no new dust emission points and the licence limit will remain unchanged. Therefore the existing dust management at Whaleback is considered to be sufficient to manage this change. Dust management at Whaleback Mining Operations are conducted in accordance with the following dust control methods: • Occupational and ambient dust levels are controlled by the implementation of the following measures: o Crusher transfer points are enclosed and fitted with water sprays. o Water tankers are used to apply water to sites within areas of operation which have the potential to generate dust, including unsealed roads, haul roads and construction areas. o Areas of exposed soil (land disturbance) are minimised. o Dust suppression equipment is maintained in efficient operating condition. o Disturbed areas are rehabilitated as they become available. • Routine maintenance and housekeeping practices are employed to ensure that waste materials in or around the premises do not accumulate and lead to the generation of unacceptable airborne dust. • Chemical suppressants will be used for general site dust suppression where practicable. • Dust extraction equipment will be regularly maintained. • Dust controls (e.g. water sprays/cannons, belt scrapers) will be installed and maintained on stackers, reclaimers and long conveyors. • Major traffic thoroughfares will be sealed and kerbing or bunding will be installed to discourage off-road passage where practicable. Vehicle traffic will preferably be directed along routes that are regularly maintained and sprayed with dust suppressants. • Speed limits will be enforced to minimise dust emissions. • Site personnel will be required to undergo training and be made aware of their responsibility to reduce and report excessive dust emissions.	**Medium (Minor, Likely)** The proposed minor upgrades are not anticipated to significantly add to the dust emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.
Category 5 Processing or beneficiation of metallic or non-metallic ore (cont)	Processing of ore	Noise	Town of Newman – closest residential property is approximately 3.5 km from the ore processing facilities	Air / wind dispersion	Impact on amenity	The proposed activities involve the upgrade to existing infrastructure to improve the reliability and utilisation rates. There are no new noise emission points and therefore no additional specific mitigations are to manage noise beyond the monitoring of noise at the major noise sources avoid the occurrence of noise induced hearing loss.	**Medium (Minor, Possible)** The proposed minor upgrades are not anticipated to significantly add to the noise emissions already being produced at the Whaleback Mining Operations, and will therefore not significantly impact any sensitive receptors.

6. References

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Department of Water (2009b) Groundwater Proclamation Areas 2009. Website: https://www.water.wa.gov.au/__data/assets/pdf_file/0019/1675/86307.pdf Accessed 05 September 2017

Department of Water (2015) *Hydrogeological Atlas: Hamersley – Fractured Rock*. http://www.water.wa.gov.au/idelve/hydroatlas/ioiQuery.jsp?ts=1421024384008&d=hydroatlas&bb=116.2710462,-23.570724506092837,119.38272319999999,-21.29263989390716&k=NONE&w=1034&h=757&z=1003199.8498259148&x=118.62436478220502&y=-23.254741832011604&i=782&j=652 Accessed 12 January 15.

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van Vreeswyk, A.M.E., Payne, A.L., Leighton, K.A. and Hennig, P. (2004) *An Inventory and Condition Survey of the Pilbara Region, Western Australia*. Technical Bulletin No. 92, Department of Agriculture, Perth.

Attachment 1A: Proof of occupier status

WESTERN AUSTRALIA

IRON ORE (MOUNT NEWMAN) AGREEMENT ACT, 1964

MINERAL LEASE No. 244 SA

Copy Lease Instrument issued in lieu of Duplicate declared lost vide Declaration of Loss No. 1611/72 registered 3.30 pm on 31st August, 1972.

for Principal Registrar
DEPARTMENT OF MINES PERTH

WESTERN AUSTRALIA

IRON ORE (MOUNT NEWMAN) AGREEMENT ACT, 1964.

MINERAL LEASE

No. 244SA

Pilbara, West Pilbara and Peak Hill Goldfields

ELIZABETH THE SECOND, by the Grace of God of the United Kingdom, Australia and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith:

TO ALL TO WHOM THESE PRESENTS shall come GREETINGS:

KNOW YE that WHEREAS by an Agreement made the twenty-sixth day of August, 1964, between the State of Western Australia of the one part and MT. NEWMAN IRON ORE COMPANY LIMITED (hereinafter called "the Company" which expression will include the successors and assigns of the Company including where the context so admits the assignees of the Company under clause 19 of the said Agreement) of the other part the said State agreed to grant to the Company a mineral lease of portion or portions of the lands referred to in the said Agreement as "the mining areas" AND WHEREAS the said Agreement was ratified by the Iron Ore (Mount Newman) Agreement Act, 1964 which said Act (inter alia) authorised the grant of a mineral lease to the Company AND WHEREAS the rights and obligations of the Company under the said Agreement have been assigned pursuant to clause 19(i)(a) of the said Agreement to AMAX IRON ORE CORPORATION a Company incorporated in the State of Delaware in the United States of America (hereinafter called "Amax Iron") PILBARA IRON LIMITED a Company incorporated in the said State (hereinafter called "Pilbara") DAMPIER MINING COMPANY LIMITED a Company incorporated in the said State (hereinafter called "Dampier") SELTRUST IRON ORE LIMITED a Company incorporated in England (hereinafter called "Seltrust Iron") and MITSUI-C. ITOH IRON PTY. LTD. a Company incorporated in the said State (hereinafter called "Mitsui Iron") (the aforesaid Companies being hereinafter collectively called "the Assignees") as tenants in common in the following respective undivided shares absolutely:-

Pilbara	$\frac{30}{100}$
Dampier	$\frac{30}{100}$
Amax Iron	$\frac{25}{100}$
Mitsui Iron	$\frac{10}{100}$
Seltrust Iron	$\frac{5}{100}$

NOW WE in consideration of the rents and royalties reserved by and of the provisions of the said Agreement and in pursuance of the said Act DO BY THESE PRESENTS GRANT AND DEMISE unto the Assignees subject to the said provisions ALL THOSE pieces and parcels of land situated in the Pilbara, West Pilbara and Peak Hill Goldfields containing by admeasurement three hundred square miles be the same more or less and particularly described and delineated on the plan in the Schedule hereto and all those mines, veins, seams, lodes and deposits of iron ore in on or under the said land (hereinafter called "the said mine") together with all rights, liberties, easements, advantages, and appurtenances thereto belonging or appertaining to a lessee of a mineral lease under the Mining Act, 1904 including all amendments thereof for the time being in force and all regulations made thereunder for the time being in force (which Act and regulations are hereinafter referred to as "the Mining Act") or to which the Company is entitled under the said Agreement TO HOLD the said land and mine and all and singular the premises hereby demised for the full term of twenty-one years from the seventh day of April, 1967 with the right to renew the same from time to time for further periods each of twenty-one years as provided in but subject to the said Agreement for the purposes but upon and subject to the terms covenants and conditions set out in the said Agreement and to the Mining Act (as modified by the said Agreement) YIELDING and paying therefor the rent and royalties as set out in the said Agreement. AND WE do hereby declare that this lease is subject to the observance and performance by the Assignees of the following covenants and conditions, that is to say:-

4. The Assignees shall and will use the land bona fide exclusively for the purposes of the said Agreement.

5. Subject to the provisions of the said Agreement the Assignees shall and will observe, perform and carry out the provisions of the Mines Regulation Act, 1946, and all amendments thereof for the time being in force and the regulations for the time being in force made thereunder and subject to and also as modified by the said Agreement the Mining Act so far as the same affect or have reference to this lease.

PROVIDED THAT this lease and any renewal thereof shall not be determined or forfeited otherwise than under and in accordance with the provisions of the said Agreement.

PROVIDED FURTHER that all petroleum on or below the surface of the demised land is reserved to Her Majesty with the right to Her Majesty or any person claiming under her or lawfully authorised in that behalf to have access to the demised land for the purpose of searching for and for the operations of obtaining petroleum in any part of the land under the provisions of the Petroleum Act, 1936.

IN WITNESS whereof we have caused our Minister for Mines to affix his seal and set his hand hereto at Perth in our said State of Western Australia and these presents have been executed by or on behalf of the Assignees this

day of , 1967.

SIGNED SEALED AND DELIVERED by ARTHUR FREDERICK GRIFFITH Minister for Mines in the presence of:-

.....

.....

AMAX IRON ORE CORPORATION

By.....
President

Attest:

By.....
Assistant Secretary

THE COMMON SEAL OF PILBARA IRON LIMITED was hereunto affixed pursuant to a resolution of the Board of Directors

.....
Director

.....
Secretary

SIGNED SEALED AND DELIVERED for and on behalf of DAMPIER MINING COMPANY LIMITED by its duly authorised attorney in the presence of:-

.....

.....

SIGNED SEALED AND DELIVERED)
for and on behalf of SELTRUST)
IRON ORE LIMITED by [illegible])
authorised attorney in the)
presence of:-)

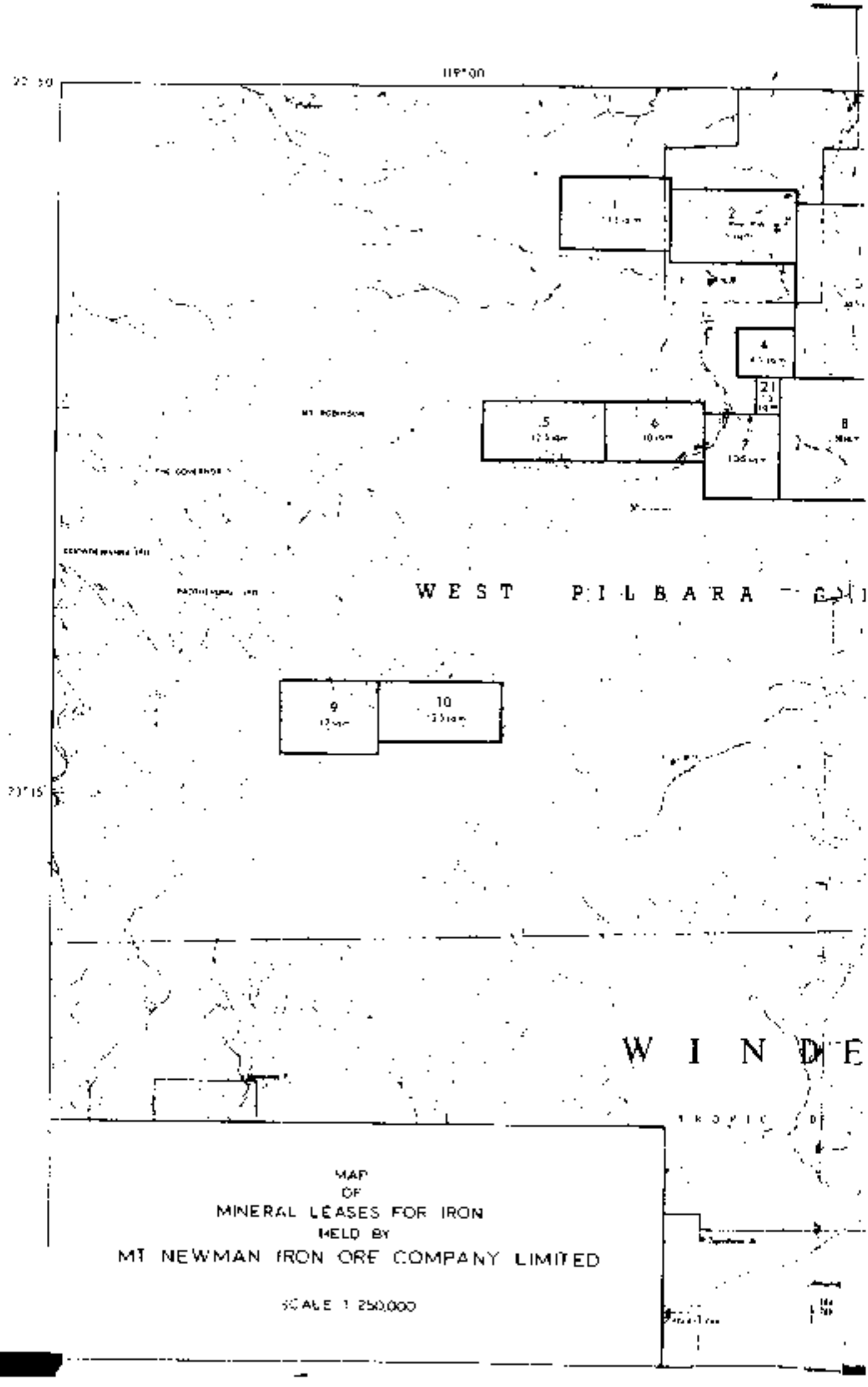
.....

THE COMMON SEAL of MITSUI-C.)
ITOH IRON PTY. LTD. was here-)
unto affixed by authority of)
the Board of Directors in the)
presence of:-)

.....
Director

.....
Secretary

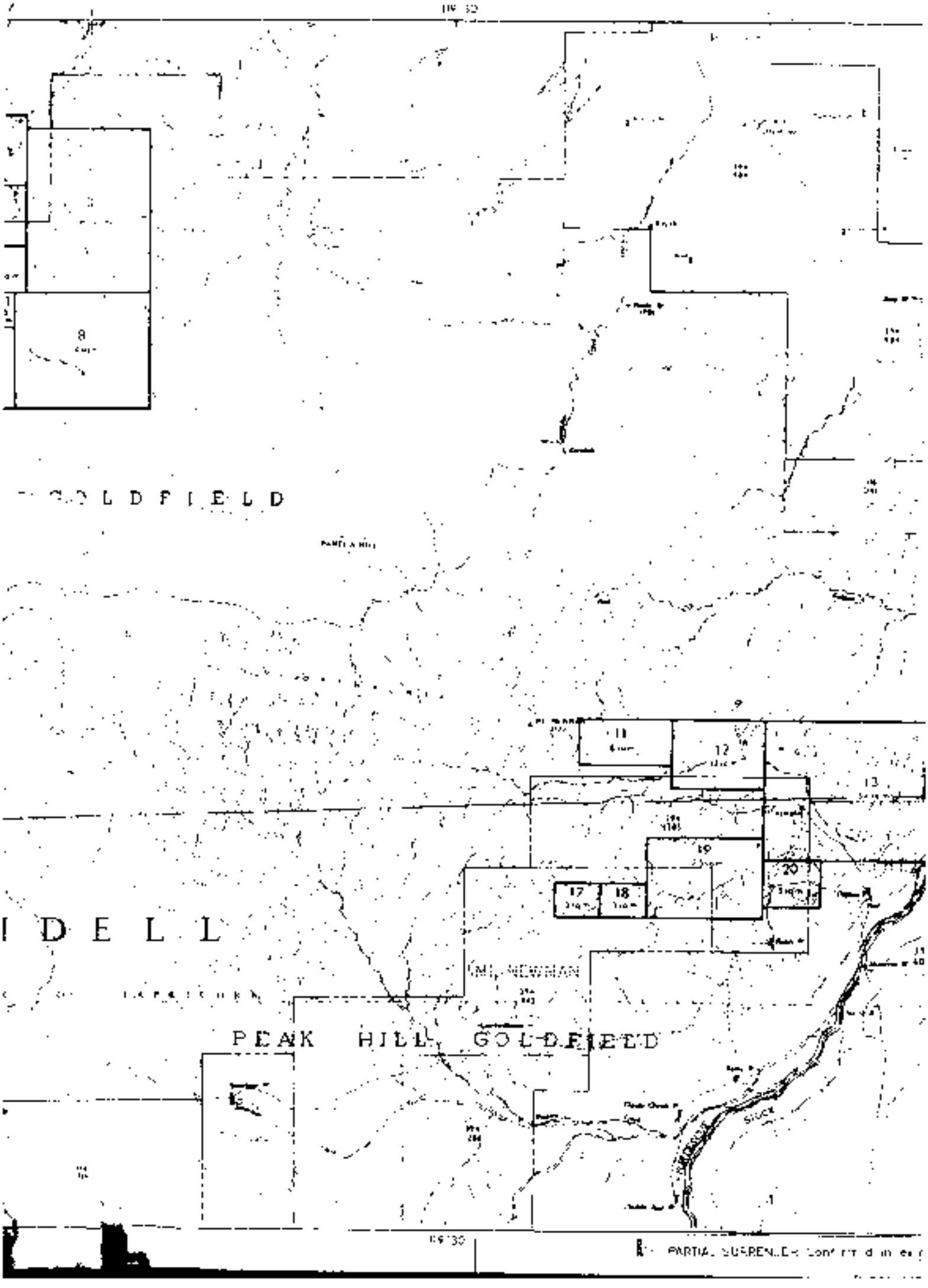
[illegible] 25-10-1983



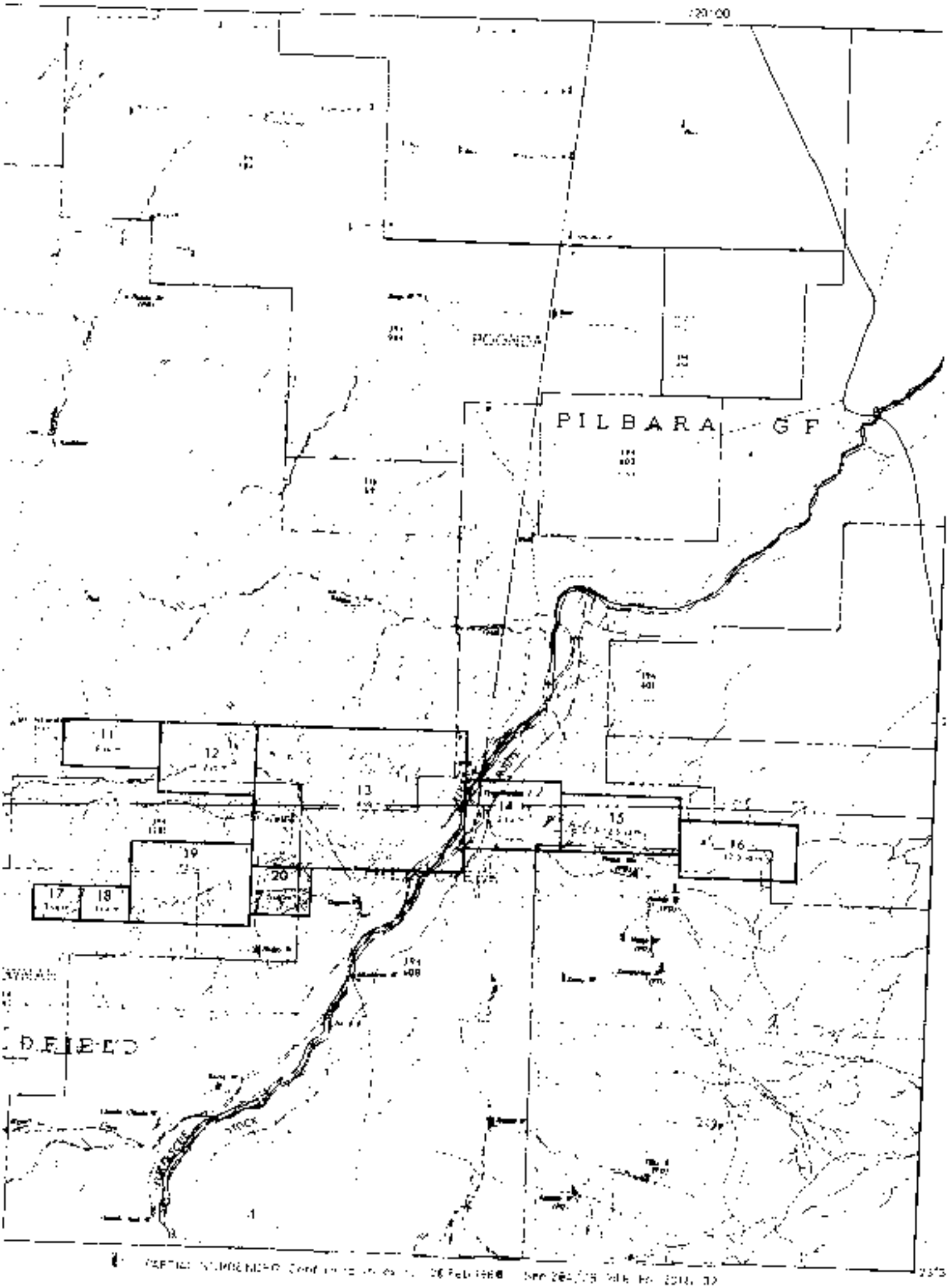
MAP
OF
MINERAL LEASES FOR IRON
HELD BY
MT NEWMAN IRON ORE COMPANY LIMITED

SCALE 1 250,000

THE SCHEDULE ABOVE REFERRED TO:



PARTIAL SURRENDER


PILBARA
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TRANSFERS AND ENCUMBRANCES.

TRANSFER NO. 1488H/79 of 515/1000 undivided shares as tenant in common to SELTRUST MINING CORPORATION PTY. LTD. registered 9.00 am on 21st September, 1979 pursuant to Clause 17 of the Iron Ore (Mt. Newman) Agreement Act 1964 - 1979.

for Principal Registrar
Department of Mines, Perth.

for Minister for Mines

Partial Surrender of the surface rights and so much of the land as is below the natural surface to a depth of 12.19 metres of those portions of the lease as is shown coloured "red" on the diagrams endorsed on the back of the documents of surrender filed at pages 201 and 202 of Mines File 204/79 for the purpose of implementing relevant proposals approved pursuant to the Iron Ore (Mt. Newman) Agreement Act 1964 - 1979 and to give effect to the objects of the Second Variation Agreement scheduled thereto and relevant proposals made thereunder, lodged 9.00 am 13th February, 1980, Confirmed in Executive Council 20th February, 1980.

for Principal Registrar
Department of Mines, Perth

PARTIAL SURRENDER 1118/856 lodged 3.30pm 6 September, 1985 for that portion and interest in the natural surface and so much of the land as is below the natural surface to a depth of 12.19 metres as is shown coloured "red" on the diagram on the reverse side of the partial surrender document.

Amendment 2004H/856 registered 9.00am on 11 September 1985 amending name of "Dampier Mining Company Ltd" to "BHP Minerals Ltd"

Transfer 1628H/89 of 25/25/100 undivided shares as tenants in common to BHP MINERALS LIMITED registered 12.40 pm 6.4.89 pursuant to Clause 19 of the Iron Ore (Mt Newman) Agreement Act 1964.

Partial surrender 1191H/89 lodged 2.45 pm 28.3.89 for that portion and interest in the natural surface and so much of the land as is below the natural surface to a depth of thirty (30) metres as is shown coloured "red" on the diagram attached to the partial surrender document (Perth - Dampier national Highway)

Renewed for a further period of twenty one years expiring on 6th April 2009 pursuant to subsection (1) (a) of section 8 of the Iron Ore (Mt. Newman) Agreement Act.

CONFIRMED IN EXECUTIVE COUNCIL
19th July 1988

GAZETTED
26th August 1988

for DIRECTOR MINING REGISTRATION
DEPARTMENT OF MINES.

TRANSFER 294H/901 of 5/5/100ths undivided shares as tenant in common From Selcast Mining Corporation Pty Ltd to CI MINERALS AUSTRALIA PTY LTD registered 2.50 pm. on 6-8-90, pursuant to Clause 19 of the Iron Ore (Mt. Newman) Agreement Act, 1964.

Partial Surrender 1329H/901 lodged 8.50am on 2.1.91 for that portion of and interest in the natural surface and so much of the land as is below the natural surface to a depth of 46.19 metres as is shown coloured ~~red~~ red on the plan attached to the partial surrender document for the purpose of a proposed aboriginal settlement camp.

Amendment No 2044/890 amending name of Dampier Mining Company Limited to read BHP MINERALS LTD

TRANSFER 1488H/79 of 5/5/100THS undivided shares as tenant in common From Selcast Iron Ore Limited to SELCAST MINING CORPORATION PTY LTD registered 9.000am 21.9.79 pursuant to Clause 19 of the Iron Ore (Mt Newman) Agreement Act 1964.

Partial Surrender 1114H/89 for that portion and interest in the natural surface & so much of the land as is below the natural surface to a depth of 12.19 metres, as is shown coloured red on the diagram on the reverse of the Partial Surrender document. Registered 3.30pm 6.9.89

Conditional Partial Surrender No 1798[M]/901 for that portion and interest in the whole of the land as shown outlined on the plan at page 610 of MF 6813/90 and commonly known as West Walk Sections 4, 5, 6 & 21 and conditionally on application for land comprised in Exploration Licences 46/6 & 47/19 being included as part of Mineral Lease 244SA pursuant to Clause 9A of the Iron Ore (Mt Newman) Agreement Act 1964 lodged 10.00am on 12.3.91

Made absolute on 2.5.91 being the date Exploration Licences 46/6 & 47/19 were included into Mineral Lease 244SA pursuant to Clause 9A of the Agreement Act. (MINES REG'D) as Sections 23 & 22 respectively.

Conditional Partial Surrender 2022[M]/901 for that portion and interest in so much of the land as is below a depth of 12.19 metres as is shown red on the plan attached to the partial surrender document and commonly known as Newman Sections 13 & 20 and conditionally on application for land comprised in Exploration Licences 46/6 & 47/19 being included as part of Mineral Lease 244SA pursuant to Clause 9A of the Iron Ore (Mt Newman) Agreement Act 1964 lodged 2.00pm on 29.4.91.

Made absolute on 2.5.91 being the date Exploration Licences 46/6 & 47/19 were included into Mineral Lease 244SA. pursuant to Clause 9A. of the Agreement Act. (MINES REG'D)

Partial Surrender 2033[M]/901 For that portion of land below a depth of 30 metres from the natural surface as coloured red on the plan attached to the partial surrender document (the land from the surface to a depth of 30 metres having already been surrendered for the purpose of the Perth-Darwin National Highway) Registered 2.00pm on 29.4.91. (MINES REG'D)

Application to Amend No 526[M]/934 registered 11.40am on 21 June 1994 amending names of Mitsui-C Itoh Iron Pty Ltd and Pilbara Iron Limited to read: MITSUI ITOCHU IRON PTY LTD and PILBARA IRON PTY. LTD respectively. (MINES REG'D).

