



Licence Number L5850/1993/11

Licence Holder Cliffs Asia Pacific Iron Ore Pty Ltd

ACN 001 892 995

File Number: 2012/002671

Premises

Koolyanobbing Iron Ore Project
KOOLYANOBBING WA 6427

Legal description –

Being part tenement L77/219, M77/606, M77/607,
M77/611, M77/989, M77/990, M77/1278 and E77/1307
as depicted in schedule 1

KOOLYANOBBING WA 6427

Date of Amendment 28 September 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: 28 September 2017

Tim Gentle

Manager Licensing – Resource Industries

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

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
CEO	means Chief Executive Officer of the Department of Water and Environmental Regulation;
CEO	for the purpose of correspondence means; Chief Executive Officer Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 CLOISTERS SQUARE WA 6850 Email: info-der@dwer.wa.gov.au ;
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the Public Sector Management Act 1994 and is responsible for the administration of the Environmental Protection Act 1986 along with other legislation.
<u>DMIRS</u>	<u>Department of Mines, Industry Regulation and Safety</u> As of 1 July 2017 Department of Mines and Petroleum (DMP) became part of the Department of Mines, Industry Regulation and Safety – see https://publicsector.wa.gov.au/public-administration/machinery-government/2017-machinery-government-changes for further details.
Primary Activities	Primary Activities refers to the Prescribed Premises categories listed on the front of the Licence (L5850/1993/11) and in the locations shown in Schedule 1.

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 to the inclusion of definitions, amendments to table 2.4.1 to include emission point L2, removal of monitoring bores MBH1 & MBH2 from condition 3.5.1 table 3.5.1, and replacement of three schedule 1 maps being the "Premises map" and the "Map of emission points" for the WWTP plus the ore wash pad. No changes to the aspects of the original licence relating to Category 5, 6, 54, 57 or 64 have been requested by the Licence Holder.

The following 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)

Amendment description

This Amendment Notice addresses two amendment applications from Cliffs Asia Pacific Iron Ore Pty Ltd (Cliffs).

On 22 June 2017, Cliffs submitted an application to Department of Water and Environmental Regulation (DWER) for an amendment to licence L5850/1993/11. This application relates to the replacement of two maps in schedule 1 of the licence in order to:

- a) Delineate the Koolyanobbing Waste Water Treatment Plant (WWTP) infrastructure and irrigation field for the Category 54 sewage facility; and,
- b) Amend the premises boundary map to reflect the WWTP delineation.

The irrigation field is approved to receive treated wastewater by licence L5850/1993/11. The Amendment Notice 1 recently issued on 24 April 2017 included a map provided by the applicant which inadvertently excluded the approved irrigation area from the Premises boundary map. This is rectified in the current Amendment Notice through amended maps of the WWTP infrastructure plus the premises boundary.

On 7 August 2017, Cliffs made a second application to DWER to amend licence L5850/1993/13 to remove requirements for groundwater bore monitoring associated with rinsing of iron ore. Historically, iron ore was placed onto a wash pad and a sprinkler system rinsed the salt impurities from the ore. The return water was directed to HDPE lined "wash ponds" C3, C4, C5 and C6 for recycling or reuse for dust suppression. It has been several years since iron ore has been rinsed and Cliffs has no intention of washing iron ore in the future. Under the existing Licence, Cliffs is required to monitor the groundwater quality and level from bores (MBH1 and MBH2) to assess primarily the effects of the iron ore washing activities upon local groundwater.

The amendment application requested the bore monitoring requirements be removed and has provided a map minus the bores but retained HDPE lined ponds C3 to C6. DWER completed a review of Cliff's past annual environmental reports and noted no evidence of groundwater contamination that could be attributed to the previous practice of rinsing iron ore at Koolyanobbing.

Wash pond C3 will remain in service as the freshwater supply pond accessing raw water for the Perth to Kalgoorlie supply scheme for use at the ore handling plant (OHP) and across the Koolyanobbing operations. Ponds C4, C5 and C6 receive recovered wash down and storm water from across the site as well as the OHP. The ponds are important control infrastructure

for water supply and dust suppression across the operations including the OHP. As the ponds are critical infrastructure to the processing of iron ore and are required for dust suppression generated from category 5 and 12 “**primary activities**”, they will need to be managed by the licence to prevent discharges to the environment.

The structural integrity of wash ponds C3 to C6 will continue to be regulated by Department of Mines, Industry Regulation and Safety (DMIRS) under the *Mining Act 1978*.

The two amendment applications do not propose any alteration to the production, design capacity, prescribed activities or discharge locations approved under the existing licence.

Amendment history

Table 2 provides the amendment history for L5850/1993/11.