Transfer 120[M]/978 of 30(30/100ths) Undivided shares as tenant in Common. From Pilbara Iron Pty Ltd. to BHP Minerals Pty Ltd registered 11.30am on 25.9.97 pursuant to Clause 19 of the Iron Ore (Mt Newman) Agreement Act 1964. (MINES REG'D)

Application to Amend 659[M]/012 registered 8.30am on 15 February 2002, amending name of BHP Minerals Pty Ltd to read BHP BILLITON MINERALS PTY. LTD (MINES REG'D)

Application to Amend 501[M]/038 registered 4.22 pm on 30 April 2004 amending name of CI Minerals Australia Pty Ltd to read ITOCHU MINERALS & ENERGY OF AUSTRALIA PTY (MINES REG'D)

PTO

RENEWED FOR A FURTHER PERIOD OF 21 YEARS EXPIRING ON 6 APRIL 2030 PURSUANT TO SUBSECTION (1)(a) OF SECTION 8 OF THE IRON ORE (MOUNT NEWMAN) AGREEMENT ACT

CONFIRMED IN EXECUTIVE COUNCIL
1 JULY 2008

GAZETTED
18 JULY 2008

MINERALS REGD

for DIRECTOR MINERALS + TITLES

PARTIAL SURRENDER 21/134 LODGED 2.00pm ON 31 MARCH 2014 FOR THAT PORTION OF LAND "CLEARN" ON THE PLAN ATTACHED TO THE PARTIAL SURRENDER DOCUMENT, TO A DEPTH OF 10 METRES FROM THE NATURAL SURFACE

MINERALS REGD REGISTERED AT 2.00pm ON 31.3.14.

Attachment 1B: ASIC company extracts

ASIC
Australian Securities & Investments Commission

Current Company Extract

Name: BHP BILLITON MINERALS PTY LTD
ACN: 008 694 782

Date/Time: 07 September 2017 AEST 08:31:08 AM

This extract contains information derived from the Australian Securities and Investments Commission's (ASIC) database under section 1274A of the Corporations Act 2001.

Please advise ASIC of any error or omission which you may identify.

EXTRACT

Organisation Details		Document Number
Current Organisation Details		
Name:	BHP BILLITON MINERALS PTY LTD	017398762
ACN:	008 694 782	
ABN:	93008694782	
Registered in:	Western Australia	
Registration date:	22/04/1965	
Next review date:	01/07/2018	
Name start date:	12/10/2001	
Previous state number:	C0650130X	
Status:	Registered	
Company type:	Australian Proprietary Company	
Class:	Limited By Shares	
Subclass:	Proprietary Company	

Address Details		Document Number
Current		
Registered address:	'Brookfield Place' Level 37, 125 St Georges Terrace, PERTH WA 6000	7E6349372
Start date:	15/09/2014	
Principal Place Of Business address:	'Brookfield Place' Level 37, 125 St Georges Terrace, PERTH WA 6000	7E6349372
Start date:	25/08/2014	
Contact Address		
Section 146A of the Corporations Act 2001 states 'A contact address is the address to which communications and notices are sent from ASIC to the company'.		
Address:	Level 14, 480 Queen Street, BRISBANE QLD 4000	
Start date:	24/02/2017	

Officeholders and Other Roles		Document Number
Director		
Name:	EDGAR BAEZ BASTO	7E7767971
Address:	77 Waterford Avenue, WATERFORD WA 6152	
Born:	05/01/1967, MALAGA, COLOMBIA	
Appointment date:	02/03/2016	
Name:	MARGARET MCMAHON BECK	7E8201837
Address:	Unit 3, 461 Adelaide Street, BRISBANE QLD 4000	
Born:	30/12/1962, TUSCON, ARIZONA, UNITED STATES	
Appointment date:	01/10/2013	
Secretary		
Name:	JILL MARGARET BUCKLE	7E8840780
Address:	44 Dell Road, ST LUCIA QLD 4067	
Born:	05/03/1959, LISMORE, NSW	
Appointment date:	01/03/2017	

Name:	TONI ANGELA WILTSHIRE	7E8840780
Address:	38 Maisie Place, EIGHT MILE PLAINS QLD 4113	
Born:	15/06/1967, BRISBANE, QLD	
Appointment date:	01/03/2017	
Name:	NICOLE DE VILLIERS	7E9018449
Address:	14 Aston Court, CARINE WA 6020	
Born:	09/07/1982, DURBAN, SOUTH AFRICA	
Appointment date:	19/04/2017	

Appointed Auditor

Name:	KPMG	026147489
Address:	235 St Georges Terrace PERTH WA 6000	
Start date:	20/05/2003	

Ultimate Holding Company

Name:	BHP BILLITON LIMITED	00869478K
ACN:	004 028 077	
ABN:	49004028077	

Share Information

Share Structure

Class	Description	Number issued	Total amount paid	Total amount unpaid	Document number
ORD	ORDINARY	327164518	5799999959.46	0.00	7E3137789
PREF	PREFERENCE	73200	146400.00	0.00	0E8543006

Members

Note: For each class of shares issued by a proprietary company, ASIC records the details of the top twenty members of the class (based on shareholdings). The details of any other members holding the same number of shares as the twentieth ranked member will also be recorded by ASIC on the database. Where available, historical records show that a member has ceased to be ranked amongst the top twenty members. This may, but does not necessarily mean, that they have ceased to be a member of the company.

Name: BHP BILLITON LIMITED
ACN: 004 028 077
Address: Level 18, 171 Collins Street, MELBOURNE VIC 3000

Class	Number held	Beneficially held	Paid	Document number
ORD	327164518	yes	FULLY	7E7755111

Name: BHP COAL PTY LTD
ACN: 010 595 721
Address: 'Waterfront Place' Level 20, 1 Eagle Street, BRISBANE QLD 4000

Class	Number held	Beneficially held	Paid	Document number
PREF	73200	yes	FULLY	7E2654766

Financial Reports

Balance date	Report due date	AGM due date	Extended AGM due	AGM held date	Outstanding	Document number
31/05/1996					no	011317417
31/05/1997					no	008619715
31/05/1998	30/09/1998			01/09/1998	no	012581715
31/05/1999	30/09/1999				no	015641738
30/06/2000	31/10/2000				no	016676757
30/06/2000	31/10/2000				no	016654622
30/06/2001	31/10/2001				no	017686163
30/06/2002	31/10/2002				no	019119577
30/06/2003	31/10/2003				no	019768965
30/06/2004	31/10/2004				no	020831747
30/06/2005	31/10/2005				no	022426698
30/06/2006	30/11/2006				no	023665718
30/06/2007	31/10/2007				no	024326019
30/06/2008	31/10/2008				no	024945397
30/06/2009	31/10/2009				no	026147489
30/06/2010	31/10/2010				no	7E3265197
30/06/2011	31/10/2011				no	7E4057136
30/06/2012	31/10/2012				no	7E4816440
30/06/2013	31/10/2013				no	7E5613263
30/06/2014	31/10/2014				no	7E6488872
30/06/2015	31/10/2015				no	7E7427517
30/06/2016	31/10/2016				no	7E8482745

Documents

Note: Where no Date Processed is shown, the document in question has not been processed. In these instances care should be taken in using information that may be updated by the document when it is processed. Where the Date Processed is shown but there is a zero under No Pages, the document has been processed but a copy is not yet available.

Date received	Form type	Date processed	Number of pages	Effective date	Document number
08/09/2014	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	08/09/2014	2	22/08/2014	2E0974586
08/09/2014	484 Change To Company Details 484B Change Of Registered Address 484C Change Of Principal Place Of Business (Address)	08/09/2014	2	08/09/2014	7E6349372
31/10/2014	388H (FR 2014) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	31/10/2014	37	30/06/2014	7E6488872
10/04/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	10/04/2015	2	10/04/2015	7E6865006
08/05/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	08/05/2015	2	07/05/2015	2E1809006
11/08/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	11/08/2015	2	11/08/2015	2E2266826
30/09/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	30/09/2015	2	30/09/2015	2E2506625
29/10/2015	388H (FR 2015) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	29/10/2015	33	30/06/2015	7E7427517
04/11/2015	488N Application To Change Review Date Of A Company Or Scheme Synchronise Review Date By Office Holder - No Fee	09/11/2015	8	04/11/2015	028818891
03/03/2016	484A2 Change To Company Details Change Member Name Or Address	03/03/2016	2	03/03/2016	7E7755111
08/03/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	08/03/2016	2	08/03/2016	7E7767971

21/07/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	25/07/2016	2	21/07/2016	7E8179268
22/07/2016	492 Request For Correction	25/07/2016	4	22/07/2016	7E8180920
29/07/2016	484A1 Change To Company Details Change Officeholder Name Or Address	29/07/2016	2	29/07/2016	7E8201837
27/09/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	27/09/2016	2	27/09/2016	7E8385166
31/10/2016	388H (FR 2016) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	31/10/2016	33	30/06/2016	7E8482745
08/03/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	08/03/2017	2	08/03/2017	7E8840780
03/05/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	03/05/2017	2	03/05/2017	7E9018449
29/06/2017	352 Assumption Deed Relating To Class Order	03/07/2017	12	29/06/2017	030043809

*****End of Extract of 5 Pages*****

ASIC
Australian Securities & Investments Commission

Current Company Extract

Name: ITOCHU MINERALS & ENERGY OF AUSTRALIA PTY LTD
ACN: 009 256 259

Date/Time: 07 September 2017 AEST 08:31:07 AM

This extract contains information derived from the Australian Securities and Investments Commission's (ASIC) database under section 1274A of the Corporations Act 2001.

Please advise ASIC of any error or omission which you may identify.

EXTRACT

Organisation Details		Document Number
Current Organisation Details		
Name:	ITOCHU MINERALS & ENERGY OF AUSTRALIA PTY LTD	020193914
ACN:	009 256 259	
ABN:	44009256259	
Registered in:	Western Australia	
Registration date:	30/06/1987	
Next review date:	30/06/2018	
Name start date:	01/04/2004	
Previous state number:	C0824353U	
Status:	Registered	
Company type:	Australian Proprietary Company	
Class:	Limited By Shares	
Subclass:	Proprietary Company	

Address Details		Document Number
Current		
Registered address:	'Forrest Centre' Level 22, 221 St Georges Terrace, PERTH WA 6000	7E1438661
Start date:	23/01/2008	
Principal Place Of Business address:	'Grosvenor Place' Level 31, 225 George Street, SYDNEY NSW 2000	7E5077974
Start date:	25/03/2013	

Officeholders and Other Roles		Document Number
Director		
Name:	AKIHIKO OKADA	7E6000798
Address:	299-4 Kamaya-cyo, Hodogaya-ku, Yokohama-chi, Kanagawa-ken 240-0063, Japan	
Born:	28/02/1960, FUKUOKA, JAPAN	
Appointment date:	01/04/2014	
Name:	KENJI SETO	7E6879228
Address:	2-39-13 Eda-nishi, Aoba-ku, Yokohama, Kanagawa, Japan	
Born:	27/09/1964, OSAKA, JAPAN	
Appointment date:	01/04/2015	
Name:	YASUSHI FUKUMURA	7E7031878
Address:	122 Harborne Street, WEMBLEY WA 6014	
Born:	13/10/1971, HOKKAIDO, JAPAN	
Appointment date:	01/04/2015	
Name:	YUJI TACHIKAWA	7E7922026
Address:	Unit 12, 20-22 Tryon Road, LINDFIELD NSW 2070	
Born:	24/10/1967, NINOMIYA, KANAGAWA, JAPAN	
Appointment date:	01/04/2016	

Name:	NORIO MATSUI	7E7944415
Address:	Eifuku 2-16-44, Suginami-ku, Tokyo, Japan	
Born:	28/11/1963, TOKYO, JAPAN	
Appointment date:	01/05/2016	
Name:	HIRONOBU NII	7E8807868
Address:	Unit 20B, 161 Kent Street, SYDNEY NSW 2000	
Born:	04/03/1970, YOKOHAMA, JAPAN	
Appointment date:	01/02/2017	
Name:	SHUZABURO TSUCHIHASHI	7E8961101
Address:	'2103 Highgate Building', 127-153 Kent Street, MILLERS POINT NSW 2000	
Born:	28/03/1962, WAKAYAMA, JAPAN	
Appointment date:	01/04/2012	
Name:	JUN INOMATA	7E8963477
Address:	6-2-47 Miyazahi,, Miyamae-ku, Kawasaki, Kanagawa 216-0033, Japan	
Born:	12/09/1965, KANAGAWA, JAPAN	
Appointment date:	01/04/2017	
Name:	YOSHIHIKO OGURA	7E9031376
Address:	Unit 37, 82 Boundary Street, BRISBANE CITY QLD 4000	
Born:	15/05/1969, TOKYO, JAPAN	
Appointment date:	01/04/2017	

Secretary

Name:	HIRONOBU NII	7E8807868
Address:	Unit 20B, 161 Kent Street, SYDNEY NSW 2000	
Born:	04/03/1970, YOKOHAMA, JAPAN	
Appointment date:	01/02/2017	

Appointed Auditor

Name:	DELOITTE TOUCHE TOHMATSU	023408301
Address:	Grosvenor Place 225 George Street SYDNEY NSW 2000	
Start date:	31/03/2004	

Ultimate Holding Company

Name:	ITOCHU CORPORATION	007336721
ARBN:	010 144 895	
ABN:	66010144895	

Share Information

Share Structure

Class	Description	Number issued	Total amount paid	Total amount unpaid	Document number
ORD	ORDINARY SHARES	28873846	164174518.00	0.00	025545750
REDP	REDEEMABLE PREFERENCE	25476923	112790308.00	0.00	025545750

Members

Note: For each class of shares issued by a proprietary company, ASIC records the details of the top twenty members of the class (based on shareholdings). The details of any other members holding the same number of shares as the twentieth ranked member will also be recorded by ASIC on the database. Where available, historical records show that a member has ceased to be ranked amongst the top twenty members. This may, but does not necessarily mean, that they have ceased to be a member of the company.

Name: ITOCHU CORPORATION
ARBN: 010 144 895
Address: 5-1 Kita-aoyama 2-chome Minato-ku Tokyo, Japan

Class	Number held	Beneficially held	Paid	Document number
ORD	27805897	yes	FULLY	021090268

Name: ITOCHU AUSTRALIA LTD.
ACN: 000 192 790
Address: 'Grosvenor Place' Level 31, 225 George Street, SYDNEY NSW 2000

Class	Number held	Beneficially held	Paid	Document number
ORD	1067949	yes	FULLY	7E5323451

Name: ITOCHU CORPORATION
ARBN: 010 144 895
Address: 5-1 Kita-aoyama 2-chome Minato-ku Tokyo, Japan

Class	Number held	Beneficially held	Paid	Document number
REDP	24534615	yes	FULLY	021090268

Name: ITOCHU AUSTRALIA LTD.
ACN: 000 192 790
Address: 'Grosvenor Place' Level 31, 225 George Street, SYDNEY NSW 2000

Class	Number held	Beneficially held	Paid	Document number
REDP	942308	yes	FULLY	7E5323451

Financial Reports

Balance date	Report due date	AGM due date	Extended AGM due	AGM held date	Outstanding	Document number
31/03/1998	31/07/1998			03/07/1998	no	014651538
31/03/1999	31/07/1999			07/07/1999	no	015588128
31/03/2000	31/07/2000				no	016553986
31/03/2001	31/07/2001			11/07/2001	no	017240374
31/03/2002	31/07/2002				no	018422280
31/03/2003	31/07/2003				no	019460441
31/03/2004	31/07/2004				no	020694011
31/03/2005	31/07/2005			14/12/2005	no	022692806
31/03/2006	31/08/2006				no	023408301
31/03/2007	31/07/2007				no	024338010
31/03/2008	31/07/2008				no	7E1952629
31/03/2009	31/07/2009				no	7E2661210
31/03/2010	31/07/2010				no	7E3422077
31/03/2011	31/07/2011				no	7E4070343
31/03/2012	31/07/2012				no	7E4824057
31/03/2013	31/07/2013				no	7E5617744
31/03/2014	31/07/2014				no	7E6476591
31/03/2015	31/07/2015				no	7E7412192
31/03/2016	31/07/2016				no	7E8571941

Documents

Note: Where no Date Processed is shown, the document in question has not been processed. In these instances care should be taken in using information that may be updated by the document when it is processed. Where the Date Processed is shown but there is a zero under No Pages, the document has been processed but a copy is not yet available.

Date received	Form type	Date processed	Number of pages	Effective date	Document number
02/10/2014	484A1 Change To Company Details Change Officeholder Name Or Address	02/10/2014	2	02/10/2014	7E6414857
28/10/2014	388H (FR 2014) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	28/10/2014	62	31/03/2014	7E6476591
16/04/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	16/04/2015	3	16/04/2015	7E6879228

12/06/2015	484A1 Change To Company Details Change Officeholder Name Or Address	12/06/2015	2	12/06/2015	7E7031878
24/06/2015	484A1 Change To Company Details Change Officeholder Name Or Address	24/06/2015	2	24/06/2015	7E7068171
17/07/2015	484A1 Change To Company Details Change Officeholder Name Or Address	17/07/2015	2	17/07/2015	7E7140480
14/08/2015	484A1 Change To Company Details Change Officeholder Name Or Address	14/08/2015	2	14/08/2015	7E7215606
26/10/2015	388H (FR 2015) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	26/10/2015	62	31/03/2015	7E7412192
04/04/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	04/04/2016	2	04/04/2016	7E7843078
04/04/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	04/04/2016	2	04/04/2016	7E7843093
04/04/2016	484A1 Change To Company Details Change Officeholder Name Or Address	04/04/2016	2	04/04/2016	7E7843105
02/05/2016	484A1 Change To Company Details Change Officeholder Name Or Address	02/05/2016	2	02/05/2016	7E7922026
02/05/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	02/05/2016	2	02/05/2016	7E7922035
10/05/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	10/05/2016	2	10/05/2016	7E7944415
29/11/2016	388H (FR 2016) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	29/11/2016	65	31/03/2016	7E8571941
08/12/2016	484A1 Change To Company Details Change Officeholder Name Or Address	08/12/2016	2	08/12/2016	7E8600142
08/12/2016	484A1 Change To Company Details Change Officeholder Name Or Address	08/12/2016	2	08/12/2016	7E8600192
08/12/2016	484A1 Change To Company	08/12/2016	2	08/12/2016	7E8600216

	Details Change Officeholder Name Or Address				
10/02/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	10/02/2017	2	10/02/2017	7E8758217
10/02/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	10/02/2017	2	10/02/2017	7E8758362
10/02/2017	484A1 Change To Company Details Change Officeholder Name Or Address	10/02/2017	2	10/02/2017	7E8758501
10/02/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	10/02/2017	2	10/02/2017	7E8758855
27/02/2017	484A1 Change To Company Details Change Officeholder Name Or Address	27/02/2017	2	27/02/2017	7E8807868
22/03/2017	484A1 Change To Company Details Change Officeholder Name Or Address	22/03/2017	2	22/03/2017	7E8896895
11/04/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	11/04/2017	3	11/04/2017	7E8961057
11/04/2017	484A1 Change To Company Details Change Officeholder Name Or Address	11/04/2017	2	11/04/2017	7E8961101
12/04/2017	484A1 Change To Company Details Change Officeholder Name Or Address	12/04/2017	2	12/04/2017	7E8963477
08/05/2017	484A1 Change To Company Details Change Officeholder Name Or Address	08/05/2017	2	08/05/2017	7E9031376

*****End of Extract of 6 Pages*****

ASIC
Australian Securities & Investments Commission

Current Company Extract

Name: MITSUI IRON ORE CORPORATION PTY. LTD.
ACN: 050 157 456

Date/Time: 07 September 2017 AEST 08:31:05 AM

This extract contains information derived from the Australian Securities and Investments Commission's (ASIC) database under section 1274A of the Corporations Act 2001.

Please advise ASIC of any error or omission which you may identify.

EXTRACT

Organisation Details		Document Number
Current Organisation Details		
Name:	MITSUI IRON ORE CORPORATION PTY. LTD.	002682319
ACN:	050 157 456	
ABN:	16050157456	
Registered in:	Western Australia	
Registration date:	21/09/1990	
Next review date:	21/09/2017	
Name start date:	21/09/1990	
Previous state number:	C1004629X	
Status:	Registered	
Company type:	Australian Proprietary Company	
Class:	Limited By Shares	
Subclass:	Proprietary Company	

Address Details		Document Number
Current		
Registered address:	'Exchange Tower' Level 25, 2 The Esplanade, PERTH WA 6000	7E6807982
Start date:	25/03/2015	
Principal Place Of Business address:	'Exchange Tower' Level 25, 2 The Esplanade, PERTH WA 6000	7E6807982
Start date:	01/03/2015	

Officeholders and Other Roles		Document Number
Director		
Name:	SHIGERU ARAKI	7E4798486
Address:	Unit 165, 181 Adelaide Terrace, EAST PERTH WA 6004	
Born:	21/02/1961, KYOTO, JAPAN	
Appointment date:	01/07/2012	
Name:	MASARU KOBAYASHI	7E6912212
Address:	15A Windsor Avenue, BENTLEIGH VIC 3204	
Born:	04/09/1973, NAGASAKI, JAPAN	
Appointment date:	01/04/2015	
Name:	TAKAYUKI TSUCHIDA	7E7844715
Address:	1-18-1-507 Gohongi, Meguro-ku, Tokyo 153-0053, Japan	
Born:	07/05/1974, TOKYO, JAPAN	
Appointment date:	02/04/2016	
Alternate Director		
Name:	GAVIN PETER PATTERSON	7E4639047
Address:	30 Sandgate Street, SOUTH PERTH WA 6151	
Born:	31/10/1966, SUBIACO, WA	
Appointment date:	01/08/2012	

Name:	SHINSUKE SATO	7E8991741
Address:	Unit 54, 98 Terrace Road, EAST PERTH WA 6004	
Born:	29/06/1980, CHICAGO, ILLINOIS, UNITED STATES	
Appointment date:	01/04/2015	
Name:	SHU TANAKA	7E9110684
Address:	4-2-16 Shin-ishikawa Aobaku, Yokohama City, Kanagawa 225-0003, Japan	
Born:	11/06/1965, TOTTORI, JAPAN	
Appointment date:	22/05/2017	

Secretary

Name:	GAVIN PETER PATTERSON	020677802
Address:	30 Sandgate Street, SOUTH PERTH WA 6151	
Born:	31/10/1966, SUBIACO, WA	
Appointment date:	29/10/2004	

Appointed Auditor

Name:	DELOITTE TOUCHE TOHMATSU	7E8158202
Address:	'Brookfield Place Tower 2' 123 St Georges Terrace PERTH WA 6000	
Start date:	01/04/1995	
Name:	DELOITTE TOUCHE TOHMATSU	7E8158202
Address:	'Brookfield Place Tower 2' 123 St Georges Terrace PERTH WA 6000	
Start date:	24/10/1995	

Ultimate Holding Company

Name:	MITSUI & CO LTD	002682319
ARBN:	001 855 465	
ABN:	88001855465	

Share Information

Share Structure

Class	Description	Number issued	Total amount paid	Total amount unpaid	Document number
ORD	ORDINARY SHARES	8000000	8000000.00	0.00	002682319

Members

Note: For each class of shares issued by a proprietary company, ASIC records the details of the top twenty members of the class (based on shareholdings). The details of any other members holding the same number of shares as the twentieth ranked member will also be recorded by ASIC on the database. Where available, historical records show that a member has ceased to be ranked amongst the top twenty members. This may, but does not necessarily mean, that they have ceased to be a member of the company.

Name:	MITSUI & CO. MINERAL RESOURCES DEVELOPMENT PTY LTD
ACN:	160 296 462
Address:	C/- MITSUI IRON ORE DEVELOPMENT P/L EXCHANGE TOWER, Level 26, 2 The Esplanade, PERTH WA 6000

Class	Number held	Beneficially held	Paid	Document number
ORD	6400000	yes	FULLY	7E6808451

Name: MITSUI & CO. (AUSTRALIA) LTD.
ACN: 004 349 795
Address: Level 15, 120 Collins Street, MELBOURNE VIC 3000

Class	Number held	Beneficially held	Paid	Document number
ORD	1600000	yes	FULLY	7E7203416

Financial Reports

Balance date	Report due date	AGM due date	Extended AGM due	AGM held date	Outstanding	Document number
31/03/1997					no	012109072
31/03/1998	31/07/1998				no	013897314
31/03/1999	31/07/1999			29/06/1999	no	012110722
31/03/2000	31/07/2000			07/07/2000	no	016646288
31/03/2001	31/07/2001			05/07/2001	no	017122473
31/03/2002	31/07/2002				no	018381095
31/03/2003	31/07/2003				no	019799258
31/03/2004	31/07/2004			13/12/2004	no	020855966
31/03/2005	31/07/2005			14/11/2005	no	022449627
31/03/2006	31/08/2006				no	023501204
31/03/2007	31/07/2007				no	024137309
31/03/2008	31/07/2008				no	7E1821124
31/03/2009	31/07/2009				no	7E2723431
31/03/2010	31/07/2010				no	7E3155001
31/03/2011	31/07/2011				no	7E3925653
31/03/2012	31/07/2012				no	7E4690038
31/03/2013	31/07/2013				no	7E5513387
31/03/2014	31/07/2014				no	7E6384461
31/03/2015	31/07/2015				no	7E7288468
31/03/2016	31/07/2016				no	7E8158202
31/03/2017	31/07/2017				no	7E9245398

Documents

Note: Where no Date Processed is shown, the document in question has not been processed. In these instances care should be taken in using information that may be updated by the document when it is processed. Where the Date Processed is shown but there is a zero under No Pages, the document has been processed but a copy is not yet available.

Date received	Form type	Date processed	Number of pages	Effective date	Document number
22/09/2014	388H (FR 2014) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	22/09/2014	39	31/03/2014	7E6384461
17/12/2014	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	17/12/2014	3	17/12/2014	7E6605548
08/01/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	08/01/2015	2	08/01/2015	7E6638406
18/03/2015	484 Change To Company Details 484B Change Of Registered Address 484C Change Of Principal Place Of Business (Address)	18/03/2015	2	18/03/2015	7E6807982
18/03/2015	484A2 Change To Company Details Change Member Name Or Address	18/03/2015	2	18/03/2015	7E6808267
18/03/2015	484A2 Change To Company Details Change Member Name Or Address	18/03/2015	2	18/03/2015	7E6808451
16/04/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	16/04/2015	2	16/04/2015	7E6879781
16/04/2015	484A1 Change To Company Details Change Officeholder Name Or Address	16/04/2015	2	16/04/2015	7E6881069
16/04/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	17/04/2015	2	16/04/2015	7E6881319
16/04/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	16/04/2015	2	16/04/2015	7E6881329
16/04/2015	484E Change To Company Details Appointment Or	16/04/2015	3	16/04/2015	7E6881337

	Cessation Of A Company Officeholder				
29/04/2015	484A1 Change To Company Details Change Officeholder Name Or Address	29/04/2015	2	29/04/2015	7E6912212
10/08/2015	484A2 Change To Company Details Change Member Name Or Address	10/08/2015	2	10/08/2015	7E7203416
09/09/2015	388H (FR 2015) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	09/09/2015	37	31/03/2015	7E7288468
23/12/2015	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	23/12/2015	2	23/12/2015	7E7584379
04/01/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	04/01/2016	2	04/01/2016	7E7592407
05/04/2016	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	05/04/2016	3	05/04/2016	7E7844715
14/07/2016	388H (FR 2016) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	14/07/2016	36	31/03/2016	7E8158202
22/09/2016	484A1 Change To Company Details Change Officeholder Name Or Address	22/09/2016	2	22/09/2016	7E8371043
24/04/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	24/04/2017	2	24/04/2017	7E8991507
24/04/2017	484A1 Change To Company Details Change Officeholder Name Or Address	24/04/2017	2	24/04/2017	7E8991741
01/06/2017	484E Change To Company Details Appointment Or Cessation Of A Company Officeholder	01/06/2017	3	01/06/2017	7E9110684
11/07/2017	388H (FR 2017) Financial Report Financial Report - Large Proprietary Company That Is Not A Disclosing Entity	11/07/2017	36	31/03/2017	7E9245398

*****End of Extract of 5 Pages*****

Attachment 1C: Authorisation to act as representative of the occupier

Not Required.

Attachment 2A: Figure 1: Whaleback Hub – Regional Overview (WB_002WA_001_RevA_0)

Legend

Whaleback Licence Boundary (L4503/1975/14) (Pending)

Key Infrastructure

- OHP2
- OHP3
- OHP4
- OHP5
- Car Dumper

PORT HEDLAND

NEWMAN

Whaleback Mine

Orebody 30

Orebody 35

Orebody 29

Tailings Dam

Newman

Newman to Port Hedland Mainline

0 2 4 6 8

Kilometers

BHP

ENVIRONMENT A&I

N

WHALEBACK HUB

REGIONAL OVERVIEW

SCALE (A3): 1:60,000	DATUM: GDA94/MGA 50	**FIGURE 1**
Prepared: Chris Hopkins	Revision: FINAL	
Centre: Perth	Date: 08 November 2019	Dwg: MWB_002WA_001_RevA_0

768000 770000 772000 774000 776000 778000 780000 782000 784000 786000 788000 790000

7422000 7420000 7418000 7416000 7414000 7412000 7410000 7408000 7406000

Attachment 2B: Location of Proposed Whaleback Upgrades

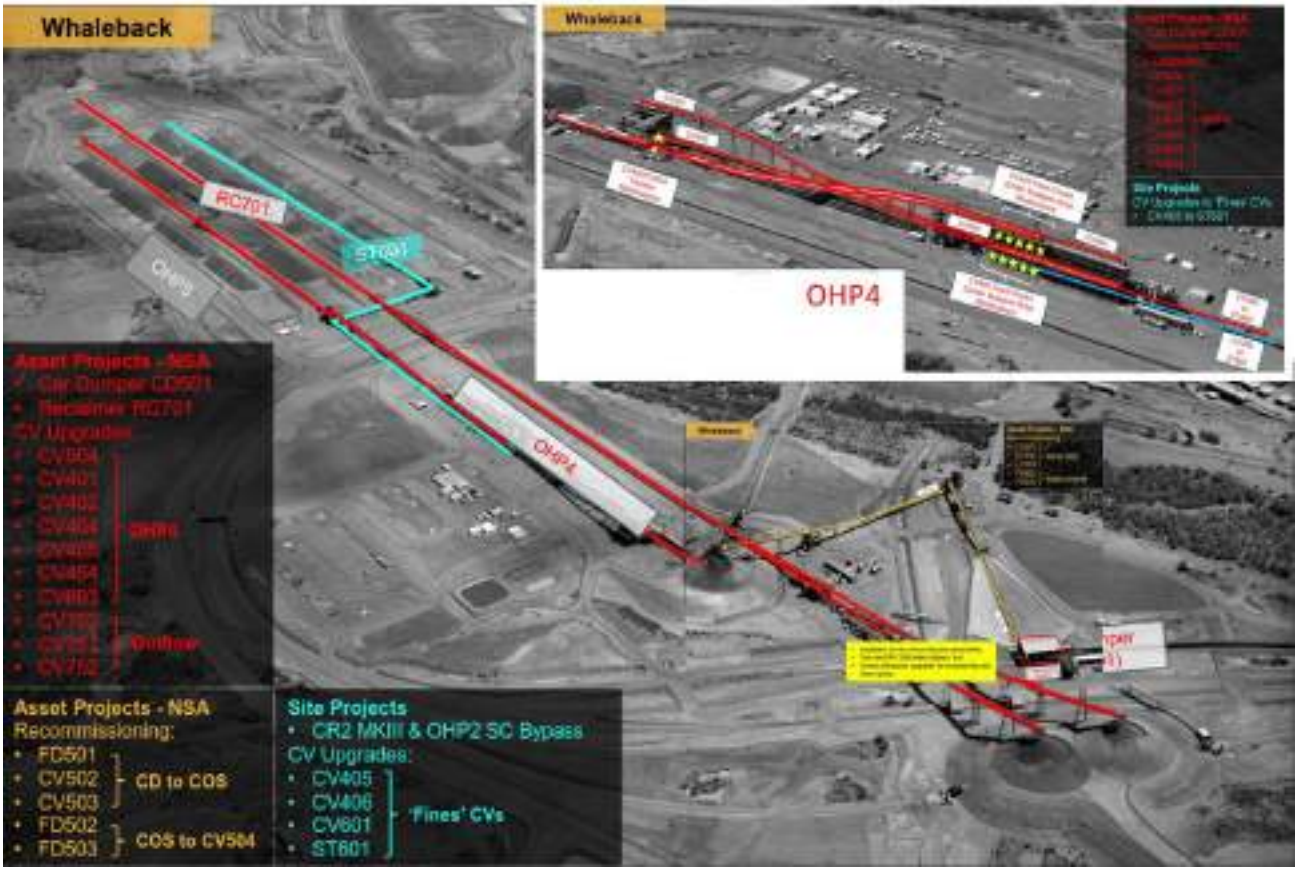

Plate 1: Ore Handling Plant 4 and Car Dumper Upgrades

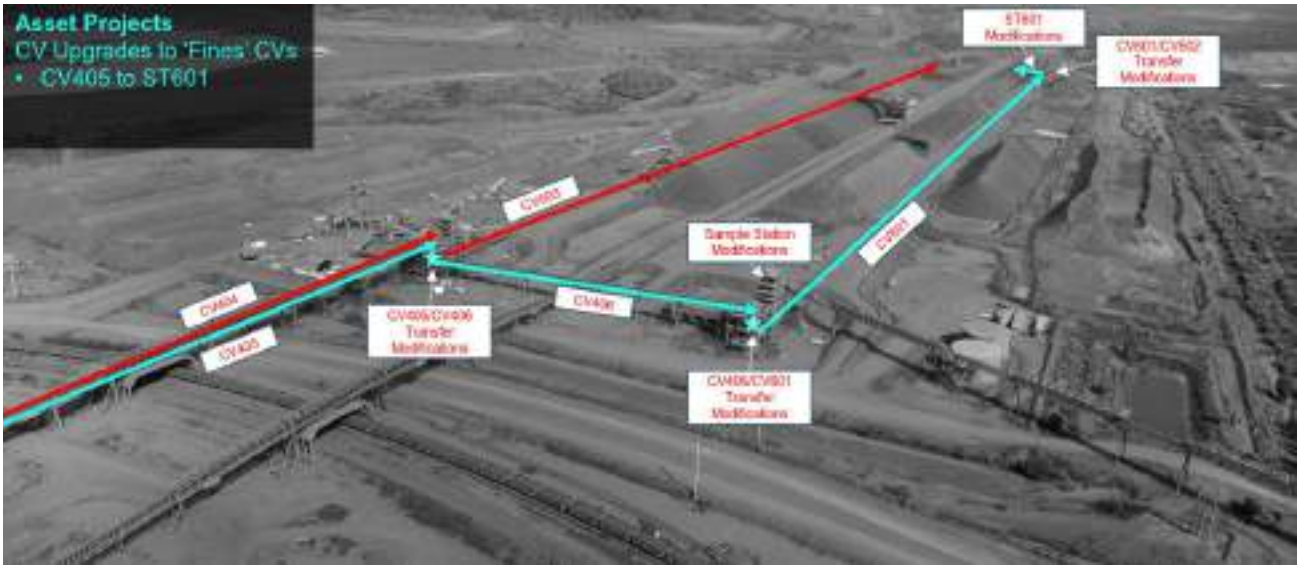

Plate 2: Ore Handling Plant 4 Fines Conveyor Upgrades

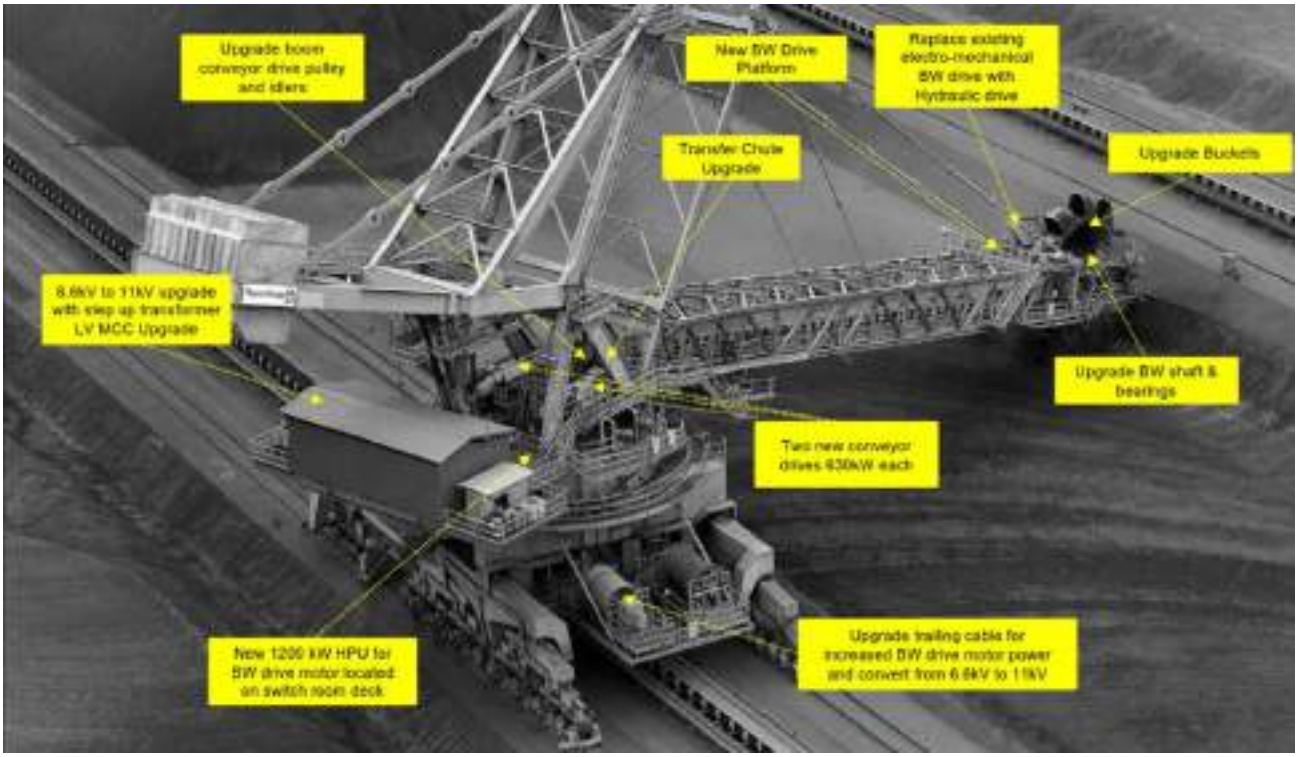

Plate 3: Reclaimer Upgrades

Attachment 2C: Prescribed Premises Map Coordinates

Coordinates are in GDA 1994 MGA Zone 50.

Easting	Northing
779513.71	7417827.58
779470.28	7415531.20
778814.47	7415543.48
778458.11	7415199.77
778456.43	7415110.05
778102.77	7415116.72
778077.29	7413765.48
778073.62	7413765.32
777904.82	7413790.52
777887.23	7413793.15
777894.69	7413861.37
777880.64	7413863.19
777775.48	7413876.82
777745.68	7413860.27
777734.64	7413835.98
777601.63	7413858.76
777573.49	7413863.58
777487.40	7413830.46
777487.40	7413830.42
777502.85	7413720.09
777717.52	7413685.89
777690.39	7413494.10
777679.31	7413406.76
777703.74	7413403.74
777830.67	7413432.44
778039.51	7413418.30
778066.09	7413416.50
778070.69	7413415.09
778054.88	7412576.53
778066.81	7412572.72
778076.24	7412569.70
778171.18	7412539.37
778244.52	7412515.94
778275.69	7412505.98
778322.93	7412497.24
778362.60	7412491.81
778407.10	7412493.96
778415.15	7412494.35
778421.17	7412494.64
778435.11	7412490.08
778562.63	7412448.36
778614.16	7412431.51
778646.91	7412420.79
778756.40	7412384.97
778764.66	7412382.27
778828.33	7412361.44

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
778914.77	7412334.02
779040.58	7412294.10
779309.00	7412208.95
779410.14	7412176.86
779688.45	7412088.57
779799.08	7412053.47
779822.79	7412042.59
780018.09	7411952.92
780147.89	7411893.32
780489.58	7411736.44
780539.67	7411713.44
780622.09	7411675.60
780948.36	7411530.14
781010.14	7411502.60
781394.47	7411331.25
781491.59	7411287.95
781499.32	7411284.5
781624.79	7411226.03
781779.47	7411153.95
781988.18	7411056.68
782030.42	7411037.00
782113.24	7411000.86
782423.16	7410865.65
782531.79	7410818.25
782628.03	7410776.26
782839.08	7410683.20
782933.81	7410641.44
783347.40	7410459.07
783368.49	7410449.77
783422.88	7410425.79
783810.77	7410249.45
783927.05	7410196.58
784032.77	7410148.52
784036.55	7410147.07
784072.04	7410133.38
784221.56	7410075.73
784240.40	7410068.46
784255.72	7410062.56
784265.93	7410060.82
784273.29	7410059.57
784478.28	7410024.77
784499.10	7410013.18
784548.17	7409985.85
784633.49	7409938.33
784785.30	7409853.78
784849.92	7409831.58
784877.47	7409822.11
784965.28	7409791.94

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
785183.96	7409716.80
785257.15	7409785.59
785259.35	7409787.65
785250.97	7409825.76
785245.83	7409849.13
785243.68	7409858.90
785230.06	7409920.85
785239.85	7409993.83
785262.59	7410163.46
785271.92	7410233.02
785277.12	7410271.81
785284.85	7410329.43
785320.75	7410600.08
785363.26	7410945.83
785323.58	7411320.87
785338.70	7411493.75
785386.65	7411900.45
785392.55	7411950.50
785432.22	7412210.76
785456.88	7412296.81
785607.93	7412823.86
785832.39	7413521.51
785909.85	7413726.50
786068.75	7413982.99
786139.10	7414046.45
786300.20	7414191.76
786579.94	7414298.56
786680.78	7414337.06
786736.28	7414358.25
786905.57	7414422.88
787119.23	7414504.45
787217.13	7414542.73
787789.45	7414766.53
787905.59	7414811.94
788466.35	7415032.06
788778.33	7415229.22
789143.50	7415460.00
789503.00	7415690.91
789532.6	7415709.93
789606.77	7415757.57
789638.01	7415721.63
789692.48	7415658.95
789853.81	7415473.33
789939.30	7415374.97
789919.09	7415359.48
789891.71	7415338.49
789771.71	7415246.50
789701.51	7415323.70

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
789505.14	7415539.64
789468.47	7415579.97
789071.70	7415333.41
788778.33	7415157.42
788489.02	7414983.88
788410.87	7414951.32
787829.07	7414708.97
787080.64	7414419.49
786337.98	7414132.25
786239.43	7414035.04
786130.15	7413927.25
786125.23	7413919.59
785979.76	7413693.44
785908.91	7413504.50
785896.29	7413464.55
785860.70	7413351.85
785689.18	7412808.75
785516.28	7412193.05
785473.79	7411973.18
785454.32	7411801.23
785400.30	7411324.19
785398.21	7411305.76
785435.56	7410946.83
785318.86	7409913.30
785364.21	7409758.37
785363.14	7409757.49
785336.95	7409735.76
785197.94	7409620.45
785103.92	7409650.18
784604.65	7409808.10
784591.64	7409812.22
784494.99	7409807.52
784397.04	7409802.77
784238.33	7409888.74
784191.48	7409988.87
784090.82	7410034.20
783594.53	7410264.66
783256.62	7410422.01
782606.30	7410723.36
782089.64	7410940.82
781703.75	7411118.26
781605.97	7411163.23
781342.29	7411284.47
781334.00	7411288.28
780589.85	7411639.91
780584.30	7411642.54
780256.08	7411795.42
779835.93	7411991.12

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
779508.10	7412099.72
779323.14	7412160.99
779185.84	7412206.48
779174.72	7412210.16
779017.83	7412262.13
778983.26	7412273.58
778948.76	7412284.78
778921.48	7412293.63
778736.26	7412353.73
778586.11	7412402.44
778415.50	7412457.80
778406.53	7412457.18
778406.41	7412457.17
778390.08	7412456.04
778352.70	7412453.45
778348.46	7412453.16
778311.64	7412464.84
778054.31	7412546.53
778016.77	7410554.76
778014.09	7410398.86
776799.83	7410422.92
776774.56	7409077.43
773273.49	7409142.97
772931.95	7409149.11
772532.04	7409156.58
772129.57	7409164.07
772134.17	7409413.36
772138.78	7409663.45
772143.40	7409913.55
772148.01	7410163.63
772150.72	7410310.49
772150.71	7410310.49
772129.67	7410310.22
772129.47	7410310.22
771957.95	7410308.08
771159.02	7410298.08
770529.12	7410450.11
770520.52	7410452.19
769872.04	7410608.70
769850.88	7410706.53
769534.05	7410712.41
766747.30	7410762.65
766791.00	7413171.49
766874.20	7413170.70
766877.64	7413354.40
766882.32	7413604.50
766887.00	7413854.49
766891.67	7414104.47

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
766896.35	7414354.46
766901.02	7414604.44
766905.70	7414854.42
766910.37	7415104.41
766915.05	7415354.39
766919.72	7415604.39
766924.40	7415854.39
766929.07	7416104.39
766933.74	7416354.39
766938.41	7416604.4
766947.76	7417104.41
766957.10	7417604.41
766966.97	7418132.43
767162.41	7418124.55
767540.41	7418109.30
767940.41	7418093.17
768340.42	7418077.03
768740.42	7418060.90
769140.42	7418044.77
769540.43	7418028.63
769940.44	7418012.50
770340.44	7417996.36
771040.44	7417968.13
771940.44	7417937.04
772740.45	7417923.44
773940.48	7417903.04
775140.52	7417882.64
775287.56	7417880.14
779513.71	7417827.58
776778.55	7415778.56
776891.19	7415640.23
776943.61	7415682.76
776956.62	7415668.99
776976.47	7415683.38
777006.00	7415647.30
776994.46	7415637.90
777024.40	7415601.71
777114.30	7415493.02
777136.46	7415524.11
777155.97	7415548.26
777174.82	7415569.09
777205.58	7415600.84
777229.06	7415623.00
777243.72	7415636.69
777341.18	7415728.69
777349.45	7415734.79
777356.72	7415740.74
777370.28	7415750.00

Newman Operations – Whaleback Hub Newman Stretch Assist

Easting	Northing
777391.45	7415762.57
777410.30	7415775.14
777431.14	7415790.68
777446.35	7415804.57
777398.48	7415860.20
777200.14	7416090.66
777139.92	7416160.62
777050.87	7416090.66
776964.46	7416022.76
776953.88	7416014.45
776968.94	7415995.89
776968.00	7415995.19
776921.31	7415955.57
776944.65	7415920.83
776778.55	7415778.56

Attachment 2D: Contaminated Sites within L4503/1975/14

BHP Code	Site Description	Status
WB01	Whaleback General Landfill	No investigation
WB02	Whaleback asbestos waste disposal area	DSI (In progress)
WB03	Whaleback bioremediation landfarm	DSI (In progress)
WB04	Whaleback No. 1 secondary crusher sump	DSI
WB05	Whaleback No. 2 primary crusher sumps	DSI
WB06	Whaleback No. 2 secondary crusher sumps	No investigation
WB07	Whaleback ANFO fuelling facility	DSI (2005)
WB08	Whaleback ANFO storage facility (old)	DSI (In progress)
WB09	Whaleback diesel distribution pipeline	RAP
WB10	Condition Monitoring Yard	DSI (In progress)
WB10a	Whaleback checkpoint refuelling facilities	VAR (2016)
WB11	Whaleback surface drainage network	VAR (2016)
WB12	Whaleback ponderosa workshop facilities	VAR-(in preparation)
WB13	Whaleback overburden storage areas	No investigation
WB14	Whaleback pit	No investigation
WB18	Whaleback fuelfarm next to rail tanker unloading facility	SAQP (2019)
WB19	Whaleback former power station open drains	No investigation
WB20	Whaleback former power station site	SAQP (April 2019) & HRA (August 2019)
WB21	Whaleback ARD Dam and evaporation ponds	PSI (2013)
WB22	Whaleback former asbestos waste disposal area	DSI
WB23	Newman water treatment plant	DSI
WB24	Whaleback Ampress Facility	DSI (In progress)
WB25	Whaleback Rail Loop Ponds	DSI (In progress)
WB26	Newman fire training ground - OB29	SAQP (2019)
WB27	BIOMAX * 7 sites (Front gate, Ponderossa, Hub, Bene Plant, Dyno Facility, New Lab and Rabbit Flats)	Course Investigation Completed
WB28	Whaleback Stacker 1 and 2 PCB	Course Investigation Completed
WB29	Rabbit Flats Park Up	DSI
WB30	Whaleback - Warehouse (old)	No investigation
WB31	MWB - Mobile Equipment Workshop	No investigation
WB32	WB Rail Hub Area	No investigation
WB33	Fire Training Ground SP07	DSI (In progress)

Attachment 3A: Proposed Activities

See Sections 1 to 6 and Attachment 2B.

Attachment 3B: Map of Area Proposed to be cleared

Not required

Attachment 3C: Additional information for clearing assessment

Not required

Attachment 4: Biodiversity Surveys

Not required

Attachment 5A: Other Approvals: Ministerial Statement 963 (Orebodies 29, 30 and 35 BWT)

Published on: 18 March 2014 Statement No: 963

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE *ENVIRONMENTAL PROTECTION ACT 1986)*

OREBODY 29/30/35 MINING BELOW WATERTABLE

Proposal: The proposal is to extend the mining of the existing approved above watertable Orebody 29, 30, and 35 mines located approximately 7 km west-south-west of Newman, in the Shire of East Pilbara, to below the watertable and discharge any excess dewatering from these three orebodies into Ophthalmia Dam.

Proponent: BHP Billiton Iron Ore Pty Ltd
Australian Company Number 008 700 981

Proponent Address: Level 1
125 St Georges Terrace
PERTH WA 6000

Assessment Number: 1982

Report of the Environmental Protection Authority Number: 1501

This Statement authorises the implementation of the proposal described and documented in Columns 1 and 2 of Table 2 of Schedule 1. The implementation of the proposal is subject to the following implementation conditions and procedures and Schedule 2 details definitions of terms and phrases used in the implementation conditions and procedures.

1 Proposal Implementation

1-1 When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Column 3 of Table 2 in Schedule 1, unless amendments to the proposal and the authorised extent of the proposal has been approved under the EP Act.

2 Contact Details

2-1 The proponent shall notify the CEO of any change of its name, physical address or postal address for the serving of notices or other correspondence within 28 days of such change. Where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State.

3 Time Limit for Proposal Implementation

3-1 The proponent shall not commence implementation of the proposal after the expiration of five (5) years from the date of this Statement, and any commencement, within this five (5) year period, must be substantial.

3-2 Any commencement of implementation of the proposal, within five (5) years from the date of this Statement, must be demonstrated as substantial by providing the CEO with written evidence, on or before the expiration of five (5) years from the date of this Statement.

4 Compliance Reporting

4-1 The proponent shall prepare and maintain a compliance assessment plan to the satisfaction of the CEO.

4-2 The proponent shall submit to the CEO the compliance assessment plan required by condition 4-1 at least six months prior to the first compliance assessment report required by condition 4-6, or prior to implementation, whichever is sooner.

The compliance assessment plan shall indicate:

(1) the frequency of compliance reporting;

(2) the approach and timing of compliance assessments;

(3) the retention of compliance assessments;

(4) the method of reporting of potential non-compliances and corrective actions taken;

(5) the table of contents of compliance assessment reports; and

(6) public availability of compliance assessment reports.

4-3 The proponent shall assess compliance with conditions in accordance with the compliance assessment plan required by condition 4-1.

4-4 The proponent shall retain reports of all compliance assessments described in the compliance assessment plan required by condition 4-1 and shall make those reports available when requested by the CEO.

4-5 The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that potential non-compliance being known.

4-6 The proponent shall submit to the CEO the first compliance assessment report fifteen (15) months from the date of issue of this Statement addressing the twelve (12) month period from the date of issue of this Statement and then annually from the date of submission of the first compliance assessment report.

The compliance assessment report shall:

(1) be endorsed by the proponent's Managing Director or a person delegated to sign on the Managing Director's behalf;

(2) include a statement as to whether the proponent has complied with the conditions;

(3) identify all potential non-compliances and describe corrective and preventative actions taken;

(4) be made publicly available in accordance with the approved compliance assessment plan; and

(5) indicate any proposed changes to the compliance assessment plan required by condition 4-1.

5 Public Availability of Data

5-1 Subject to condition 5-2, within a reasonable time period approved by the CEO of the issue of this statement and for the remainder of the life of the proposal the proponent shall make publicly available, in a manner approved by the CEO, all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products (e.g. maps)) relevant to the assessment of this proposal and implementation of this Statement.

5-2 If any data referred to in condition 5-1 contains particulars of:

(1) a secret formula or process; or

(2) confidential commercially sensitive information;

the proponent may submit a request for approval from the CEO to not make this data publicly available. In making such a request the proponent shall provide the CEO with an explanation and reasons why the data should not be made publicly available.

6 Rehabilitation and Closure

6-1 The proponent shall ensure that the mines are closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed post-mining outcomes and land uses for a Priority 1 Public Drinking Water Source Area, and without unacceptable liability to the State of Western Australia.

6-2 The proponent shall prepare a Mine Closure Plan for the proposal.

6-3 The Mine Closure Plan required by condition 6-2 shall:

(1) when implemented, manage the implementation of the proposal to meet the requirements of condition 6-1;

(2) be prepared in accordance with the *Guidelines for Preparing Mine Closure Plans, June 2011* (Department of Mines and Petroleum and Environmental Protection Authority) or its revisions; and

(3) be to the requirements of the CEO on advice of the Department of Mines and Petroleum and the Department of Water.

6-4 Within 12 months of commissioning of the first below watertable mine pit or as otherwise agreed by the CEO the proponent shall implement the approved Mine Closure Plan and continue implementation until otherwise agreed by the CEO.

6-5 Revisions to the Mine Closure Plan may be approved by the CEO on the advice of the Department of Mines and Petroleum and the Department of Water.

6-6 The proponent shall implement revisions of the Mine Closure Plan required by condition 6-5.

[Signed 17 March 2014]

Albert Jacob MLA
MINISTER FOR ENVIRONMENT; HERITAGE

Schedule 1

Table 1: Summary of the Proposal

Proposal Title	Orebody 29/30/35 Mining Below Watertable
Short Description	The proposal is to extend the mining of the existing approved above watertable Orebody 29, 30, and 35 mines located approximately 7 km west-south-west of Newman, in the Shire of East Pilbara, to below the watertable and discharge any excess dewatering from these three orebodies into Ophthalmia Dam. Existing approved facilities at Mt Whaleback will be used to support the proposal, including processing facilities, machinery fleet, support services and facilities and overburden storage areas for waste rock.

Table 2: Location and authorised extent of physical and operational elements

Column 1	Column 2	Column 3
Element	**Location**	**Authorised Extent**
Dewatering	Figure 2	Groundwater abstraction up to 8 GL/a.
Dewater disposal	Figure 2	Discharge into Ophthalmia Dam up to 8 GL/a.

Table 3: Abbreviations

Abbreviation	Term
GL/a	Gigalitres per annum
km	kilometres

Figures (attached)

Figure 1 Regional location

Figure 2 Proposal development envelope

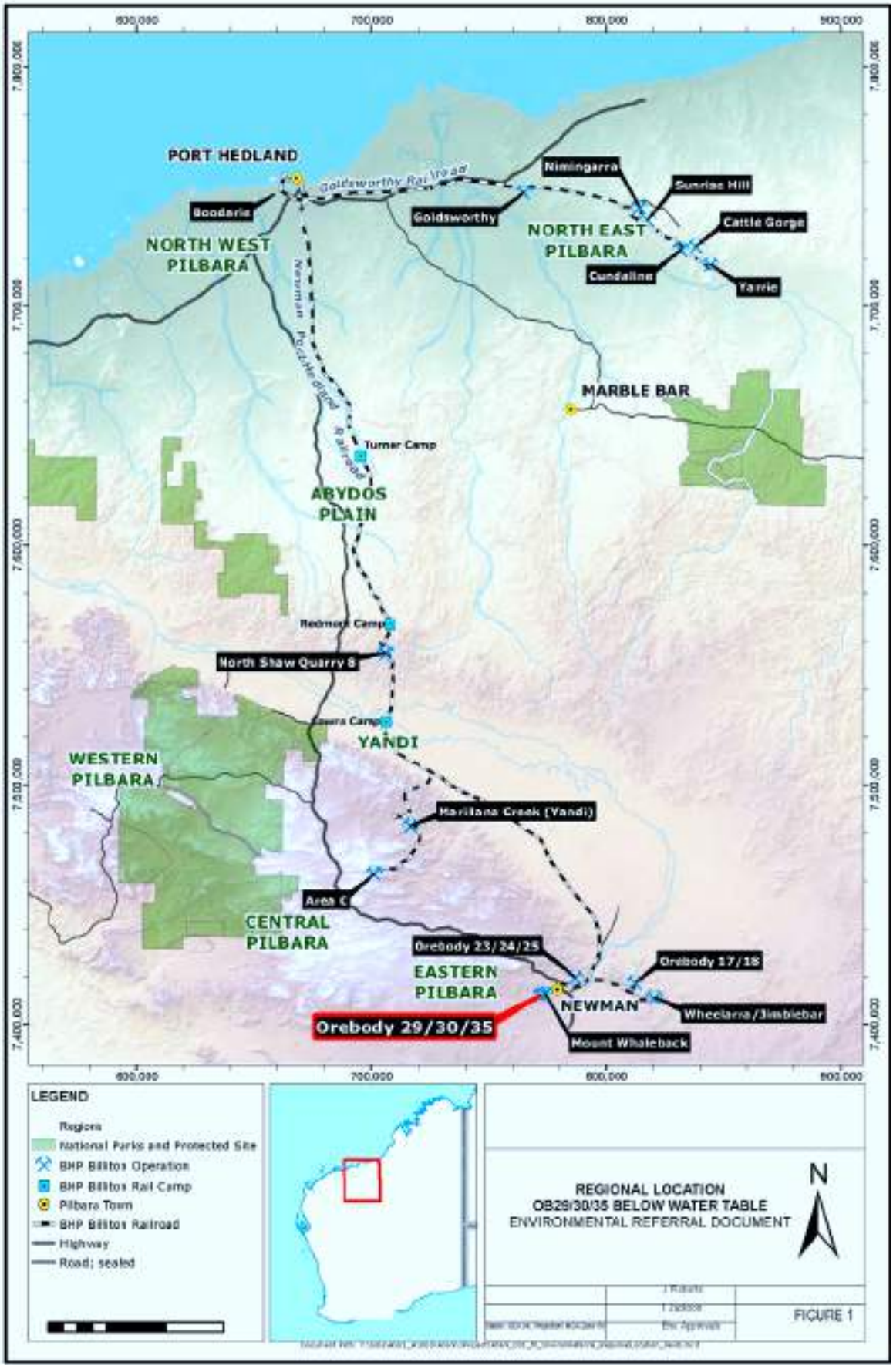

Figure 1: Regional location

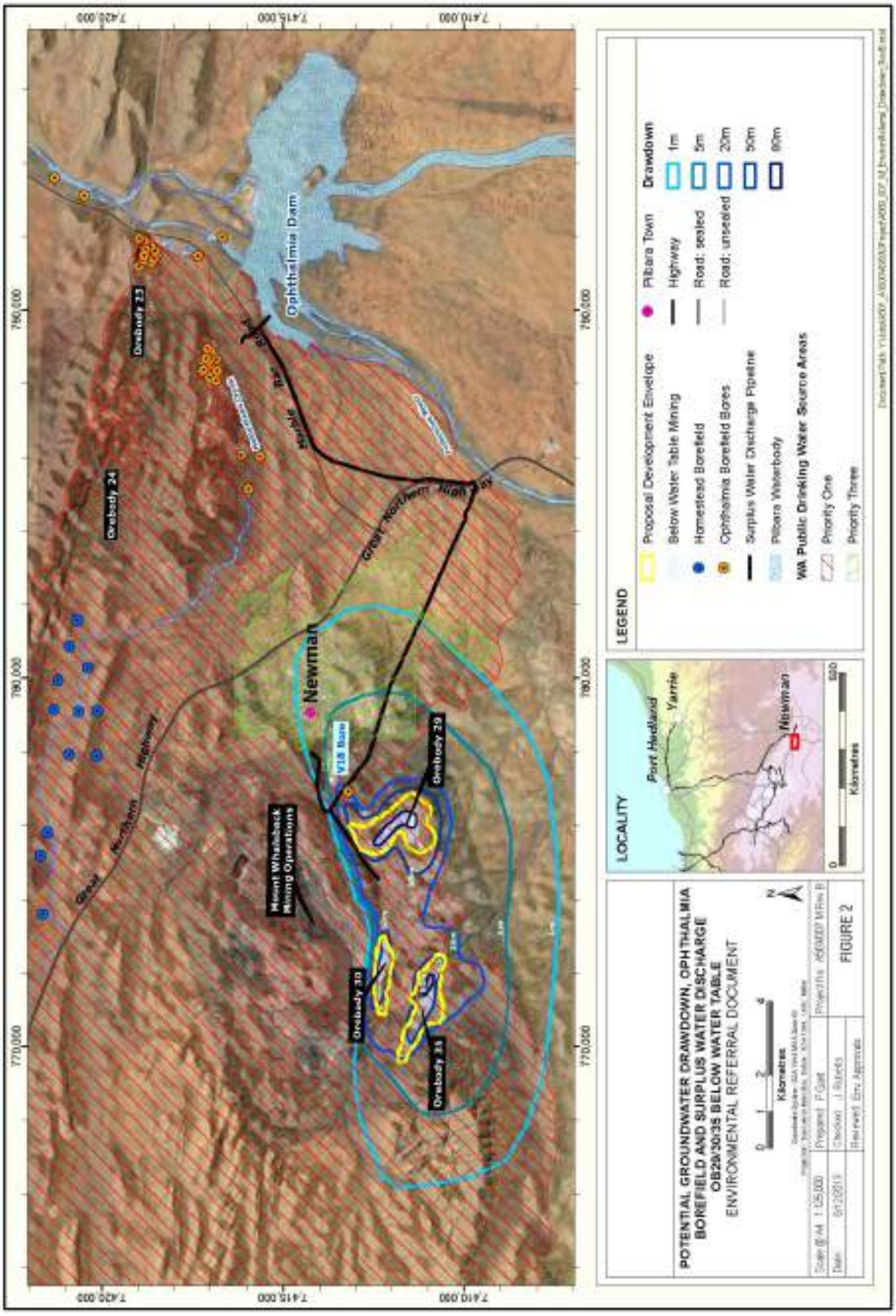

Figure 2: Proposal development envelope

Schedule 2

Term or Phrase	Definition
CEO	The Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986*

Schedule 3

OREBODY 29/30/35 MINING BELOW WATERTABLE

Coordinates that define the Development Envelopes

Coordinates defining the Development Envelopes as shown in Figure 2 of the Ministerial Statement are held by the Office of the EPA dated 30 August 2013.

Notes

The following notes are provided for information and do not form a part of the implementation conditions of the Statement:

- The proponent for the time being nominated by the Minister for Environment under section 38(6) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal unless and until that nomination has been revoked and another person is nominated.
- If the person nominated by the Minister, ceases to have responsibility for the proposal, that person is required to provide written notice to the Environmental Protection Authority of its intention to relinquish responsibility for the proposal and the name of the person to whom responsibility for the proposal will pass or has passed. The Minister for Environment may revoke a nomination made under section 38(6) of the *Environmental Protection Act 1986* and nominate another person.
- To initiate a change of proponent, the nominated proponent and proposed proponent are required to complete and submit *Post Assessment Form 1 – Application to Change Nominated Proponent*.
- The General Manager of the Office of the Environmental Protection Authority was the Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986* at the time the Statement was signed by the Minister for Environment.

[Minister's letterhead]

ATTACHMENT 1 TO STATEMENT 963

NOTICE OF CHANGES TO IMPLEMENTATION CONDITIONS

(section 46C of the *Environmental Protection Act 1986*)

OREBODY 29/30/35 MINING BELOW WATERTABLE

Pursuant to section 46C(1)(a) of the *Environmental Protection Act 1986,* the implementation conditions applying to the above proposal are changed in accordance with this Notice. I consider these changes to be of a minor nature and desirable in order to standardise the implementation conditions applying to different proposals.

[Signed 11 November 2015]

HON ALBERT JACOB MLA
MINISTER FOR ENVIRONMENT; HERITAGE

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1. Changes to Condition 4

Condition 4 is deleted, and replaced with:

4 Compliance Reporting

4-1 The proponent shall prepare, submit and maintain a Compliance Assessment Plan to the CEO at least six (6) months prior to the first Compliance Assessment Report required by condition 4-6, or prior to implementation, whichever is sooner.

4-2 The Compliance Assessment Plan shall indicate:

(1) the frequency of compliance reporting;

(2) the approach and timing of compliance assessments;

(3) the retention of compliance assessments;

(4) the method of reporting of potential non-compliances and corrective actions taken;

(5) the table of contents of Compliance Assessment Reports; and

(6) public availability of Compliance Assessment Reports.

4-3 After receiving notice in writing from the CEO that the Compliance Assessment Plan satisfies the requirements of condition 4-2 the proponent shall assess compliance with conditions in accordance with the Compliance Assessment Plan required by condition 4-1.

4-4 The proponent shall retain reports of all compliance assessments described in the Compliance Assessment Plan required by condition 4-1 and shall make those reports available when requested by the CEO.

4-5 The proponent shall advise the CEO of any potential non-compliance within seven (7) days of that non-compliance being known.

4-6 The proponent shall submit to the CEO the first Compliance Assessment Report fifteen (15) months from the date of issue of this Statement addressing the twelve (12) month period from the date of issue of this Statement and then annually from the date of submission of the first Compliance Assessment Report, or as otherwise agreed in writing by the CEO.

The Compliance Assessment Report shall:

(1) be endorsed by the proponent's Chief Executive Officer or a person delegated to sign on the Chief Executive Officer's behalf;

(2) include a statement as to whether the proponent has complied with the conditions;

(3) identify all potential non-compliances and describe corrective and preventative actions taken;

(4) be made publicly available in accordance with the approved Compliance Assessment Plan; and

(5) indicate any proposed changes to the Compliance Assessment Plan required by condition 4-1.

Attachment 5B: Other Approvals: Native Vegetation Clearing Permit (NVCP) CPS 5617/5

Government of Western Australia
Department of Mines, Industry Regulation and Safety

Our Ref: A1158/201301 / CPS 5617/5
Enquiries: Lesley Polomka Tel: (08) 9222 3313
Fax: (08) 9222 3860
Email: lesley.polomka@dmirs.wa.gov.au

Mr Chris Hopkins
Principal - Environment A & I
BHP Billiton Iron Ore Pty Ltd
PO Box 7122 Cloisters Square
PERTH WA 6850

Dear Mr Hopkins

Permit to Clear Native Vegetation under the *Environmental Protection Act 1986*
BHP Billiton Iron Ore Pty Ltd – Mt Whaleback Project (CPS 5617/5)
(Amendment to CPS 5617/4)

Please find enclosed your amended permit to clear native vegetation granted under s.51M of the *Environmental Protection Act 1986*. This authorisation gives you approval to clear, subject to certain terms, conditions or restrictions. A copy of your permit is now available for the public to view, as required by the regulations.

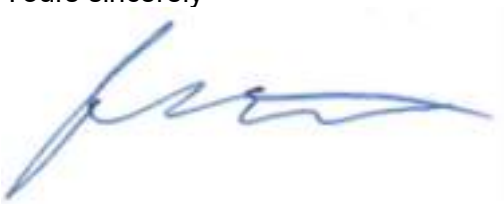
Read your permit carefully. If you do not understand your permit, contact this Department immediately. There are penalties for failing to comply with the requirements of your permit.

Please note the changes from the previous version of the permit (CPS 5617/4). The changes relate to the tenure listed on the permit and the permit conditions.

Compliance with the terms, conditions or restrictions of this permit does not absolve the Permit Holder from responsibility for compliance with the requirements of all Commonwealth and State legislation.

If you have any queries regarding this decision, please do not hesitate to contact Lesley Polomka, Senior Environmental Officer on (08) 9222 3313 or email lesley.polomka@dmirs.wa.gov.au.

Yours sincerely



_____
Daniel Endacott
General Manager Environmental Compliance
Resource and Environmental Compliance Division
11 April 2019

Officer with delegated authority under Section 20
of the *Environmental Protection Act 1986*

Encs

GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	5617/5
Duration of Permit:	From 23 November 2013 to 30 November 2030
Permit Holder:	BHP Billiton Iron Ore Pty Ltd

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I - CLEARING AUTHORISED

1. Land on which clearing is to be done

Iron Ore (Mount Newman) Agreement Act 1964, Mineral Lease 244SA (AML 70/244)
Iron Ore (Mount Newman) Agreement Act 1964, Special Lease for Mining Operations 3116/3687 (Document I 154279 L), Lease Extension K846790, Lot 19 on Deposited Plan 48921
Iron Ore (Mount Newman) Agreement Act 1964, Special Lease for Mining Operations 3116/3685, (Lease K858923), Lot 17 on Deposited Plan 241430
Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972, Mining Lease 266SA (AM 70/266)
Miscellaneous Licences 47/92, 52/99, 52/185
General Purpose Leases 52/19, 52/20, 52/21, 52/22, 52/23, 52/24, 52/25, 52/26, 52/27, 52/28, 52/29, 52/30, 52/31, 52/32, 52/33, 52/34, 52/35, 52/36, 52/37, 52/38, 52/39, 52/40, 52/41, 52/42, 52/43, 52/44, 52/45, 52/46, 52/47, 52/48, 52/49, 52/50, 52/51, 52/52, 52/53, 52/54, 52/55, 52/56, 52/57, 52/58, 52/59, 52/60, 52/61, 52/62, 52/63, 52/64, 52/65, 52/66, 52/67, 52/68, 52/69, 52/70, 52/71, 52/72, 52/73, 52/74, 52/75, 52/76, 52/77, 52/78, 52/79, 52/80, 52/81, 52/82, 52/83, 52/84, 52/85, 52/86, 52/87, 52/88, 52/89, 52/90, 52/91, 52/92, 52/93, 52/94, 52/95, 52/96, 52/97, 52/98, 52/99, 52/100, 52/101, 52/102, 52/103, 52/104, 52/105 52/106, 52/107, 52/108, 52/109, 52/110, 52/111, 52/112, 52/113, 52/114, 52/115, 52/116, 52/117, 52/118, 52/119, 52/120, 52/121, 52/122, 52/123, 52/124, 52/125, 52/126, 52/127, 52/128, 52/129, 52/130, 52/131, 52/132, 52/133, 52/134, 52/135, 52/136, 52/137, 52/138, 52/139, 52/140, 52/141, 52/142, 52/143, 52/144, 52/145, 52/146, 52/147, 52/148, 52/149, 52/150, 52/151, 52/152, 52/153, 52/154, 52/155, 52/156, 52/157, 52/158, 52/159, 52/160, 52/161, 52/162, 52/163, 52/164, 52/165, 52/166, 52/167, 52/168, 52/169, 52/170, 52/171, 52/172, 52/173, 52/174, 52/175, 52/176, 52/177, 52/178, 52/179, 52/180, 52/181, 52/182, 52/183, 52/184, 52/185, 52/186, 52/187, 52/188, 52/189, 52/190, 52/191, 52/192, 52/193, 52/194, 52/195, 52/196, 52/197, 52/198, 52/199, 52/200, 52/201, 52/202, 52/203, 52/204, 52/205, 52/206, 52/207, 52/208, 52/209, 52/210, 52/211, 52/212, 52/213, 52/214, 52/215, 52/216, 52/217, 52/218, 52/219, 52/220, 52/221, 52/222, 52/223, 52/224, 52/225, 52/226, 52/227, 52/228, 52/229, 52/230, 52/231, 52/232, 52/233, 52/234, 52/235, 52/236, 52/237, 52/238, 52/239, 52/240, 52/241, 52/242, 52/243, 52/244, 52/245, 52/246, 52/247, 52/248, 52/249, 52/250, 52/251, 52/252, 52/253, 52/254, 52/255, 52/256, 52/258, 52/259, 52/260, 52/261, 52/262, 52/263, 52/264, 52/265, 52/266, 52/267, 52/268, 52/269, 52/270, 52/271, 52/272, 52/273, 52/274, 52/276, 52/277, 52/279

2. Purpose for which clearing may be done

Clearing for the purposes of mineral production, mineral exploration, construction and maintenance of infrastructure and associated activities.

3. Area of Clearing

The Permit Holder shall not clear more than 2,010.3 hectares of native vegetation. All clearing must be within the areas cross-hatched yellow or shaded blue on attached Plan 5617/5.

4. Period in which clearing is authorised
The Permit Holder shall not clear any native vegetation after 30 November 2023.

5. Application
This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II - MANAGEMENT CONDITIONS

6. Weed control
When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

(i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
(ii) ensure that no *weed*-affected soil, *mulch, fill* or other material is brought into the area to be cleared; and
(iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Watercourse Management
Where the area shaded blue on attached Plan 5617/5 is to be impacted by clearing, the Permit Holder shall maintain the existing surface flow of Whaleback Creek.

8. Staged Clearing
The Permit Holder shall not clear native vegetation unless the purpose for which the clearing is authorised begins within 6 months of the clearing being undertaken.

9. Retain and spread vegetative material and topsoil
The Permit Holder shall:

(a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared;

(b) within 12 months following completion of clearing authorised under this permit, *revegetate* and *rehabilitate* areas of *temporary disturbance* that are no longer required for the purpose for which they were cleared under this Permit by:

(i) ripping the ground on the contour to remove soil compaction; and
(ii) laying the vegetative material and topsoil retained under Condition 9(a) on the cleared area.

(c) within 4 years of undertaking *revegetation* and *rehabilitation* in accordance with Condition 9(b) of this Permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
(ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under Condition 9(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

(d) where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with Condition 9(c)(ii) of this permit, the Permit Holder shall repeat Condition 9(c)(i) and 9(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.

(e) where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in Condition 9(c)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under Condition 9(c)(ii), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under Condition 9(c)(ii).

10. Retain vegetative material and topsoil, revegetation and rehabilitation
The Permit Holder shall:

(a) Prior to 5 October 2023, *revegetate* and *rehabilitate* 10 hectares of *temporary disturbance* previously cleared within the area crossed-hatched yellow on attached Plan 5617/5 by:

(i) Laying vegetative material and topsoil previously retained within the area cross-hatched yellow on attached Plan 5617/5 on the cleared areas; and
(ii) Ripping the ground on the contour to remove soil compaction.

(b) within 4 years of undertaking *revegetation* and *rehabilitation* in accordance with Condition 10(a) of this Permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
(ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under Condition 10(b)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

(c) where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with Condition 10(b)(ii) of this permit, the Permit Holder shall repeat Condition 10(b)(i) and 10(b)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.

(d) where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in Condition 10(b)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under Condition 10(b)(ii), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under Condition 10(b)(ii).

PART III - RECORD KEEPING AND REPORTING

11. Records to be kept
The Permit Holder must maintain the following records for activities done pursuant to this Permit:

(a) In relation to the clearing of native vegetation authorised under this Permit:

(i) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
(ii) the date that the area was cleared;
(iii) the size of the area cleared (in hectares); and
(iv) purpose for which clearing was undertaken.

(b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to Conditions 9 and 10 of this Permit:

(i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
(ii) a description of the *revegetation* and *rehabilitation* activities undertaken; and
(iii) the size of the area *revegetated* and *rehabilitated* (in hectares).

12. Reporting

(a) The Permit Holder shall provide a report to the General Manager Environmental Compliance, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety by 1 October each year for the life of this permit, demonstrating adherence to all conditions of this permit, and setting out the records required under Condition 11 of this permit in relation to clearing carried out between 1 July and 30 June of the previous financial year.

(b) Prior to 30 November 2030, the Permit Holder must provide to the General Manager Environmental Compliance, Resource and Environmental Compliance Division, Department of Mines, Industry Regulation and Safety a written report of records required under Condition 11 of this Permit where these records have not already been provided under Condition 12(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

botanist means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience in identification and surveys of flora native to the bioregion being inspected or surveyed, or who is approved by the *CEO* as a suitable botanist for the bioregion;

CEO means the Chief Executive Officer of the Department of Water and Environmental Regulation or an officer with delegated authority under Section 20 of the *Environmental Protection Act 1986*;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the *CEO* as a suitable environmental specialist;

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 200 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared;

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regeneration means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

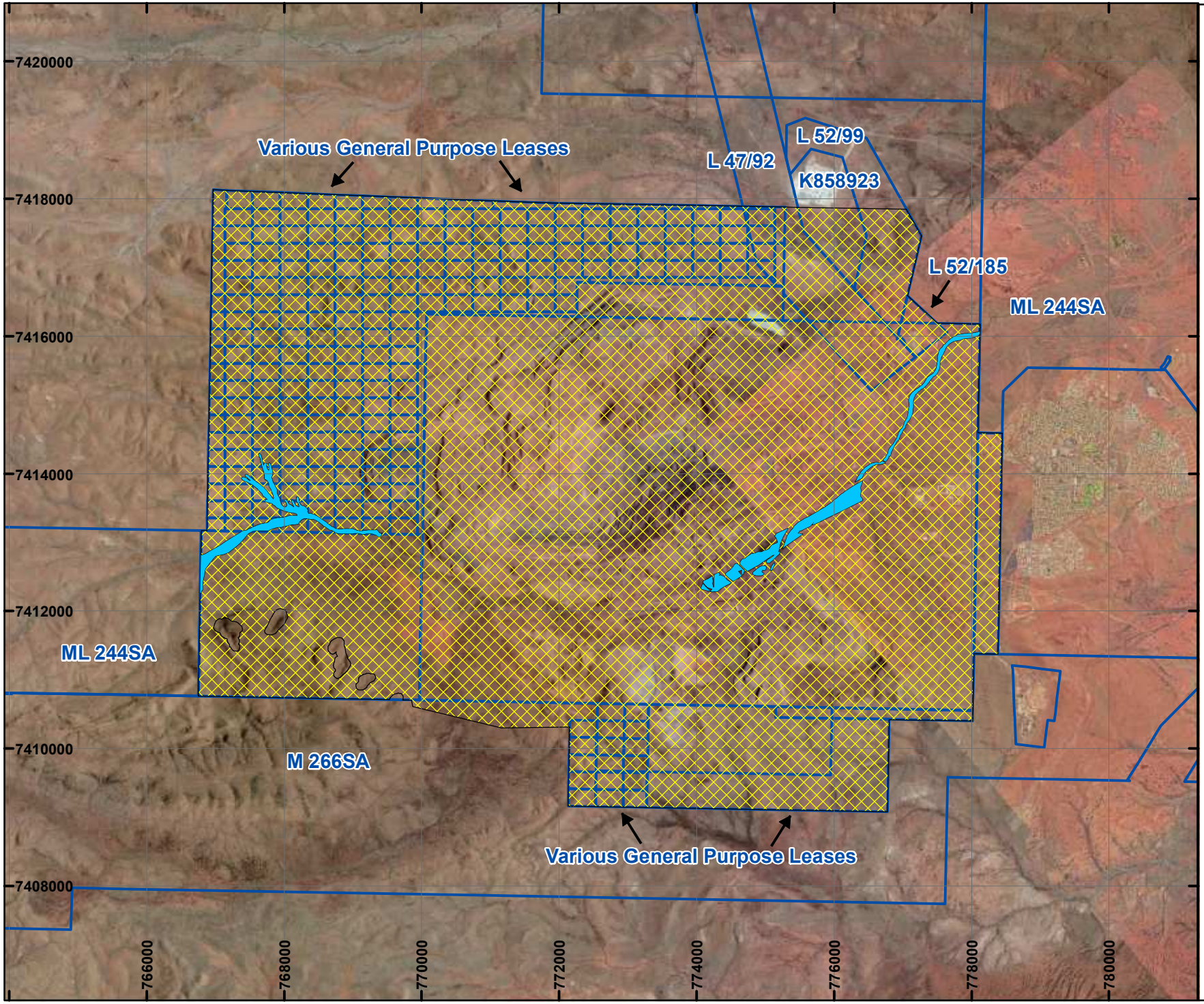
temporary disturbance means areas cleared for the purpose of mineral exploration; construction and maintenance of access roads; fibre optic cables; maintenance activities; geotechnical investigations; borrow pits; laydown areas; assembly areas; water bores; turkey nests; culverts; and ancillary infrastructure;

weed/s means any plant -
(a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
(b) published in a Department of Biodiversity, Conservation and Attractions Regional Weed Rankings Summary, regardless of ranking; or
(c) not indigenous to the area concerned.

Daniel Endacott
General Manager Environmental Compliance
Resource and Environmental Compliance Division
11 April 2019

Officer with delegated authority under Section 20
of the *Environmental Protection Act 1986*

PLAN 5617/5



LEGEND

- Mining Tenements

Clearing Instruments

- Areas Approved to Clear
- Areas Subject to Conditions

Orthophotography sourced from Landgate

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Scale 1:75,000

(Appoximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

DANIEL ENDACOTT Date 11/04/2019

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Government of Western Australia
Department of Mines, Industry Regulation and Safety

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 5617/5
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **BHP Billiton Iron Ore Pty Ltd**

1.3. Property details

Property:
Iron Ore (Mount Newman) Agreement Act 1964, Mineral Lease 244SA (AML 70/244)

Iron Ore (Mount Newman) Agreement Act 1964, Special Lease for Mining Operations 3116/3687 (Document I 154279 L), Lease Extension K846790, Lot 19 on Deposited Plan 48921

Iron Ore (Mount Newman) Agreement Act 1964, Special Lease for Mining Operations 3116/3685, (Lease K858923), Lot 17 on Deposited Plan 241430

Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972, Mining Lease 266SA (AM 70/266)

Miscellaneous Licences 47/92, 52/99, 52/185

General Purpose Leases 52/19 to 52/256, 52/258 to 52/274, 52/276, 52/277, 52/279

Local Government Area: Shire of East Pilbara
Colloquial name: Mt Whaleback Project

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2,010.3		Mechanical Removal	Mineral production, mineral exploration, construction and maintenance of infrastructure and associated activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 April 2019

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description

Beard vegetation associations have been mapped for the whole of Western Australia and are useful to look at vegetation in a regional context. The following Beard vegetation associations have been broadly mapped within the application area (GIS Database):

18: Low woodland; mulga (*Acacia aneura*); and
82: Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana.*

There have been numerous flora and vegetation surveys undertaken over the Mt Whaleback and surrounding areas since 1984. Based on those surveys the following 29 vegetation associations have been identified within the application area (Onshore Environmental, 2013):

1. Low Open Forest of *Acacia aptaneura*, *Acacia citrinoviridis* and *Corymbia hamersleyana* over Tussock Grassland of *Themeda triandra*, *Aristida inaequiglumis* and **Cenchrus ciliaris* with High Open Shrubland of *Acacia pyrifolia*, *Petalostylis labicheoides* and *Rulingia luteiflora* in brown sandy loam on tributaries of major drainage lines and adjacent floodplains;

2. Low Open Forest of *Acacia aptaneura*, *Acacia pruinocarpa* and *Eucalyptus xerothermica* (*Acacia ayersiana*) over Open Hummock Grassland of *Triodia pungens* with Open Shrubland of *Acacia bivenosa*, *Rhagodia eremaea* and *Psydrax latifolia* in red loamy sand on hardpan plains;

3. Low Open Forest of *Acacia catenulata* subsp. *occidentalis*, *Acacia aptaneura* and *Grevillea berryana* over Open Shrubland of *Eremophila latrobei*, *Acacia sibirica* and *Senna glutinosa* subsp. *luerssenii* over Open

Hummock Grassland of *Triodia pungens* and *Triodia wiseana* in red sandy loam on valley floors and along incised drainage lines;

4. Low Woodland of *Acacia aptaneura* and *Acacia pruinocarpa* over Open Hummock Grassland of *Triodia brizoides* with Low Open Woodland of *Eucalyptus xerothermica* and *Eucalyptus leucophloia* subsp. *leucophloia* in red brown loam on hardpan plains;

5. Low Woodland of *Acacia catenulata* subsp. *occidentalis*, *Corymbia ferriticola* and *Ficus brachypoda* over Shrubland of *Eremophila tietkensii*, *Dodonaea pachyneura* and *Acacia hamersleyensis* over Open Hummock Grassland of *Triodia pungens* in red loamy sand in rocky gullies and small gorges;

6. Hummock Grassland of *Triodia angusta* and *Triodia wiseana* with Open Mallee of *Eucalyptus gamophylla* and/or *Eucalyptus socialis* subsp. *eucentrica* and Open *Shrubland* of *Acacia bivenosa* in light brown loamy sand on calcrete rises and plains;

7. Hummock Grassland of *Triodia basedowii* with High Open Shrubland of *Acacia inaequilatera*, *Acacia pruinocarpa* and *Hakea chordophylla* and Open Shrubland of *Eremophila fraseri* and *Eremophila platycalyx* subsp. *pardalota* in red loamy sand on hill slopes;

8. Hummock Grassland of *Triodia pungens* with Open Mallee of *Eucalyptus trivalvis* and/or *Eucalyptus gamophylla* and Shrubland of *Acacia bivenosa* and *Petalostylis labicheiodes* in red loamy sand on plains;

9. Hummock Grassland of *Triodia pungens*, *Triodia epactia* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa*, *Eremophila jucunda* subsp. *pulcherrima* and *Ptilotus obovatus* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia a*nd *Corymbia hamersleyana* in red loamy sand on flood plains adjacent to tributaries of major drainage lines;

10. Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. Van Leeuwen 3835) with Low Open Woodland of *Acacia pruinocarpa* and *Acacia aptaneura* and High Open Shrubland of *Acacia aptaneura*, *Acacia inaequilatera* and *Senna glutinosa* subsp. *glutinosa* in red loamy sand on hill crests and upper hill slopes;

11. Hummock Grassland of *Triodia wiseana* and *Triodia brizoides* with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and Open Shrubland of *Acacia synchronicia*, *Acacia bivenosa* and *Acacia tenuissima* in red loamy sand on lower hill slopes and plains;

12. Hummock Grassland of *Triodia wiseana*, *Triodia brizoides* and *Triodia pungens* with Open Shrubland of *Acacia inaequilatera*, *Acacia maitlandii* and *Senna glutinosa* subsp. *luerssenii* with Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia hamersleyana* and *Hakea lorea* subsp. *lorea* in brown sandy loam on undulating hills;

13. Hummock Grassland of *Triodia wiseana*, *Triodia pungens* and *Triodia brizoides* with High Open Shrubland *Acacia dictyophleba*, *Acacia bivenosa* and *Acacia adsurgens* in red brown sand loam on hill crests and upper hill slopes;

14. Hummock Grassland of *Triodia wiseana*, *Triodia pungens* and *Triodia brizoides* with Open Shrubland of *Acacia bivenosa*, *Acacia inaequilatera* and *Acacia maitlandii* and Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* and *Corymbia hamersleyana* in red loamy sand on undulating hill slopes;

15. Open Hummock Grassland of *Triodia pungens* with Low Open Woodland of *Acacia aptaneura* and *Acacia paraneura* and Open Shrubland of *Acacia synchronicia*, *Acacia bivenosa* and *Acacia tetragonophylla* in red loamy sand on plains;

16. Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with High Open Shrubland of *Acacia rhodophloia* and *Hakea chordophylla* and Open Shrubland of *Acacia acradenia*;

17. Open Hummock Grassland of *Triodia* sp. Shovelanna Hill (S. van Leeuwen 3835) with Low Open Woodland of *Eucalyptus leucophloia* subsp. *leucophloia* and Low Open Shrubland of *Acacia adoxa* var. *adoxa* and *Gompholobium oreophilum* in red loamy sand on hill slopes;

18. Tussock Grassland of *Themeda triandra* and **Cenchrus ciliaris* with Shrubland of Acacia *bivenosa, Senna glutinosa* subsp. *glutinosa* and *Eremophila longifolia* and Low Open Woodland of *Acacia aptaneura* and *Corymbia hamersleyana* in brown loamy sand on levee banks of major drainage lines;

19. Tussock Grassland of Themeda *triandra*, **Cenchrus ciliaris* and *Eriachne tenuiculmis* with Open Woodland of *Eucalyptus victrix* or *Eucalyptus camaldulensis* subsp. *refulgens*, *Corymbia hamersleyana* and *Acacia citrinoviridis* over High Open Shrubland of *Santalum lanceolatum*, *Eremophila longifolia* and *Acacia pyrifolia* var. *pyrifolia* in brown loamy sand on incised channels of major drainage lines;

20. Open Tussock Grassland of **Cenchrus ciliaris* with High Open Shrubland of *Grevillea wickhamii*, *Acacia pruinocarpa* and *Acacia aptaneura* in red loamy sand on rehabilitated waste dump batters;

21. Scattered Low trees of *Eucalyptus leucophloia* subsp. *leucophloia* over a Low Open Shrubland of *Petalostylis labicheoides Acacia catenulata* subsp. *occidentalis* and *Acacia monticola* over Very Open Hummock Grassland of *Triodia pungens* and Very Open Tussock Grassland of *Themeda triandra* and *Eriachne mucronata*;

22. Scattered Low Trees of *Eucalyptus gamophylla* over Low Open Forest of *Acacia aneura* var. *tenuis*, *Acacia pruinocarpa* and *Hibiscus sturtii* var. *campylochlamys* over Open Tussock Grassland of *Enneapogon caerulescens* and *Eriachne mucronata* with Very Open Hummock Grass of *Triodia epactia* and *Triodia pungens;*

23. Low Woodland *of* Acacia *aneura* var ?*pilbarana*, *Acacia catenulata* subsp. *occidentalis* and *Acacia pruinocarpa* over Open shrubland of *Eremophila exilifolia*, *Eremophila forrestii* subsp. *forrestii*, and *Eremophila latrobei* over Open Hummock Grassland of *Triodia brizoides* and *Triodia pungens*;

24. Low Woodland of *Acacia pruinocarpa*, *Acacia aneura* var ?*pilbarana* and *Eucalyptus gamophylla* over Low Scattered Shrubs of *Anthobolus leptomerioides* over Hummock Grassland of *Triodia brizoides* and *Triodia pungens* with Scattered Herbs of *Goodenia stobbsiana;*

25. Low Woodland of *Acacia pruinocarpa* and *Acacia aneura* var. *tenuis* over Scattered Shrubs of *Acacia inaequilatera*, *Acacia bivenosa* and P*tilotus calostachyus* over Open Hummock Grassland of *Triodia brizoides* with Very Open Tussock Grassland of *Themeda* sp. and *Paraneurachne muelleri*.

26. Low Open Woodland of *Eucalyptus xerothermica*, *Corymbia ferriticola* and *Corymbia hamersleyana* over Shrubland of *Acacia aneura* var. *tenuis*, *Acacia tenuissima* and *Acacia tetragonophylla* over Open Hummock grassland of *Triodia pungens* and *Triodia angusta;*

27. Low Woodland of *Eucalyptus leucophloia* subsp. *leucophloia*, *Corymbia ferriticola* and *Corymbia hamersleyana* over High Open Shrubland of *Acacia catenulata* subsp. *occidentalis*, *Acacia rhodophloia* and *Acacia pruinocarpa* over Hummock Grassland of *Triodia brizoides* and *Triodia pungens;*

28. Scattered Low Trees of *Eucalyptus leucophloia* subsp. *leucophloia* over Open Shrubland of *Acacia ancistrocarpa*, *Acacia bivenosa* and *Acacia dictyophleba* over Hummock Grassland of *Triodia brizoides;*

29. Low Open Woodland of *Eucalyptus gamophylla*, *Eucalyptus kingsmillii* subsp. *kingsmillii* and *Eucalyptus leucophloia* subsp. *leucophloia* over Scattered Shrubs of Acacia pruinocarpa, *Senna glutinosa* subsp. *glutinosa* and *Ptilotus obovatus* over Hummock Grasslands of *Triodia pungens*, *Triodia epactia* and *Triodia brizoides* and Very Open Tussock Grass of *Eriachne mucronata* and *Cymbopogon ambiguous*.

Clearing Description

Mt Whaleback Project
BHP Billiton Iron Ore Ply Ltd proposes to clear up to 2,010.3 hectares of native vegetation within a total boundary of approximately 8,885 hectares, for the purpose of mineral production, mineral exploration, construction and maintenance of infrastructure and associated activities. The project is located immediately to the west of the town of Newman, in the Shire of East Pilbara.

Vegetation Condition

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994);

To

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

Comment

The vegetation condition was derived from a summary of vegetation surveys undertaken over the application area prepared by Onshore Environmental (2013).

The proposed clearing is for a wide range of purposes including mineral production, mineral exploration, maintenance of infrastructure, borrow areas, laydown areas, stockpiles, tailings storage facilities, ore processing and benefaction activities (BHP Billiton, 2019). The permit area covers 13 clearing permits that were previously granted over the area. These permits were revoked on 7 August 2014.

Clearing permit CPS 5617/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety (DMIRS)) on 31 October 2013 and authorised the clearing of 2,100 hectares within a boundary of 8,800 hectares.

Amended permit CPS 5617/2 was granted on 14 August 2014, increasing the permit boundary to 8,875 hectares and reducing the amount of clearing authorised to 2,010.3 hectares.

Amended permit CPS 5617/3 was granted on 7 April 2016, to remove Conditions 7 and 8 from the permit and extend the permit duration from 23 November 2030 to 30 November 2030.

On 14 January 2019, the Permit Holder applied to amend CPS 5617/4 to update the tenure on the permit, and amend the area subject to Condition 7. The area of clearing authorised and permit boundary remain unchanged.

3. Assessment of application against Clearing Principles

Comments

BHP Billiton Iron Ore Pty Ltd has applied to amend the permit to include Miscellaneous Licence 52/185 in the tenure listed on the permit, due to a recent realignment of tenement boundaries related to the proponent's State Agreement Acts. The clearing permit boundary has not changed.

The permit holder has also applied to adjust the areas subject to permit Condition 7, which aims to minimise impacts to the Major Drainage Line habitat associated with Whaleback Creek.

The Major Drainage Line habitat comprises mature River Red Gums, Coolibahs and stands of Silver Cadjeput over river pools (Biologic, 2014). The habitat is characterised by open, sandy or gravelly creeks and riverbeds and is relatively narrow and linear in nature, following the alignment of watercourses. Although not uncommon in the region, this habitat is considered an important feature in the landscape as it provides a water source and movement corridor for fauna, including conservation significant species (Biologic, 2014).

A recent review and consolidation of previous fauna habitat mapping has more accurately identified the Major Drainage Line habitat occurring within the permit area (BHP Billiton, 2019; Biologic, 2014). Part of the application area previously mapped as Major Drainage Line habitat has been reclassified as Drainage Area habitat (BHP Billiton, 2019; Biologic, 2014). The Drainage Area habitat is common in the region and is characterised by *Eucalyptus xerothermica* and *Corymbia hamersleyana* woodland over *Acacia* shrublands on sandy loam soils sometimes with exposed rocky areas (Biologic, 2014).

The refinement of the mapping of the Major Drainage Line habitat within the permit area has resulted in a reduction in the area subject to Condition 7 on the western side of the permit area by approximately 20 hectares. The area subject to Condition 7 on the eastern side of the permit area, remains unchanged. The reduction in the area subject to Condition 7 is unlikely to result in any significant change to the environmental impacts of the proposed clearing.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986.* Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in previous versions of the decision report.

Methodology BHP Billiton (2019)
Biologic (2014)

GIS Database:
- Imagery
- Pre-European Vegetation
- Threatened and Priority Flora
- Threatened and Priority Ecological Communities boundaries
- Threatened Fauna

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

There is one native title claim (WC2005/006) over the area under application (DPLH, 2019). This claim has been determined by the Federal Court on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are several registered Aboriginal Sites of Significance within the application area (DPLH, 2019). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal sites of significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The amendment application was advertised on 28 January 2019 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

Methodology DPLH (2019)

4. References

BHP Billiton (2019) Application to Amend Native Vegetation Clearing Permit CPS 5617/4 Whaleback Strategic NVCP. BHP Billiton Iron Ore Pty Ltd, January, 2019.

Biologic (2014) Consolidation of Regional Fauna Habitat Mapping. Report prepared for BHP Billiton Iron Ore Pty Ltd, by Biologic Environmental Survey Pty Ltd, May 2014.

DPLH (2019) Aboriginal Heritage Enquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 05 April 2019).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Onshore Environmental (2013) Flora and Vegetation and Vertebrate Fauna Review - Mt Whaleback AML 7/244. Report prepared for BHP Billiton Iron Ore Pty Ltd, by Onshore Environmental, April 2013.

5. Glossary

Acronyms:

BoM	Bureau of Meteorology, Australian Government
DAA	Department of Aboriginal Affairs, Western Australia (now DPLH)
DAFWA	Department of Agriculture and Food, Western Australia (now DPIRD)
DBCA	Department of Biodiversity, Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
DER	Department of Environment Regulation, Western Australia (now DWER)
DMIRS	Department of Mines, Industry Regulation and Safety, Western Australia
DMP	Department of Mines and Petroleum, Western Australia (now DMIRS)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	*Environmental Protection Act 1986*, Western Australia
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Federal Act)
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
IBRA	Interim Biogeographic Regionalisation for Australia
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
PEC	Priority Ecological Community, Western Australia
RIWI Act	*Rights in Water and Irrigation Act 1914*, Western Australia
TEC	Threatened Ecological Community

Definitions:

{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-

T **Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**
Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**
Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU **Vulnerable species**
Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Extinct Species:

EX **Extinct species**
Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW **Extinct in the wild species**
Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species:

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI **Migratory species**
Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD **Species of special conservation interest (conservation dependent fauna)**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS **Other specially protected species**
Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

P **Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna

lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 **Priority One - Poorly-known species**
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 **Priority Two - Poorly-known species**
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 **Priority Three - Poorly-known species**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 **Priority Four - Rare, Near Threatened and other species in need of monitoring**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Attachment 5C: Other Approvals: Environmental Licence L4503/1975/14

Government of Western Australia
Department of Water and Environmental Regulation

Amendment Notice 2

Licence Number	L4503/1975/14
Licence Holder	BHP Billiton Iron Ore Pty Ltd
ACN	088 700 981
File Number:	DER2013/000901
Premises	Mt Whaleback/Orebody 29/30/35 Tenements E52/2009-1, ML244SA, G52/19-G52/27, G52/276, G52/277, G52/279; and Special Leases K858923 and N088235
Date of Amendment	6/11/2017

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Date signed: 6 November 2017

Alana Kidd

Manager Licensing – Resource Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment for Category 73. No changes to the aspects of the original licence relating to Category 5, 6, 54, 61 and 64 activities have been requested by the Licensee.

The following DER Guidance Statements have informed the decision made on this amendment.

- *Guidance Statement: Regulatory Principles* (July 2015);
- *Guidance Statement: Setting Conditions* (October 2015);
- *Guidance Statement: Decision Making* (February 2017);
- *Guidance Statement: Risk Assessment* (February 2017); and
- *Guidance Statement: Environmental Siting* (November 2016).

Amendment description

On 4 September 2017, BHP Billiton Iron Ore Pty Ltd (Licensee) submitted an application to DER under section 59B of the EP Act for an amendment to the Mt Whaleback/Orebody 29/30/35 licence (L4503/1975/14).

The Licensee has applied to make the following changes:

1. Installation, commission and operation of a new 200kL mobile self-bunded reticulated diesel tank at the Mount Whaleback (mine) Maintenance Workshop (MEW) adjacent to exiting tank farm fuel bullets; and
2. Increase of Category 73 throughput by 1,051 m^3 (from 11,749m^3 to 13,000 m^3) to allow for potential future bulk chemical storage options.

Table 1 below outlines the proposed changes to the Licence.

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
73	11, 749 cubic metres	13, 000 cubic metres	To allow for additional hydrocarbons to be stored at the premises without triggering the need for a licence amendment, as the management measures for the new hydrocarbon facilities will remain consistent with the existing licence

There is no amendment proposed to the location of existing infrastructure within Schedule 1: Maps (Premises map or Map of emission points) as a result of this amendment.

The new fuel facility will be facility will be used for refueling both haul and service trucks in the area.

Other approvals

The Licensee has provided the following information relating to other approvals as outlined in Table 2.

Table 2: Relevant approval

Legislation	Number	Approval
Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007.	Dangerous Goods Licence (DGS0153988)	This approval is administered by the Department of Mines, Industry regulation and Safety (DMIRS) for the purpose of licensing the containment facilities.

Amendment history

Table 3 provides the amendment history for L4503/1975/14.

Table 3: Licence amendments

Instrument	Issued	Amendment
L4503/1975/13	22/12/2011	Licence amendment to increase capacity of Category 5 to 58 million tonnes per annum, change premises boundary and include Category 61 to the Licence
L4503/1975/13	16/02/2012	Licence amendment to include Category 85B constructed under W4972/2011/1
L4503/1975/13	7/11/2012	Licence amendment to incorporate three additional water treatment cells to the existing Newman temporary water treatment plant
L4503/1975/14	9/10/2014	Licence amendment to include additional discharge points and convert to new format
L4503/1975/14	11/06/2015	Licence amendment to include two inert landfills, oily water separator, treated wastewater evaporation pond and contingency discharge point, extension of the hydrodynamic trial timeframe and disposal of used conveyor belts
L4503/1975/14	28/04/2016	Licence amendment to extend the duration of the hydrodynamic trial
L4503/1975/14	30/06/2016	Licence amendment to include Category 6, increase Category 73 approved design capacity, contingency discharge of Reverse Osmosis (RO) reject water to Ophthalmia Dam, increase in RO reject water discharge to Acid Mine Drainage (AMD) facility, remove wastewater treatment plants less than 20 cubic metres per day capacity and updates to monitoring requirements
L4503/1975/14	1/09/2016	Licence amendment to update the premises address and include a new asbestos disposal location
L4503/1975/14	21/04/2017	Amendment Notice 1 Licence amendment to remove Category 85B, increase capacity for Category 61 and change premises boundary
L4503/1975/14	06/11/2017	Amendment Notice 2 (this amendment) Licence amendment to increase capacity for Category 73

Risk assessment

Tables 4 and 5 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 4: Risk assessment for proposed amendments during construction

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**				
Cat 73 Bulk storage of chemicals etc.: premises on which acids, alkalis or chemicals that.. are stored	Installation and first – fill of diesel tank(s)	Hydrocarbons	Nil. The Waste Oil Storage Area - MEW area is located in the centre of an active mine site and there are no nearby sensitive receptors	Land: Seepage of hydrocarbons	Adverse impacts to the health and survival of vegetation	N/A	N/A	N/A	The bulk storage and management of the diesel tanks and other chemical storage will be conducted in accordance with Dangerous Goods Licence (DGS 0153988). There are no sensitive receptors surrounding the proposed installation location (Waste Oil Storage Area - MEW) and the area is a 'working area' and devoid of vegetation. The installation of the mobile self bunded reticulated diesel tank will involve the delivery and connection of the tank (the tank is pre-fabricated to AS1940 standards off-site). Connection will involve the attachment of pipework to enable dispense of diesel. No risk to the environment is anticipated from the installation of the diesel tank.
	Future installation of bulk chemical storage options	Hydrocarbons, bulk chemicals				N/A	N/A	N/A	The bulk storage and management of the other chemical storage will be conducted in accordance with Dangerous Goods Licence (DGS 0153988). There are no sensitive receptors surrounding the proposed installation location (Waste Oil Storage Area - MEW) and the area is a 'working area' and devoid of vegetation. Storage of bulk chemical and

									hydrocarbons will be in accordance with AS1940. No risk to the environment is anticipated from the installation of the tanks.

Table 5: Risk assessment for proposed amendments during operation

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**				
Cat 73 Bulk storage of chemicals etc.: premises on which acids, alkalis or chemicals that.. are stored.. up to 13, 000 cubic metres	Storage, dispense and spill of diesel	Hydrocarbons	Nil. The Waste Oil Storage Area - MEW area is located in the centre of an active mine site and there are no nearby sensitive receptors	Land: Seepage of hydrocarbons	Adverse impacts to the health and survival of vegetation	Slight	Unlikely	Low	Commitments have been made by BHP in applications and subsequent Decision Documentation (eg: June 2015: L4503/21975/14 amendment) for the management of surface water flow, on-site spill management and hydrocarbon treatment at the MEW area Oil Water Separator (OWS). The applicant has committed to: • Capturing locally and directing surface water flow from the refueling facility to the workshop area OWS; • Treating wastewater from the MEW area through the OWS to achieve a TRH concentration of less than 15 mg/L; • Discharging the treated wastewater to a lined evaporation pond; • Collecting potentially contaminated slurry from the sediment sumps for remediation at the onsite bioremediation facility; • Utilizing the emergency contingency overflow at the evaporation pond,

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
									limiting uncontrolled discharge; • Conducting quarterly TRH sampling; and sampling volumetric flow rates and TRH concentration during contingency discharge events (Required under condition 3.5.1 of this licence). The management commitments and existing licence requirements are deemed appropriate to manage the risk of hydrocarbon storage and spills on the environment and around the Waste Oil Storage Area - MEW. As such, the Delegated Officer considers the onsite impact to be minimal, resulting in a consequence of **slight** and the likelihood, **unlikely**. Therefore, the risk has been deemed as **low**.

Decision

The Delegated Officer considers the existing L4503/1975/14 conditions and associated hydrocarbon management commitments by BHP to be adequate to manage the risks associated with the installation and operation of the new 200kL capacity diesel storage tank and increase of Category 73 throughput to 13,000m^3.

Licensee comments

The Licence Holder was provided with the draft Amendment Notice on 23 October 2017. No additional comments were received from the Licence Holder in relation the draft of this amendment notice.

Amendment

1. Page 1 of the licence is amended by the deletion of the text shown in strikethrough and insertion of the bold text shown in underline below:

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
5	*Processing or beneficiation of metallic or non-metallic ore*	*50 000 tonnes or more per year*	*80 000 000 tonnes per annual period*
6	*Mine dewatering*	*50,000 tonnes or more per year*	*80 000 000 tonnes per annual period*
54	*Sewage facility*	*100 cubic metres or more per day*	*183.2 cubic metres per day*
61	*Liquid waste facility*	*100 tonnes or more per year*	*9,348,600 tonnes per annual period*
64	*Class II putrescible landfill site*	*20 tonnes or more per year*	*6 000 tonnes per annual period*
73	*Bulk storage of chemicals, etc.*	*1 000 cubic metres in aggregate*	*~~11 749~~ **13,000** cubic metres*

2. Page 4 (Premises Description and Licence Summary) of the licence is amended by the deletion of the text shown in strikethrough below and insertion of the bold text shown in underline below:

*Bulk fuel storage ~~facility~~ on site ~~consists of 3 steel vertical tanks which have~~ has the capacity to store up to ~~11,749~~ **13,000** cubic metres of fuel. ~~The facility~~ Fuel storage is compliant with Australian standards, **is approved under Dangerous Goods Licence (DGS 0153988).** Storage tanks are fitted with high level alarms.*

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L4503/1975/14 – Mt Whaleback/Orebody 29/30/35 Includes Amendment Notice 1, dated 21 April 2017	L4503/1975/14	accessed at www.dwer.wa.gov.au
2	DER, July 2015. Guidance Statement: Regulatory principles. Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
3	DER, October 2015. Guidance Statement: Setting conditions. Department of Environment Regulation, Perth.	DER 2015b	accessed at www.dwer.wa.gov.au
4	DER, February 2017. Guidance Statement: Risk Assessments. Department of Environment Regulation, Perth.	DER 2017a	accessed at www.dwer.wa.gov.au
5	DER, February 2017. Guidance Statement: Decision Making. Department of Environment Regulation, Perth.	DER 2017b	accessed at www.dwer.wa.gov.au
6	L4503/1975/14 amendment issued 11/06/2015. Partial Decision Document	-	DWER records (A895708)
7	Email 'RE: Application to amend L4503/1975/14 - Whaleback Licence, request for additional information'	-	DWER records (A1531404)
8	Email: 'RE: APPLICANT NOTIFICATION - L4503/1975/14 - NOTICE OF PROPOSED AMENDMENT TO LICENCE – Notification Waiver 25 Oct 2017'		DWER records (A1547605)

Government of Western Australia
Department of Environment Regulation

Amendment Notice 1

Licensee	BHP Billiton Iron Ore Pty Ltd
ACN	008 700 981
Licence Number	L4503/1975/14
File Number:	DER2013/000901
Premises	Mt Whaleback/Orebody 29/30/35 Tenements E52/2009-1, ML244SA, G52/19-G52/27, G52/276, G52/277, G52/279; and Special Leases K858923 and N088235 NEWMAN WA 6753
Date of amendment	21 April 2017

Amendment

The Chief Executive Officer (CEO) of the Department of Environment Regulation (DER) has amended the above licence in accordance with section 59 of the *Environmental Protection Act 1986* as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act and follows.

Date signed: 20 April 2017

Alana Kidd

Manager Licensing – Resource Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment for Category 61 and 85B. No changes to the aspects of the original licence relating to Category 5, 6, 54, 64 and 73 activities have been requested by the Licensee.

The following DER Guidance Statements have informed the decision made on this amendment.

- *Guidance Statement: Regulatory Principles* (July 2015);
- *Guidance Statement: Setting Conditions* (October 2015);
- *Guidance Statement: Decision Making* (February 2017);
- *Guidance Statement: Risk Assessment* (February 2017); and
- *Guidance Statement: Environmental Siting* (November 2016).

Amendment Description

On 11 January 2017, BHP Billiton Iron Ore Pty Ltd (Licensee) submitted an application to DER under section 59B of the EP Act for an amendment to the Mt Whaleback/Orebody 29/30/35 licence (L4503/1975/14).

The Licensee has applied to make the following changes:

1. Removal of Category 85B for the Newman Water Treatment Plant (WTP) as this will be operated under Registration R2436/2016/1; and
2. To excise the location of the Newman WTP from within the premises boundary.

The Delegated Officer notes registration R2436/2016/1 for the Newman WTP was submitted to DER on 14 December 2016; with the registration fee being paid 4 January 2017. Pursuant to regulation 5A(1) the *Environmental Protection Regulations 1987,* the occupier of premises specified in Part 2 of Schedule 1, which includes Category 85B premises, may apply for registration of those premises.

Decision

The Newman WTP has been previously assessed under W5696/2014/1, which was issued on 18 December 2014. Raw water from three borefields is delivered to the WTP via dedicated potable distribution systems. The WTP removes salts from the raw water to produce potable water. The waste (salts) from the process is reject water. The volume of reject water produced is dependent on the Total Dissolved Solids (TDS) of the raw water. In the worst case scenario of a raw water TDS concentration of 2,000 mg/L the WTP will produce 5.7 megalitres (ML) of blended reject water per day as shown in Table 1.

Table 1: Expected volumes of raw and reject water based on raw water TDS

	Raw Water TDS of 500 mg/L	Raw Water TDS of 1,500 mg/L	Raw Water TDS of 2,000 mg/L
Volume of Raw Water required to produce 16.5 ML/day Potable Water	17.4 ML/day	20.6 ML/day	22.2 ML/day
TDS of the Potable Water	452 mg/L	550 mg/L	600 mg/L
Volume of Reject Water Produced	0.86 ML/day	4.1 ML/day	5.7 ML/day

Currently reject water from the Newman WTP is discharged to the Acid Rock Drainage (ARD) Facility in accordance with Licence L4503/1975/14.

The Licensee is proposing to discharge reject water from the Newman WTP via:

- Tank XD57 where it is blended and re-used on site for dust suppression or disposed of via the Tank XD57 licensed discharge point; or
- The ARD Facility (reject water is not blended prior to this discharge).

Estimated discharge volumes and TDS associated with each waste brine discharge option are shown in Table 2.

Table 2: Estimated discharges associated with the Newman WTP

Discharge Location	Will Waste Water be Blended	Maximum Volume of Unblended Waste Water	Volume of water used in Blending	Maximum Daily Discharge Volume	Maximum TDS of water discharged
ARD Dam and evaporation Ponds	No	5.7 ML/day	0 ML/day	5.7 ML/day	6,257 mg/L
XD57	Yes	5.7 ML/day	11.3 ML/day	17.0 ML/day	2,000 mg/L

The Tank XD57 discharge point is currently approved under Licence (L4503/1975/14) as a contingency discharge in the event that temporary storage and reuse, and tank storage has been exhausted. Water released from the Tank XD57 must comply with a TDS limit of less than 2,000 mg/L and details of the discharge (date, duration, volumes, reason for discharge and TDS levels) are required to be reported to DER in the annual report. Brine reject water from the WTP will only be discharged to the Tank XD57 discharge point in the event that the ARD Facility is temporarily unavailable (e.g. undergoing maintenance).

The ARD Facility consists of a dam, and five shallow evaporation ponds that are designed to retain water to a maximum depth of one metre. The ponds have a compacted clay lined floor to prevent seepage to the natural environment and a combined storage capacity of 560 ML. During periods of low water demand for dust suppression, reject water will be sent to the ARD dam. Reject water will not be blended prior to discharge to the ARD dam and the evaporation ponds as the Licensee has stated that "*this will result in a better water efficiency of the site without impacting on the salt load of these facilities"* (BHP, 2016).

Groundwater monitoring required under Licence (L4503/1975/14) is performed on a network of bores to monitor for seepage from the ARD Facility. Conditions for the continuous monitoring of the volume and monthly monitoring of the pH and TDS levels of brine discharged to the ARD dam and evaporation ponds is a requirement of Licence L4503/1975/14. The existing groundwater monitoring requirements for the ARD dam and evaporation ponds have not been re-assessed at the time of this amendment.

The Delegated Officer considers the existing conditions on Licence L4503/1975/14, in particular the TDS limit for Tank XD57 and the monitoring requirements under Conditions 3.3.1 and 3.5.1 to be adequate to manage the risks associated with the discharges of reject water from the Newman WTP.

Condition 1.2.1 has been updated to separate the RO reject water from the Yarnima Power Station (licensed to discharge to the ARD evaporation ponds only) and the RO reject water from the Newman WTP.

According to the Licensee, in 2016 the maximum inflow to the ARD Facility from the Yarnima Power Station was 1,058 ML/year, which equates to 1,058,000 tonnes per year.

As outlined in Table 2, the maximum daily discharge volume for the Newman WTP to the ARD Facility and XD57 is 5.7 ML/day and 17 ML/day respectively. The Licensee states that *the "reject water will have an estimated TDS ranging from 2,758 mg/L to 6,257 mg/L (depending on raw water quality)"*.

Condition 1.2.3 has been updated so that RO brine from the Newman WTP can now be discharged to the Tank XD57 discharge point (existing licence has the ARD evaporation ponds only).

Other amendments

During this amendment the following changes have also been made to the licence:

- The design capacity for Category 61 has been increased from 5,100 tonnes per annual period (tpa) to 9,348,600 tpa, due to the WTP reject water (5.7 ML/day and 17 ML/day), now triggering Category 61 of Schedule 1 of the *Environmental Protection Regulations 1987* (premises on which liquid waste produced on other premises is stored, reprocessed, treated or irrigated). The reject water produced from the Newman WTP is to be directed to the Tank XD57 located at Mt Whaleback for reuse onsite for dust suppression or discharged to the Mt Whaleback ARD Facility (as per current processes);
- Update of the Controlled Waste category in Table 1.2.1 to align with the new controlled waste category list (July 2014); and
- Improvement condition 4.1.1 has been removed from the Licence under this Notice. The Licensee submitted the document *"Risk Assessment – Mount Whaleback AMD Facility"* (RPS, 5 December 2016) to DER on 5 December 2016 to satisfy condition 4.1.1.

Separate to this Notice, the Licence is currently being reviewed by DER to align the licence with DER's risk based Regulatory Framework. The ARD Facility will be reviewed during this time.

DER is also implementing changes to update the Licence in accordance with recent administrative changes, as follows:

- Addition of definitions for 'Anniversary Date', 'Annual Audit Compliance Report', 'Department' and updates to the definition of 'Annual Period' and 'CEO for the purpose of correspondence';
- Updates to the Annual Audit Compliance Report reporting requirements specified under condition 5.2.1; and
- Removal of the Annual Audit Compliance Report Template from Schedule 2.

Amendment History

Table 1 provides the amendment history for L4503/1975/14.

Table 1: Licence amendments

Instrument	Issued	Amendment
L4503/1975/13	22/12/2011	Licence amendment to increase capacity of Category 5 to 58 million tonnes per annum, change premises boundary and include Category 61 to the Licence
L4503/1975/13	16/02/2012	Licence amendment to include Category 85B constructed under W4972/2011/1
L4503/1975/13	7/11/2012	Licence amendment to incorporate three additional water treatment cells to the existing Newman temporary water treatment plant
L4503/1975/14	9/10/2014	Licence amendment to include additional discharge points and convert to new format
L4503/1975/14	11/06/2015	Licence amendment to include two inert landfills, oily water separator treated wastewater evaporation pond and contingency discharge point, extension of the hydrodynamic trial timeframe and disposal of used conveyor belts

L4503/1975/14	28/04/2016	Licence amendment to extend the duration of the hydrodynamic trial
L4503/1975/14	30/06/2016	Licence amendment to include Category 6, increase Category 73 approved design capacity, contingency discharge of Reverse Osmosis (RO) reject water to Ophthalmia Dam, increase in RO reject water discharge to Acid Mine Drainage (AMD) facility, remove wastewater treatment plants less than 20 cubic metres per day capacity and updates to monitoring requirements
L4503/1975/14	1/09/2016	Licence amendment to update the premises address and include a new asbestos disposal location
L4503/1975/14	21/04/2017	Amendment Notice 1 Licence amendment to remove Category 85B, increase capacity for Category 61 and change premises boundary

Licensee's Comments

The Licensee was provided with the draft Amendment Notice on 17 March 2017. No comments were received from the Licensee.

Amendment

1. Page 1 of the licence is amended by the deletion of the text shown in strikethrough and insertion of the bold text shown in underline below:

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
5	*Processing or beneficiation of metallic or non-metallic ore*	*50 000 tonnes or more per year*	*80 000 000 tonnes per annual period*
6	*Mine dewatering*	*50,000 tonnes or more per year*	*80 000 000 tonnes per annual period*
54	*Sewage facility*	*100 cubic metres or more per day*	*183.2 cubic metres per day*
61	*Liquid waste facility*	*100 tonnes or more per year*	***9,348,600*** ~~*5 100*~~ *tonnes per annual period*
64	*Class II putrescible landfill site*	*20 tonnes or more per year*	*6 000 tonnes per annual period*
73	*Bulk storage of chemicals, etc.*	*1 000 cubic metres in aggregate*	*11 749 cubic metres*
~~*85B*~~	~~*Water desalination plant*~~	~~*0.50 gigalitres or more per year*~~	~~*4.38 gigalitres per annual period*~~

2. Page 4 of the licence is amended by the deletion of the text shown in strikethrough below and insertion of the bold text shown in underline below:

A ***temporary*** *RO water treatment plant (WTP) with a design capacity of 12 ML/day* ***previously*** *operate****d***~~*s*~~ *at the site****.*** ~~*and produces potable water for the town of Newman. The plant can produce up to 6 ML/day of reject water depending on the nature of the source water.*~~ *BHPBIO has* ***installed a new permanent WTP (with bypass) at the same location. The permanent WTP has a capacity of*** ~~*recently completed construction of an upgraded,*~~ *16.5 ML/day* ***and is required for the long-term supply of potable water to both the town of Newman and BHPBIO mining operations. The new permanent WTP operates under R2436/2016/1, with*** ~~*capacity WTP to replace the existing facility. The new WTP is currently in the commissioning phase. The*~~ *reject water* ~~*is*~~ *discharged to* ***the XD57 tank and*** *AMD* ***dam and*** *evaporation ponds. DMP have approved the use of the AMD evaporation ponds for this use.*

3. The licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below for section 1.1.2:

'Anniversary Date' means 1 July of each year;

'Annual Audit Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department's website;

'Aannual Pperiod' *means* ***a 12 month*** *~~the inclusive~~ period* ***commencing*** *from 1 July until 30 June in the following year;*

'CEO' *for the purpose**s*** *of* ***notification*** *~~correspondence~~ means;*

Chief Executive Officer
Department ***Division 3, Part V of*** *~~Administering~~ the Environmental Protection Act 1986*
Locked Bag 33 ***Cloisters Square***
PERTH *~~CLOISTERS SQUARE~~ WA 6850*
~~Email:~~ info@der.wa.gov.au;

'Department' means the department established under section 35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986;

4. Condition 1.2.1 of the licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below:

1.2.1 The Licensee shall only accept waste on to the landfill, asbestos disposal areas, sewage treatment plants and liquid waste facility if:
(a) it is of a type listed in Table 1.2.1;
(b) the quantity accepted is below any quantity limit listed in Table 1.2.1; and
(c) it meets any specification listed in Table 1.2.1 .

Table 1.2.1: Waste acceptance		
Waste type	***Quantity limit***	***Specification*** [1]
Inert Waste Type 1	*6 000 tonnes/year*	*None specified*
Inert Waste Type 2		*Tyres and plastic only*
Putrescible Waste		*None specified*
Clean Fill		*None specified*
Special Waste Type 1		*Cement bonded and fibrous asbestos*
Controlled waste ***C****~~c~~ategory* ***J****~~6~~: Oils ~~and emulsions~~*	*5 100 tonnes/year*	*None specified*
RO reject water discharge ***Yarnima Power Station (RO Water Treatment Plant, blowdown water from heat recovery system generation and cooling tower)***	***1,058,000*** *~~11 800~~ tonnes/year ~~Total Dissolved Solids~~ ~~2 000 ML/yr~~*	*Discharged to AMD evaporation ponds with a Total Dissolved Solids less than 5 900 mg/L*
RO reject water discharge (Newman Water Treatment Plant)	***6,205,000 tonnes/year***	***Discharged to XD57 with Total Dissolved Solids less than 2 000 mg/L***
	2,080,500 tonnes/year	*Discharged to AMD evaporation ponds with a Total Dissolved Solids less than ~~5 900~~* ***6 257 mg/L***

Sewage	*183.2 m^3/day*	*Accepted through sewer inflow(s) only*

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004.*

5. Condition 1.2.3 of the licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below:

1.2.3 The Licensee shall ensure that wastes accepted onto the landfill, sewage treatment facility and liquid waste facility are only subjected to the process(es) set out in Table 1.2.2 and in accordance with any process limits described in that Table.

Table 1.2.2: Waste processing		
Waste type(s)	***Process***	***Process limits [1,2]***
All	*Disposal of waste by landfilling*	*Shall only take place within the areas shown in Schedule 1.* *No waste shall be temporarily stored or landfilled within 35 m from the boundary of the premises.* *The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.*
Clean Fill *Inert Waste Type1*	*Receipt, handling and disposal by landfilling*	*None specified*
Inert Waste Type 2 – Tyres[1] and used conveyor belts	*Receipt, handling, storage prior to disposal by landfilling*	*To be stored in piles of up to 100 units with a 6 m separation distance between piles.* *Shall only be buried in overburden storage areas located within the prescribed premises boundary shown in Schedule 1.*
Putrescible Waste	*Receipt, handling, storage prior to disposal by landfilling*	*Shall only be placed in the putrescible landfill shown in Schedule 1.*
Special Waste Type 1 (Asbestos Waste[2])	*Receipt, handling and disposal by landfilling*	*Shall only be disposed of into the designated asbestos disposal area shown in Schedule 1.* *Not to be deposited within 2m of the final tipping surface of the landfill.* *No works shall be carried out on the landfill that could lead to a release of asbestos fibres.*
Controlled waste: oils and emulsions	*Receipt, handling and storage prior to removal from site*	*Only stored in designated storage tanks as depicted in Schedule 1.*
RO brine ***(Yarnima Power Station)***	*Receipt and disposal by evaporation*	*Only disposed of at the AMD evaporation ponds as depicted in Schedule 1.*
RO brine (Newman Water Treatment Plant)	***Receipt and disposal by evaporation and discharge point***	***Disposed of at the AMD evaporation ponds or Tank XD57 (L2) as depicted in Schedule 1.***

		Total Dissolved Solids limit of <2 000 mg/L must be met prior to disposal at Tank XD57.
Tailings	*Treatment and storage*	*Only stored in Tailings Storage Facility (TSF) as depicted in Schedule 1.* *A minimum freeboard of 300 mm maintained at the TSF.*
Sewage	*Biological, physical and chemical treatment*	*None specified*
Sewage sludge	*Drying and storage*	*None specified*

Note 1: Requirements for landfilling tyres are set out in Part 6 of the Environmental Protection Regulations1987.
Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the Environmental Protection (Controlled Waste) Regulations 2004.

6. Condition 4.1.1 of the licence is amended by the deletion of the text shown in strikethrough below:

~~*4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.*~~

~~***Table 4.1.1: Improvement program***~~		
~~***Improvement reference***~~	~~***Improvement***~~	~~***Date of completion***~~
~~*IR1*~~	~~*The Licensee shall submit to the CEO a report that:*~~ ~~*(a) Identifies the location of the groundwater monitoring bores used to monitor ambient groundwater at the AMD facility;*~~ ~~*(b) Provides results from the previous ten (10) years of monitoring for the existing groundwater monitoring program at the AMD facility, including an analysis of results to identify trends in water quality;*~~ ~~*(c) Includes a summary of the fate-dispersion modelling and independent risk assessment of the existing AMD facility; and*~~ ~~*(d) Contains as appendices copies of the relevant consultant reports.*~~	~~*31 December 2016*~~

7. Condition 5.1.2 of the licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below:

5.1.2 The Licensee ***must submit*** ~~*shall complete*~~ ***to the CEO within 90 days after the Anniversary Date,*** *an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions* ***in this*** ~~*of the*~~ *Licence*~~*, and any previous licence issued under Part V of the Act for the Premises*~~ *for the* ~~*previous*~~ ***A****a**nnual* ***P****p**eriod.*

8. Condition 5.2.1 of the licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below:

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 October each year. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	***Parameter***	***Format or form***~~***1***~~

-	*Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken*	*None specified*
-	*Details of all dust control initiatives*	*None specified*
-	*Target and Limit exceedances*	*None specified*
Table 3.2.1 (W1)	*Surface water monitoring results*	*None specified*
Table 3.2.1 (W2)	*W2 emergency discharge to Whaleback Creek for each discharge event:* • *monitoring results;* • *date and duration of the discharge; and* • *reason for discharge.*	*None specified*
Table 3.3.1	*L1 - Volume, pH, BOD, TSS, TN, TP, E.coli, TRH and a comparison of monitoring results against the "Australian Guidelines for Sewerage Systems – Effluent Management", Australian and New Zealand Environment and Conservation Council, 1997.*	*None specified*
Table 3.3.1	*L2 and L3 contingency discharge for each discharge event:* • *monitoring results;* • *date and duration of the discharge; and* • *reason for discharge.*	*None specified*
Table 3.4.1	*Input monitoring results*	*None specified*
Table 3.5.1	*P1 and P2 - Process monitoring results*	*None specified*
	P4 for discharge event: • *monitoring results; and* • *date and duration of the discharge.*	
Table 3.6.1	*PM_{10} monitoring results*	*None specified*
Table 3.6.2	*Ambient surface water monitoring results and a comparison of results against established trigger values. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances and a discussion of any trends identified*	*None specified*
Table 3.6.3	*Ambient groundwater monitoring results*	*None specified*
5.1.2	*Compliance*	~~*Annual Audit Compliance Report*~~ ***None specified***
5.1.3	*Complaints summary*	*None specified*

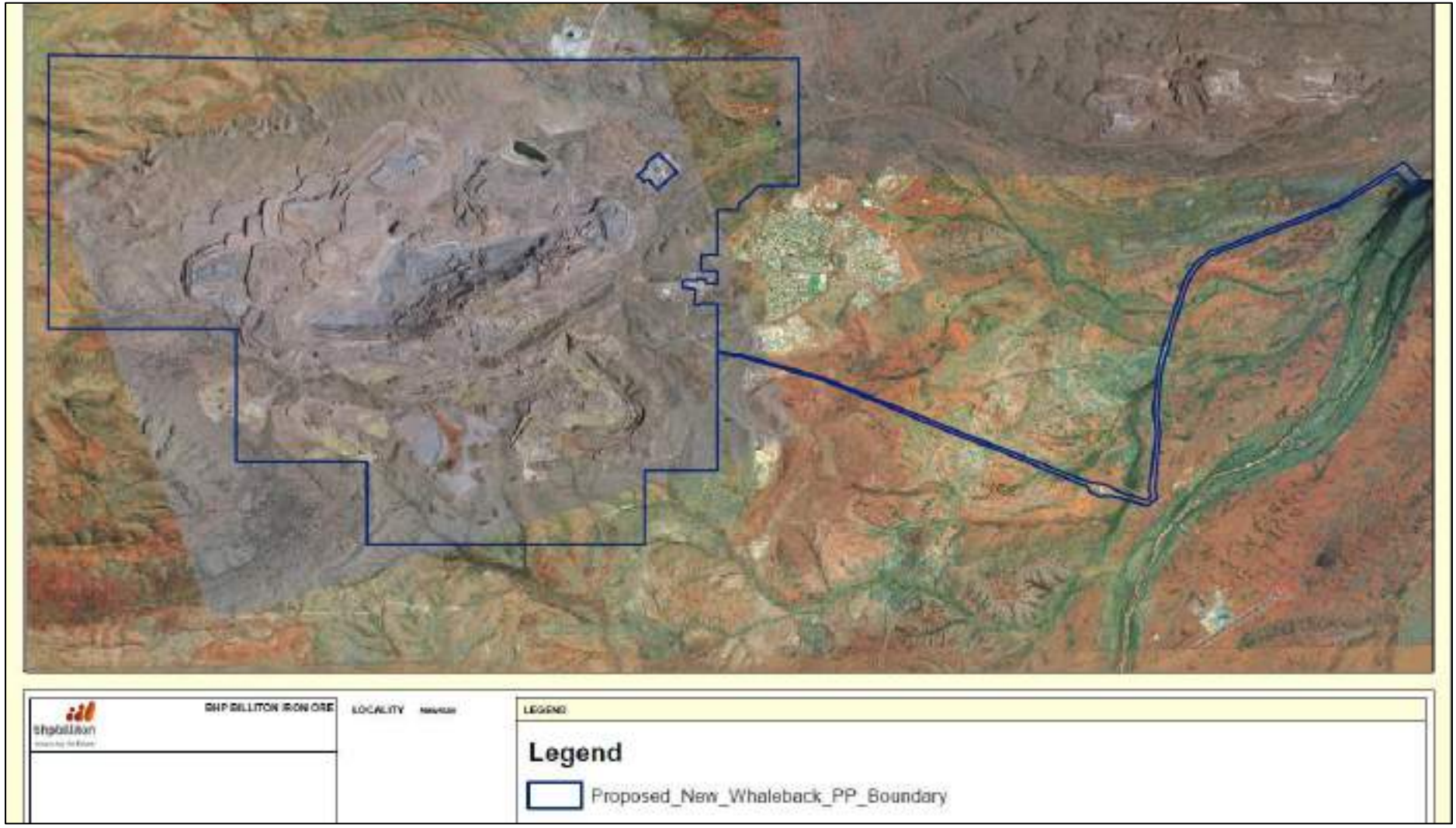
~~*Note 1: Forms are in Schedule 2*~~

9. The Premises map in Schedule 1 is deleted and replaced with the map in Attachment 1 of this Amendment Notice.

10. The licence is amended by the deletion of the Annual Audit Compliance Report Proforma in Schedule 2.

Attachment 1: Premises map

The Premises is shown in the map below. The blue line depicts the Premises boundary.



Appendix 1: Key Documents

	Document Title	In text ref	Availability
1	DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.		**accessed at** http://www.der.wa.gov.au
2	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.		
3	DER, November 2016. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.		
4	DER, November 2016. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.		
5	Email: "Licence L4503/1975/14 – Mt Whaleback – amendment application", received from Tricia Merson (BHP Billiton Iron Ore Pty Ltd), dated 9 January 2017	BHP, 2017a	DER records (A1354811)
6	Email "RE: Licence L4503/1975/14 – Mt Whaleback – amendment application", received from Tricia Merson (BHP Billiton Iron Ore Pty Ltd), dated 11 January 2017	BHP, 2017b	DER records (A1356359)
7	Licence L4503/1975/14 – Mt Whaleback/Orebody 29/30/35	L4503/1975/14	**accessed at** http://www.der.wa.gov.au
8	Ministerial Statement 963	MS 963	**accessed at** http://www.epa.wa.gov.au
9	Newman Water Treatment Plant, Supporting Documentation for Registration Application of the Newman Water Treatment Plant, BHP Billiton Iron Ore Pty Ltd, December 2016	BHP, 2016	DER records (A1345414)
10	Registration R2436/2016/1 – Newman Water Treatment Plant	R2436/2016/1	**accessed at** http://www.der.wa.gov.au
11	Works Approval W5696/2014/1 – Mt Whaleback Water Treatment Plant	W5696/2014/1	

Government of Western Australia
Department of Environment Regulation

Your ref: L4503/1975/14
Our ref: DER2013/000901
Enquiries: Haley Brunel
Phone: 9182 2034
Fax: 9144 1118
Email: haley.brunel@der.wa.gov.au

Dr Mark Alchin
Environment Superintendent – Eastern Mines
BHP Billiton Iron Ore Pty Ltd
PO Box 655
NEWMAN WA 6753

Dear Dr Alchin

***ENVIRONMENTAL PROTECTION ACT 1986* - AMENDMENT TO LICENCE L4503/1975/14**
Premise name: Mt Whaleback/Orebody 29/30/35
Premises Location: NEWMAN WA 6753

Further to my letter dated 18 August 2016, please find enclosed your amended *Environmental Protection Act 1986* Licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on 9182 2034 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

If you have any questions please contact Haley Brunel on 9182 2034.

Yours sincerely,

Alana Kidd
Manager Licensing – Resource Industries
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Thursday, 1 September 2016

Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: **BHP Billiton Iron Ore Pty Ltd**

Licence: **L4503/1975/14**

Registered office: Level 1, City Square Brookfield Place
125 -137 St Georges Terrace
PERTH WA 6000

ACN: 008 700 981

Premises address: Mt Whaleback/Orebody 29/30/35
Tenements E52/2009-I, ML244SA G52/19-G52/27, G52/276, G52/277, G52/279, K858923 and N088235
NEWMAN WA 6753
as depicted in Schedule 1

Issue date: Thursday, 7 November 2013

Commencement date: Sunday, 17 November 2013

Expiry date: Tuesday, 16 November 2032

Prescribed premises category
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
5	Processing or beneficiation of metallic or non-metallic ore	50 000 tonnes or more per year	80 000 000 tonnes per annual period
6	Mine dewatering	50,000 tonnes or more per year	80 000 000 tonnes per annual period
54	Sewage facility	100 cubic metres or more per day	183.2 cubic metres per day
61	Liquid waste facility	100 tonnes or more per year	5 100 tonnes per annual period
64	Class II putrescible landfill site	20 tonnes or more per year	6 000 tonnes per annual period
73	Bulk storage of chemicals, etc.	1 000 cubic metres in aggregate	11 749 cubic metres
85B	Water desalination plant	0.50 gigalitres or more per year	4.38 gigalitres per annual period

Conditions
This Licence is subject to the conditions set out in the attached pages.

.....

Alana Kidd
Manager Licensing – Resource Industries
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role
The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements
This licence is issued under Part V of the Act. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:
http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees
If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions
If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary
BHP Billiton Iron Ore Pty Ltd (BHPBIO) operates the Mt Whaleback Orebody 29/30/35 Iron Ore Mine. The Mine is located on tenements E52/2009, ML244SA and G52/19-G52/277 and is approved under the *Iron Ore (Mount Newman) Agreement Act 1964*.

The mine is located approximately five kilometres (km) west of Newman township and commenced operation in 1969. The ore from the Mt Whaleback deposit is combined with the product from smaller adjacent satellite mines to produce the Mt Newman Joint Venture blend. The satellite orebodies (OB), which currently supplement production at Mt Whaleback, include, OB24/25, OB29, OB30 and OB35. Iron Ore from the site is transported approximately 426km by rail to Port Hedland Operations at Nelson Point.

Iron ore at Mt Whaleback is mined by conventional open cut methods. The ore is drilled and blasted and then loaded onto haul trucks and processed using primary and secondary crushers. The ore is then conveyed to the Newman Hub which includes a car dumper, reclaiming facilities stockyards and a crushing and screening plant. The ore with lower iron level is further processed through a beneficiation plant, removing some of the non-ferrous material. Product from the plant is conveyed to stockpiles and the tailings are thickened and pumped to the tailings storage facility (TSF).

Mine dewatering is undertaken to allow mining of ore below the water table. Mine dewater is pumped to the XD57 water storage tank, from where it is used on site for dust suppression and ore processing purposes. Excess mine dewater is discharged to Ophthalmia Dam at a rate of up to 8 gigalitres per annum (GLpa).

Ancillary facilities at the mine site include administration facilities and an industrial area providing maintenance, storage and fabrication support for the mine and rail.

Approximately 15% of mining overburden at Mt Whaleback is potentially acid forming (PAF) pyritic shales. When exposed to the atmosphere, the PAF material oxidise and produce significant heat and sulfur dioxide and carbon dioxide gases. When combined with water these materials can produce dilute sulfuric acid, commonly known as Acid Mine Drainage (AMD). The existing AMD facility was constructed to manage the AMD at Mt Whaleback, and consists of a dam and five shallow evaporation ponds. The ponds have a compacted clay lined floor to prevent seepage and a storage capacity of 560 megalitres (ML).

A liquid waste facility is located at the mine site. Liquid waste is collected from other BHPBIO sites and transported by controlled waste contractor to the liquid waste facility. The liquid waste consists only of waste oil and is stored onsite in a purpose built tank. The waste oil is then transferred to larger trucks for transport by controlled waste carrier to the treatment facility in Kalgoorlie.

Wastewater from the Yarnima Power Station (L8803/2013/1) reverse osmosis (RO) water treatment plant (WTP) and blowdown water from the heat recovery system generation and the cooling tower is discharged into the AMD evaporation ponds. A pipeline carries the water from the Yarnima site to the evaporation ponds. The peak flow of reject water from the power station and

WTP is expected to be approximately 5.5 ML per day and the reject water will have a Total Dissolved Solids (TDS) concentration of up to 5,900 mg/L. The Licensee also has a contingency option for RO reject water disposal which involves up to 6 ML per day of RO reject water being discharged to Ophthalmia Dam for a period of up to 8 weeks per annual period.

BHPBIO operates inert landfills, a putrescible landfill and a tyre dump at the site which accepts waste material generated onsite. There are also two asbestos disposal sites operated onsite which accept Type 1 Special Wastes (Asbestos) contained within demolition debris waste from onsite and from other BHPBIO premises in the vicinity of Newman. Fibrous material from drill holes during exploration and production drilling is also disposed of at the asbestos disposal sites. Bulk fuel storage facility on site consists of 3 steel vertical tanks which have the capacity to store up to 11,749 cubic metres of fuel. The facility is compliant with Australian standards and is fitted with high level alarms.

The site has eight sewage treatment facilities (STF) located around the premises. Six of the plants discharge treated effluent to designated irrigation areas, one discharges to a lined evaporation pond and one to an unlined evaporation/infiltration pond.

A RO water treatment plant (WTP) with a design capacity of 12 ML/day operates at the site and produces potable water for the town of Newman. The plant can produce up to 6 ML/day of reject water depending on the nature of the source water. BHPBIO has recently completed construction of an upgraded, 16.5 ML/day capacity WTP to replace the existing facility. The new WTP is currently in the commissioning phase. The reject water is discharged to the AMD evaporation ponds. DMP have approved the use of the AMD evaporation ponds for this use.

This Licence is the result of an amendment sought by the Licensee to update the premises address and include an additional asbestos disposal location within the premises boundary.

The licences and works approvals issued for the Premises since 17/11/2000:

Instrument log		
Instrument	**Issued**	**Description**
L4503/1975/5	17/11/2000	First licence noted in the Industry Licensing System
L4503/1975/6	17/11/2001	Licence reissue
L4503/1975/7	17/11/2002	Licence reissue
L4503/1975/8	17/11/2003	Licence reissue
L4503/1975/9	17/11/2004	Licence reissue
L4503/1975/10	17/11/2005	Licence reissue
L4503/1975/11	17/11/2006	Licence reissue
W4255/2006/1	8/03/2007	Works approval for the construction of processing infrastructure (car dumper, crushing and screening plant and ore stockyard)
L4503/1975/12	17/11/2007	Licence reissue
L4503/1975/13	17/11/2010	Licence reissue
W4972/2011/1	4/08/2011	Works approval for category 85B
W5017/2011/1	6/10/2011	Works approval for the installation of a Biomax wastewater treatment plant (STF) and hydrocarbon storage area at the expanded warehouse
W5024/2011/1	6/10/2011	Works approval for the installation of a Biomax STF at the new drug and alcohol testing facility at the Newman gatehouse
L4503/1975/13	22/12/2011	Licence amendment to increase capacity of category 5 to 58Mtpa, change premises boundary and include category 61 to the licence
L4503/1975/13	16/02/2012	Licence amendment to include category 85B constructed under W4972/2011/1
W5242/2012/1	6/09/2012	Works approval to construct a new movable (mobile) crushing and screening plant, with a design capacity of 5Mtpa
L4503/1975/13	7/11/2012	Licence amendment to incorporate three additional water treatment cells to the existing Newman temporary water treatment plant
L4503/1975/14	7/11/2013	Licence reissue
L4503/1975/14	9/10/2014	Licence amendment – additional discharge points and REFIRE format
L4503/1975/14	11/06/2015	Licence amendment – two inert landfills, oily water separator

		treated wastewater evaporation pond and contingency discharge point, extension of the hydrodynamic trial timeframe and disposal of used conveyor belts
L4503/1975/14	28/04/2016	Licence amendment to extend the duration of the hydrodynamic trial.
L4503/1975/14	30/06/2016	Licence amendment to include category 6, increase category 73 approved design capacity, contingency discharge of RO reject water to Ophthalmia Dam, increase in RO reject water discharge to AMD facility, remove WWTPs less than 20 m^3 per day capacity and updates to monitoring requirements.
L4503/1975/14	1/09/2016	Licence amendment to update the premises address and include a new asbestos disposal location.

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'Acceptance Criteria' has the meaning defined in Landfill Definitions;

'AMD' means Acid Mine Drainage;

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'AS 3580.1.1' means the Australian Standard AS 3580.1.1 *Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment;*

'AS 3580.9.11' means the Australian Standard AS 3580.9.11 *Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM_{10} beta attenuation monitors;*

'AS/NZS 5667.1' means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples;*

'AS/NZS 5667.4' means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made;*

'AS/NZS 5667.6' means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams;*

'AS/NZS 5667.10' means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters;*

'AS/NZS 5667.11' means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters;*

'asbestos' means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysolite, crocidolite, tremolite and any mixture containing 2 or more of those;

'asbestos fibres' has the meaning defined in the Guidelines for Assessment, Remediation and Management of Asbestos Contaminated Sites, Western Australia, (DOH, 2009);

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

'Clean Fill' has the meaning defined in Landfill Definitions;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations* 2004;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au;

'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'Inert Waste Type 1' has the meaning defined in Landfill Definitions;

'Inert Waste Type 2' has the meaning defined in Landfill Definitions;

'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

'Licence' means this Licence numbered L4503/1975/14 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'PM' means total particulate matter including both solid fragments of material and miniscule droplets of liquid;

'PM_{10}' means particles with an aerodynamic diameter of less or equal to 10 µm;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'Putrescible' has the meaning defined in Landfill Definitions;

'quarterly' means the 4 inclusive periods from, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March, 1 April to 30 June;

'rehabilitation' means the completion of the engineering of a landfill cell and includes capping and/or final cover;

'RO' means reverse osmosis;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'Special Waste Type 1' has the meaning defined in Landfill Definitions;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'STF' means sewage treatment facility;

'STP dry' means standard temperature and pressure (0°Celsius and 101.325 kilopascals respectively), dry;

'tipping area' means the area of the landfill in which waste other than cover material is being deposited;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

'µS/cm' means microsiemens per centimetre.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 Premises operation

1.2.1 The Licensee shall only accept waste on to the landfill, asbestos disposal areas, sewage treatment plants and liquid waste facility if:
(a) it is of a type listed in Table 1.2.1;
(b) the quantity accepted is below any quantity limit listed in Table 1.2.1; and
(c) it meets any specification listed in Table 1.2.1 .

Table 1.2.1: Waste acceptance

Waste type	Quantity limit	Specification [1]
Inert Waste Type 1	6 000 tonnes/year	None specified
Inert Waste Type 2		Tyres and plastic only
Putrescible Waste		None specified
Clean Fill		None specified
Special Waste Type 1		Cement bonded and fibrous asbestos
Controlled waste category 6: oils and emulsions	5 100 tonnes/year	None specified
RO reject water discharge	11 800 tonnes/year Total Dissolved Solids 2 000 ML/yr	Discharged to AMD evaporation ponds with a Total Dissolved Solids less than 5 900 mg/L
Sewage	183.2 m^3/day	Accepted through sewer inflow(s) only

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.2.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.2.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.2.3 The Licensee shall ensure that wastes accepted onto the landfill, sewage treatment facility and liquid waste facility are only subjected to the process(es) set out in Table 1.2.2 and in accordance with any process limits described in that Table.

Table 1.2.2: Waste processing

Waste type(s)	Process	Process limits [1,2]
All	Disposal of waste by landfilling	Shall only take place within the areas shown in Schedule 1. No waste shall be temporarily stored or landfilled within 35 m from the boundary of the premises. The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.

Clean Fill Inert Waste Type1	Receipt, handling and disposal by landfilling	None specified
Inert Waste Type 2 – Tyres[1] and used conveyor belts	Receipt, handling, storage prior to disposal by landfilling	To be stored in piles of up to 100 units with a 6 m separation distance between piles. Shall only be buried in overburden storage areas located within the prescribed premises boundary shown in Schedule 1.
Putrescible Waste	Receipt, handling, storage prior to disposal by landfilling	Shall only be placed in the putrescible landfill shown in Schedule 1.
Special Waste Type 1 (Asbestos Waste[2])	Receipt, handling and disposal by landfilling	Shall only be disposed of into the designated asbestos disposal area shown in Schedule 1. Not to be deposited within 2m of the final tipping surface of the landfill. No works shall be carried out on the landfill that could lead to a release of asbestos fibres.
Controlled waste: oils and emulsions	Receipt, handling and storage prior to removal from site	Only stored in designated storage tanks as depicted in Schedule 1.
RO brine	Receipt and disposal by evaporation	Only disposed of at the AMD evaporation ponds as depicted in Schedule 1.
Tailings	Treatment and storage	Only stored in Tailings Storage Facility (TSF) as depicted in Schedule 1. A minimum freeboard of 300 mm maintained at the TSF.
Sewage	Biological, physical and chemical treatment	None specified
Sewage sludge	Drying and storage	None specified

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations1987*.
Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.2.4 The Licensee shall manage the landfilling activities to ensure:
(a) waste is levelled and compacted as soon as practicable after it is discharged;
(b) waste is placed and compacted to ensure all faces are stable and capable of retaining rehabilitation material; and
(c) rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.

1.2.5 The Licensee shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.2.3 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.3: Cover requirements [1]

Waste Type	Material	Depth	Timescales
Inert Waste type 1	N/A	N/A	No cover required
Inert Waste Type 2	Type 1 Inert waste, clean fill or soil	100 mm	As soon as practical following the achievement of final process limits
Putrescible Waste		150 mm	As soon as practicable and not later than weekly
		1 000 mm	Within 3 months of achieving final waste contours
Special Waste Type 1		300 mm	As soon as practicable after deposit and prior to compaction
		1 000 mm	By the end of the working day in which the asbestos waste was deposited

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

1.2.6 The Licensee shall prevent unauthorised access to the landfill.

1.2.7 The Licensee shall ensure that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area on at least a monthly basis.

1.2.8 The Licensee shall manage the wastewater treatment evaporation and infiltration pond such that:
(a) overtopping of the ponds does not occur;
(b) a freeboard at or below 500mm is maintained;
(c) the integrity of the containment infrastructure is maintained; and
(d) vegetation and floating debris (emergent or otherwise) is prevented from encroaching onto pond surfaces or inner pond embankments.

1.2.9 The Licensee shall manage the wastewater treatment vessels such that:
(a) overtopping of the wastewater treatment vessels does not occur;
(b) stormwater runoff is prevented from entering the wastewater treatment vessels; and
(c) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the wastewater treatment vessels.

1.2.10 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds listed in Table 1.2.4 and identified in Schedule 1 in accordance with the requirements specified within Table 1.2.4.

Table 1.2.4: Containment Infrastructure

Storage vessel or compound	Material	Requirements
P2 OWWTP evaporation pond	Treated water from the Mobile Equipment Workshop oily water separator	• 1.5 mm HDPE lined evaporation pond to achieve a permeability of $<10^{-9}$ m/s; and • minimum vertical freeboard of 300 mm during normal operations
EPCO STF unlined pond	Treated wastewater from EPCO STF	• minimum vertical freeboard of 500 mm during normal operations

2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this licence.

2.2 Point source emissions to surface water

2.2.1 The Licensee shall ensure that where waste is emitted to surface water from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 2.2.1: Emission points to surface water

Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement
W1	W1 – Ophthalmia Dam discharge point	Discharge to Ophthalmia Dam	Water abstracted from Orebody 29/30/35
		Contingency discharge of RO reject water for a period of up to eight (8) weeks per annual period	Reject water from Newman Water Treatment Plant and Yarmina Power Station
W2	W2 – Whaleback Creek discharge point	Emergency discharge to Whaleback Creek in the event that reuse and storage of water have been exhausted	Stormwater from West End of Whaleback Pit

2.2.2 The Licensee shall not cause or allow point source emissions to surface water greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to surface water

Emission point reference	Parameter	Limit (including units)	Averaging period
W1	Volume of mine dewater discharged from Orebody 29/30/35	8 GL per annum	Continuous
	Volume of RO reject water discharged to Ophthalmia Dam	Average of 6ML/day for up to 8 weeks per annum	Continuous
W1 – W2	Total Recoverable Hydrocarbons (TRH)	15 mg/L	Spot sample

2.3 Emissions to land

2.3.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.3.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 2.3.1: Emissions to land

Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement
L1	EPCO Sewage Discharge Ponds	Discharge from EPCO STF to unlined pond	Treated wastewater from EPCO STF

L2	L2	Contingency discharge from Tank XD57 in the event that temporary storage and reuse and tank storage has been exhausted	Excess water for processing and dust suppression
L3	Hub Turkeys Nest discharge	Contingency discharge from Hub Turkeys Nest in the event that temporary storage and reuse, and Turkeys Nest storage has been exhausted	Excess water for processing and dust suppression

2.3.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.3.2.

Table 2.3.2: Emission limits to land

Emission point reference	Parameter	Limit (including units)	Averaging period
L2 and L3	Total Dissolved Solids	<2000 mg/L	Spot Sample

3 Monitoring

3.1 General monitoring

3.1.1 The Licensee shall ensure that:
(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1, with the exception of holding times where these are not achievable;
(b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
(c) all surface water sampling is conducted in accordance with AS/NZS 5667.4 or AS/NZS 5667.6 as relevant;
(d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
(e) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters to be measured unless indicated otherwise in the relevant table.

3.1.2 The Licensee shall ensure that:
(a) monthly monitoring is undertaken at least 15 days apart; and
(b) quarterly monitoring is undertaken at least 45 days apart.

3.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of point source emissions to surface water

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to surface water

Emission point reference	Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
W1	Flow meter to discharge point	Volumetric flow rate (cumulative)	ML/day	Monthly	Continuous when discharging
	Discharge point	pH[1]	pH units	Spot sample	Quarterly when discharging
		Total dissolved solids (TDS)	mg/L		
		Total suspended solids (TSS)			
		Total recoverable hydrocarbons (TRH)			
		Aluminium (Al)			
		Arsenic (As)			
		Boron (B)			
		Calcium (Ca)			
		Cadmium (Cd)			
		Chloride (Cl)			
		Carbonate (CO3)			
		Chemical Oxygen Demand (COD)			
		Chromium (Cr)			

		Copper (Cu)			
		Iron (Fe)			
		Bicarbonate (HCO3)			
		Mercury (Hg)			
		Potassium (K)			
		Magnesium (Mg)			
		Manganese (Mn)			
		Molybdenum (Mo)			
		Sodium (Na)			
		Nickel (Ni)			
		Nitrate (NO3)			
		Lead (Pb)			
		Selenium (Se)			
		Silver (Ag)			
		Sulfate (SO4)			
		Zinc (Zn)			
W2	Flow meter to discharge point	Volumetric flow rate (cumulative)	ML/day	Monthly	Continuous when discharging
	Discharge point	pH[1]	pH units	Spot sample	Quarterly when discharging
		TDS, TRH, TSS	mg/L		

Note 1: In-field non-NATA accredited analysis permitted.

3.3 Monitoring of emissions to land

3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of emissions to land

Emission point reference	Monitoring point location	Parameter	Units	Averaging Period	Frequency
L1	Flow meter to evaporation pond	Volumetric flow rate (cumulative)	m^3	Quarterly	Continuous
	Prior to discharge to infiltration evaporation pond	pH[1]	pH units	Spot sample	Quarterly
		BOD, TSS, TN, TP	mg/L		
		E.coli	cfu/100ml		
L2-L3	Flow meter to discharge point	Volumetric flow rate (cumulative)	ML/day	Monthly	Each discharge event
	Discharge point	TDS[1]	mg/L	Spot sample	

Note 1: In-field non-NATA accredited analysis permitted.

3.4 Monitoring of inputs and outputs

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Waste Inputs	Inert Waste Type 1 Inert Waste Type 2 Putrescible Waste Clean Fill Special Waste Type 1	tonnes	N/A	Monthly records of total waste arriving at each landfill facility

RO reject water from Yarnima Power Station	Volume	ML	Quarterly	Continuous
	TDS	mg/L	Spot sample	Quarterly

3.5 Process monitoring

3.5.1 The Licensee shall undertake the monitoring in Table 3.5.1 according to the specifications in that table.

Table 3.5.1: Process monitoring

Monitoring point reference and location on map	Process description	Parameter	Units	Limit	Averaging period	Frequency
P1 (Acid Mine Drainage (AMD) Evaporation Cells)	Brine from the Newman Water Treatment Plant to the clay lined AMD evaporation ponds	Volumetric flow rate (cumulative)	m^3/day	N/A	Monthly	Continuous
		pH[1]	pH units	N/A	Spot sample	Quarterly
		TDS	mg/L	N/A		
P2 (OWWTP evaporation pond)	Treated wastewater from the Mobile Equipment Workshop oily water separator	TRH	mg/L	N/A	Spot sample	Quarterly
	Contingency discharge during high rainfall events	Volumetric flow rate	m^3/day	N/A	Monthly	Each discharge event
		TRH	mg/L	15 mg/L	Spot sample	
P3 (Discharge to Ophthalmia Dam)	Contingency discharge of RO reject water to Ophthalmia Dam	Volumetric flow rate (cumulative)	m^3/day	N/A	Spot sample	Weekly when discharging
		pH[1]	pH units	N/A		
		TDS[1]	mg/L	6,000 mg/L		

Note 1: In-field non-NATA accredited analysis permitted.

3.6 Ambient environmental quality monitoring

3.6.1 The Licensee shall undertake the monitoring in Tables 3.6.1, 3.6.2 and 3.6.3 according to the specifications in those tables and record and investigate results that do not meet any target specified.

Table 3.6.1: Monitoring of ambient air quality

Monitoring point reference and location	Parameter	Target	Units	Averaging period	Frequency	Method
Background 3 (WBAQRT011) North Mt Whaleback	Particulates as PM_{10}	N/A	µg/m^3	24 hours	Continuous	AS 3580.9.11
Background 2		N/A				

(WBAQRT004) Corner B Tank						
Newman 1 Town Centre (WBAQRT010)		<70				
Newman 3 (WBAQRT006) McLennan Drive						

Note 1: All units are referenced to STP dry

3.6.2 The Licensee shall ensure that the siting of ambient air monitoring equipment is in accordance with AS 3580.1.1.

Table 3.6.2: Monitoring of ambient surface water quality

Monitoring point reference and location	Parameter	Unit	Averaging period	Frequency
Whaleback Creek upstream (WBSW042) Whaleback Creek downstream (WBSW043) Power station Creek downstream (WBSW049)	pH[1]	-	Spot sample	Quarterly when flowing
	TDS, TSS, TRH, Ag, Al, As, B, Ca, Cd, Cl-, CO_3, COD, Cr, Cu, Fe, HCO_3, Hg, K, Mg, Mn, Mo, Na, Ni, NO_3, Pb, Se, SO_4, TN, TP, Zn	mg/L		

Note 1: In-field non-NATA accredited analysis permitted.

Table 3.6.3: Monitoring of ambient groundwater quality

Monitoring point reference and location	Parameter	Unit	Averaging period	Frequency
WBGW050S WBGW050D WBGW010 WBGW011 WBGW022 WBGW023	pH[1]	-	Spot sample	Quarterly
	Oxidation-reduction potential[1]	Volts (v)		
	Total dissolved solids (TDS)	mg/L		
	Aluminium (Al)	mg/L		
	Antimony (Sb)	mg/L		
	Arsenic (As)	mg/L		
	Bicarbonate (HCO_3^-)	mg/L		
	Cadmium (Cd)	mg/L		
	Calcium (Ca)	mg/L		
	Chloride (Cl^-)	mg/L		
	Chromium (Cr)	mg/L		
	Cobalt (Co)	mg/L		
	Copper (Cu)	mg/L		
	Iron (Fe)	mg/L		
	Mercury (Hg)	mg/L		
	Magnesium (Mg)	mg/L		
	Manganese (Mn)	mg/L		
	Nickel (Ni)	mg/L		
	Lead (Pb)	mg/L		
	Potassium (K)	mg/L		
	Selenium (Se)	mg/L		
	Sodium (Na)	mg/L		
	Sulfate (SO4)	mg/L		
	Thallium (Tl)	mg/L		
	Zinc (Zn)	mg/L		

Note 1: In-field non-NATA accredited analysis permitted.

4 Improvements

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

Table 4.1.1: Improvement program		
Improvement reference	**Improvement**	**Date of completion**
IR1	The Licensee shall submit to the CEO a report that: (a) Identifies the location of the groundwater monitoring bores used to monitor ambient groundwater at the AMD facility; (b) Provides results from the previous ten (10) years of monitoring for the existing groundwater monitoring program at the AMD facility, including an analysis of results to identify trends in water quality; (c) Includes a summary of the fate-dispersion modelling and independent risk assessment of the existing AMD facility; and (d) Contains as appendices copies of the relevant consultant reports.	31 December 2016

5 Information

5.1 Records

5.1.1 All information and records required by the Licence shall:
(a) be legible;
(b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
(c) for the following records, be retained until the expiry of the Licence:
(i) off-site environmental effects;
(ii) matters which affect the condition of the land or waters; and
(iii) records on (i) and (ii) from previous licences.

5.1.2 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 October each year. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	**Parameter**	**Format or form**
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified

-	Details of all dust control initiatives	None specified
-	Target and Limit exceedances	None specified
Table 3.2.1 (W1)	Surface water monitoring results	None specified
Table 3.2.1 (W2)	W2 emergency discharge to Whaleback Creek for each discharge event: • monitoring results; • date and duration of the discharge; and • reason for discharge.	None specified
Table 3.3.1	L1 - Volume, pH, BOD, TSS, TN, TP, *E.coli*, TRH and a comparison of monitoring results against the "Australian Guidelines for Sewerage Systems – Effluent Management", Australian and New Zealand Environment and Conservation Council, 1997.	None specified
Table 3.3.1	L2 and L3 contingency discharge for each discharge event: • monitoring results; • date and duration of the discharge; and • reason for discharge.	None specified
Table 3.4.1	Input monitoring results	None specified
Table 3.5.1	P1 and P2 - Process monitoring results	None specified
	P4 for discharge event: • monitoring results; and • date and duration of the discharge.	
Table 3.6.1	PM_{10} monitoring results	None specified
Table 3.6.2	Ambient surface water monitoring results and a comparison of results against established trigger values. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances and a discussion of any trends identified	None specified
Table 3.6.3	Ambient groundwater monitoring results	None specified
5.1.2	Compliance	Annual Audit Compliance Report
5.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

5.2.2 The Licensee shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
-	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
Table 3.6.1	Target exceedance	Within 21 calendar days	ET1

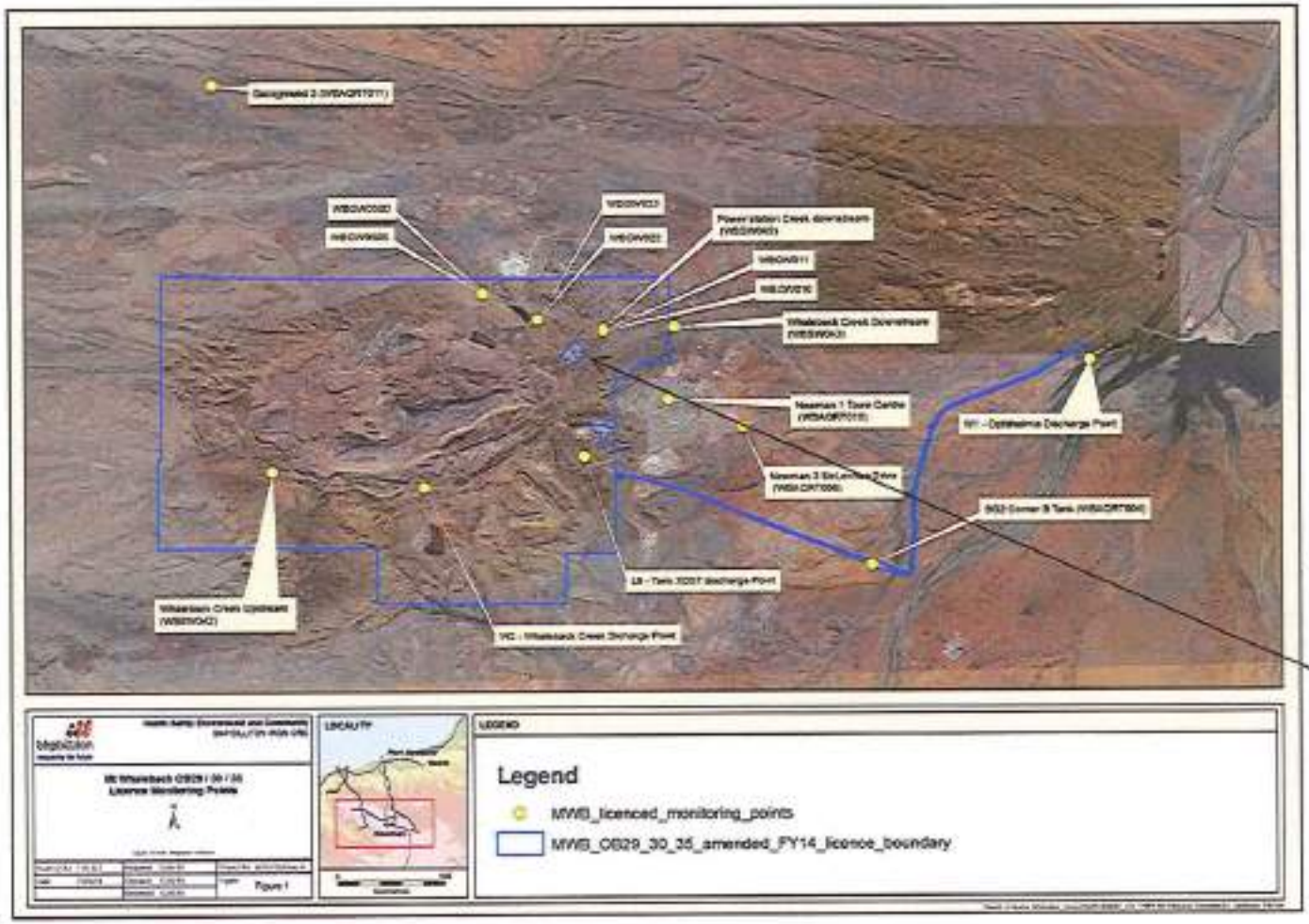
Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2

Schedule 1: Maps

Premises map

The Premises boundary is depicted in blue and the location of the emission points defined in Table 2.2.1 and 2.3.1 and monitoring points defined in Tables 3.2.1, 3.6.1, 3.6.2 and 3.6.3 are shown in the map below.

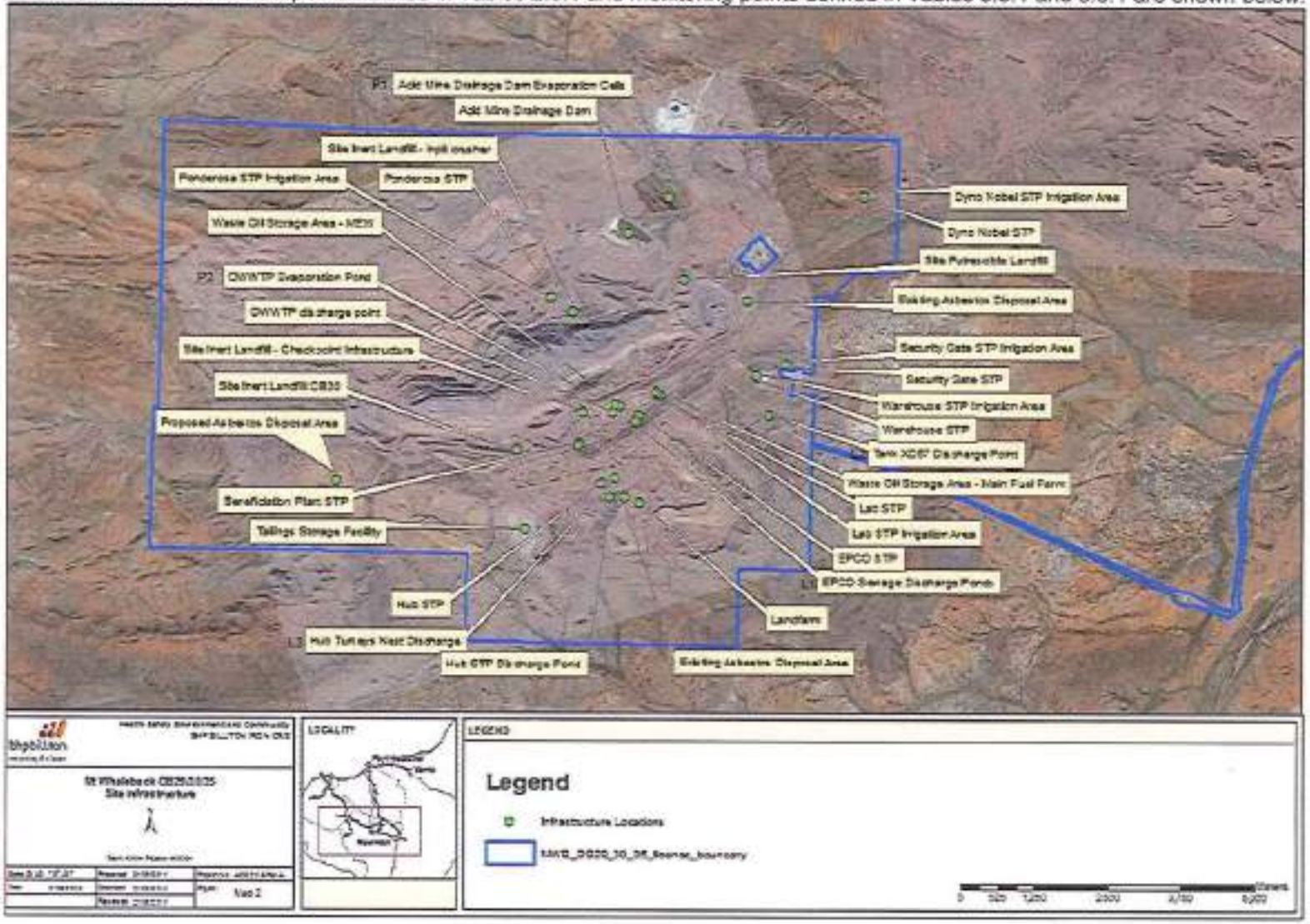


Area excluded from premises boundary

GPS Location ID Waypoint (GDA94 MGA50)	Easting	Northing
A	777440	7415005
B	777114	7415493
C	776994	7415638
D	777006	7415647
E	776975	7415693
F	776957	7415689
G	776944	7415653
H	776800	7415648
I	776778	7415778
J	776845	7415801
K	776921	7415956
L	776968	7415956
M	776994	7416014
N	777146	7415151

Map of emission points

The locations of the emission points defined in Tables 2.3.1 and monitoring points defined in Tables 3.3.1 and 3.5.1 are shown below.



Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name: Trading as:	ABN:
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:

SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
☐ Yes ☐ Reported to DER verbally Date _____ ☐ Reported to DER in writing Date _____	☐ No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:

SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	☐	by the individual licence holder, or
	☐	by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	☐	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
	☐	by two directors of the licensee; or
	☐	by a director and a company secretary of the licensee, or
	☐	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	☐	by the principal executive officer of the licensee; or
	☐	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	☐	by the chief executive officer of the licensee; or
	☐	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of $50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

Licence: L4503/1975/14 Licensee: BHP Billiton Iron Ore Pty Ltd
Form: N1 Date of breach:

Notification of detection of the breach of a limit

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of BHP Billiton Iron Ore Pty Ltd	
Date	

Licence: L4503/1975/14
Form: ET1
Name: Target exceedances

Licensee: BHP Billiton Iron Ore Pty Ltd
Period:

Form ET1: Target exceedances
Please provide an analysis of the target exceedance, including but not limited to: (a) the emission point (b) the root cause analysis for the exceedances; (c) any common or contributory factors; (d) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances; (e) complaints received that may have been caused by this exceedance; and (f) for those exceedances that may have caused complaints, meteorological details: temperature, wind speed and wind direction, humidity.

Signed on behalf of BHP Billiton Iron Ore Pty Ltd: ..... Date: .....

Government of Western Australia
Department of Environment Regulation

Partial Decision Document

Environmental Protection Act 1986, Part V

Proponent: **BHP Billiton Iron Ore Pty Ltd**

Licence: **L4503/1975/14**

Registered office:	Level 1, City Square Brookfield Place 125 -137 St Georges Terrace PERTH WA 6000
ACN:	008 700 981
Premises address:	Mt Whaleback/Orebody 29/30/35 Tenements E52/2009-I, ML244SA, G52/19-G52/274, G52/276, G52/277, G52/279, K858923 and N088235 NEWMAN WA 6753
Issue date:	Thursday, 7 November 2013
Commencement date:	Sunday, 17 November 2013
Expiry date:	Tuesday, 16 November 2032

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Haley Brunel
Licensing Officer

Decision Document authorised by: Alana Kidd
Manager Licensing (Resource Industries)

Contents

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval ☐ New Licence ☐ Licence amendment ☒ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	5	80 million tonnes per annual period
	6	80 million tonnes per annual period
	54	183.2 cubic metres per day
	61	5 100 tonnes per annual period
	64	6 000 tonnes per annual period
	73	11,749 cubic metres
	85B	4.38 gigalitres per annual period
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes☐ No☐ N/A☒	
Compliance Certificate received	Yes☐ No☐ N/A☒	
Commercial-in-confidence claim	Yes☐ No☒	

Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes☒ No☐	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☒ No☐	Referral decision No: 1982 Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☒ No☐	Ministerial statement No: 963 EPA Report No: 1501
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☐ No☒ If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes☐ No☒ If Yes, include details here, eg Site is subject to SO_2 requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

BHP Billiton Iron Ore Pty Ltd (BHPBIO) operates the Mt Whaleback Orebody 29/30/35 Iron Ore Mine. The mine is located on tenements E52/2009, ML244SA and G52/19-G52/277 and is approved under the *Iron Ore (Mount Newman) Agreement Act 1964*.

The mine is located approximately five kilometres (km) west of the Newman township and commenced operation in 1969. Ore from the Mt Whaleback deposit is combined with the product from smaller adjacent satellite mines to produce the Mt Newman Joint Venture blend. The satellite orebodies (OB) which currently supplement production at Mt Whaleback include OB24/25, OB29, OB30 and OB35. Iron Ore from the site is transported approximately 426km by rail to Port Hedland Operations at Nelson Point for export.

Mt Whaleback operates under Licence L4503/1975/14 which BHPBIO has recently applied to amend. BHPBIO has requested that the premises address be updated and that a new asbestos disposal location be included.

DER's assessment and decision making with respect to the proposed asbestos disposal is detailed in Section 4 of this document.

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	**Condition number**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
General conditions	Premises address and Schedule 1	The premises address has been updated to include the additional mining tenements as advised by the Licensee. The maps in Schedule 1 have been updated to include the additional asbestos disposal location.	Guidance Statement *Setting conditions* (DER, October 2015) *Administrative changes implemented within DER*, www.der.wa.gov.au.
Premises operation	Conditions 1.2.1, 1.2.3, 1.2.5	Emission description The Licensee has indicated that a new asbestos disposal location is required for the disposal of asbestos-containing material (ACM), uncovered during recent excavations as part of the routine mining operations at Orebody 35. The material (pipes) has weathered and is mixed with approximately 2,000 cubic metres of excavated material. To minimise the risk of transportation of the ACM across the site to the existing designated asbestos disposal area, it is proposed to encapsulate the material into the overburden storage area at Orebody 35. The overburden storage area is currently being developed and the ACM will be buried under approximately 30 metres of mine waste. Once the ACM has been buried it will not pose any risk to human health or the environment, and the area will not remain an active asbestos disposal area. The location of the disposal area will be noted on the site mine planning layer for closure purposes.	Application supporting documentation General provisions of the *Environmental Protection Act 1986* *Environmental Protection Regulations 1987* *Environmental Protection (Controlled Waste) Regulations 2004* Code of Practice 'How to Manage and Control

DECISION TABLE			
Works Approval / Licence section	**Condition number**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Emission: Release of fibrous materials during storage, transport and disposal of ACM into the waste rock dump. *Impact:* Exposure to airborne asbestos fibres poses a risk to health if inhaled. Fibres that enter the lungs may lead to asbestos-related diseases such as pleural disease, asbestosis, lung cancer and mesothelioma. Workers at Mt Whaleback are the most likely to be exposed as public access to the site is restricted. *Controls:* Material is currently segregated from other waste rock and access is restricted. The loader and truck used to move the ACM are fitted with special filters and the cabs are fully enclosed. No personnel are on the ground outside of the machinery cab when the material is loaded and transported to its current location. The loader and truck used to move the ACM is washed down after handling the material. Access to the material is now restricted and there is no further reason to handle the material. ACM will be encapsulated within the waste rock dump which will neutralise the risk of airborne fibres accessing the environment. It is unlikely that the site will be disturbed as it will not be used as an active asbestos disposal area following disposal of the ACM. A site asbestos register which records the location and amount of asbestos disposed at each location is maintained. Risk Assessment: *Consequence:* Major *Likelihood:* Rare *Risk rating:* Moderate	Asbestos in the Workplace (Safe Work Australia, February 2016)

DECISION TABLE			
Works Approval / Licence section	**Condition number**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
		Regulatory Controls: Condition 1.2.3 specifies that asbestos waste shall only be disposed of into designated asbestos disposal locations shown in Schedule 1, not deposited within 2m of the final tipping surface of the landfill and restricts works that could lead to a release of asbestos fibres. Condition 1.2.5 specifies cover requirements relating to asbestos disposal locations. The premises map in Schedule 1 has been updated to include the additional asbestos disposal location. No further regulatory controls are required to be applied to the Licence. It is also noted that Safe Work Australia's Code of *Practice 'How to Manage and Control Asbestos in the Workplace'* (February 2016), approved under section 274 of the *Work Health and Safety Act* provides practical guidance on how to manage risks associated with asbestos and ACM at the workplace and thereby minimising the incidence of asbestos-related diseases. Residual Risk: *Consequence:* Major *Likelihood:* Rare *Risk rating:* Moderate	
Improvements	Condition 4.1.1	Condition 4.1.1 has been updated to specify the completion date of improvement IR1. Improvement IR2 has been removed as the Licensee has satisfied the requirements of this condition.	N/A

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
18/08/2016	21 day consultation period correspondence	Waiver from received 25 August 2016. No comments on proposed changes.	N/A

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High

Attachment 6A: Emissions and discharges

See Sections 1 to 5.

Attachment 6B: Waste acceptance

Not required.

Attachment 7: Siting and location

See Attachment 2A.

Attachment 8: Supporting document

See Sections 1 to 6.

Attachment 9: Fees

A fee of $57,043.00 is applicable to this licence amendment application (**Table 4**).

Table 4: Licence Fee Calculation

Project Cost Breakdown	Total Cost of Works	Fee Units	Unit Cost	Works Approval Fee
1) Site works: $47,500,000 2) Equipment: $25,000,000 3) Labour: $24,700,000	$97,200,000	1405	$40.60	$57,043.00

Attachment 10: Submission of application

Not Required.