Table 2: Licence amendments

Instrument	Issued	Amendment
L5850/1993/11	24 April 2017	Amendment Notice 1 Incorporate Range “F” deposit plus category 12 and schedule 1 Premises maps.
L5850/1993/11	28 September 2017	Amendment Notice 2 Replace three Schedule 1 maps, amend Table 2.4.1 and remove Table 3.5.1

Decision

The proposed minor amendments entail no change to the risk profile of emissions and discharges from the premises.

The Delegated Officer therefore grants this Amendment Notice without additional conditions.

Amendments to the Licence will comprise:

- Administrative changes to definitions related to “CEO” the recent formation of the new “Department of Water and Environmental Regulation”; “Department of Mines, Industry Regulation and Safety” and defining “Primary Activities”;
- Amend table 2.4.1 to authorise the irrigation of wastewater at the oval and identify the emission point as “L2”;
- Amend condition 3.5.1 by removing table 3.5.1 in its entirety from the licence;
- Amend and replacing three maps in schedule 1 being the “Premises map” and “Map of emission points” for the WWTP and “Map of emission points” for the ore wash pad.

The HDPE lined wash ponds C3 to C6 will remain as containment infrastructure described in table 1.2.1 of the licence. Cliffs will continue to use the ponds to store water for dust suppression activities at the Koolyanobbing operations including the OHP.

Licence Holder’s comments

The Licence Holder was provided with the draft Amendment Notice on 10 August 2017. Comments received from the Licence Holder on 22 August and 1 September 2017 have been considered and addressed by the Delegated Officer as shown in Appendix 2.

Amendment

- Definitions of the Licence are amended by the insertion of the red text shown in underline below:

‘CEO’ means Chief Executive Officer of the Department of Water and Environmental 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@dwer.wa.gov.au;

‘DWER’ means Department of Water and Environmental Regulation - as of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the *Public Sector Management Act 1994* and is responsible for the administration of the *Environmental Protection Act 1986* along with other legislation.

DMIRS means Department of Mines, Industry Regulation and Safety - as of 1 July 2017 Department of Mines and Petroleum (DMP) became part of the Department of Mines, Industry Regulation and Safety – see <https://publicsector.wa.gov.au/public-administration/machinery-government/2017-machinery-government-changes> for further details.

- Condition 2.4.1 and Table 2.4.1 of the Licence is amended by the inclusion of emission point reference L2 being irrigation of the oval as shown in red text below.

2.4.1 The Licensee is permitted, subject to conditions in the Licence, to emit waste to land through the emissions points listed in Table 2.4.1 and identified in the Map of emission points in Schedule 1.

Table 2.4.1: Emissions to land

Emission point reference and location on Map of emission points	Description	Source including abatement
L1	Treated wastewater evaporation/infiltration pond (Pond 2)	Treated wastewater from the sewage facility
<u>L2</u>	<u>Treated wastewater irrigated to Oval</u>	<u>Treated wastewater from the sewage facility</u>

- Condition 3.5.1 of the Licence is amended by the deletion of the text shown in strikethrough below and the deletion of Table 3.5.1 in its entirety:

3.5 Ambient environmental quality monitoring

3.5.1 The Licensee shall undertake the monitoring in Tables ~~3.5.1~~ and 3.5.2 according to the specifications in those tables and record and investigate results that do not meet any limit specified.

Table 3.5.1: ~~Monitoring of ambient groundwater quality~~

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
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MBH1 and MBH2	Standing water level	mbgl	Spot sample	Quarterly
	pH ¹	N/A		
	Total Dissolved Solids	mg/L		
	Electrical Conductivity	µS/cm		

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

Table 3.5.2: Monitoring of ambient sediment quality

Monitoring point reference and location	Parameter	Units	Averaging Period	Frequency
KL-1, KL-2, KL-3, KL-7, KL-8, KL-9, KL-10, KL-11, KL-12, KL-13, KL-14, KL-15, KL-16, KL-21 and KL-22	pH ¹	N/A	Spot sample	Annually in the same month
	Electrical Conductivity	µS/cm		
	Total Dissolved Solids	mg/kg		
	Total Suspended Solids			
	Carbonate (CO ₃)			
	Bicarbonate (HCO ₃)			
	Hydroxide			
	Chloride			
	Nitrate (NO ₃)			
	Sulfate (SO ₄)			
	Total Nitrogen			
	Total Phosphorus			
	Aluminium			
	Arsenic			
	Calcium			
	Cadmium			
	Copper			
	Copper			
	Cobalt			
	Chromium			
	Iron			
	Lead			
	Magnesium			
Manganese				
Potassium				
Sodium				
Nickel				
Zinc				

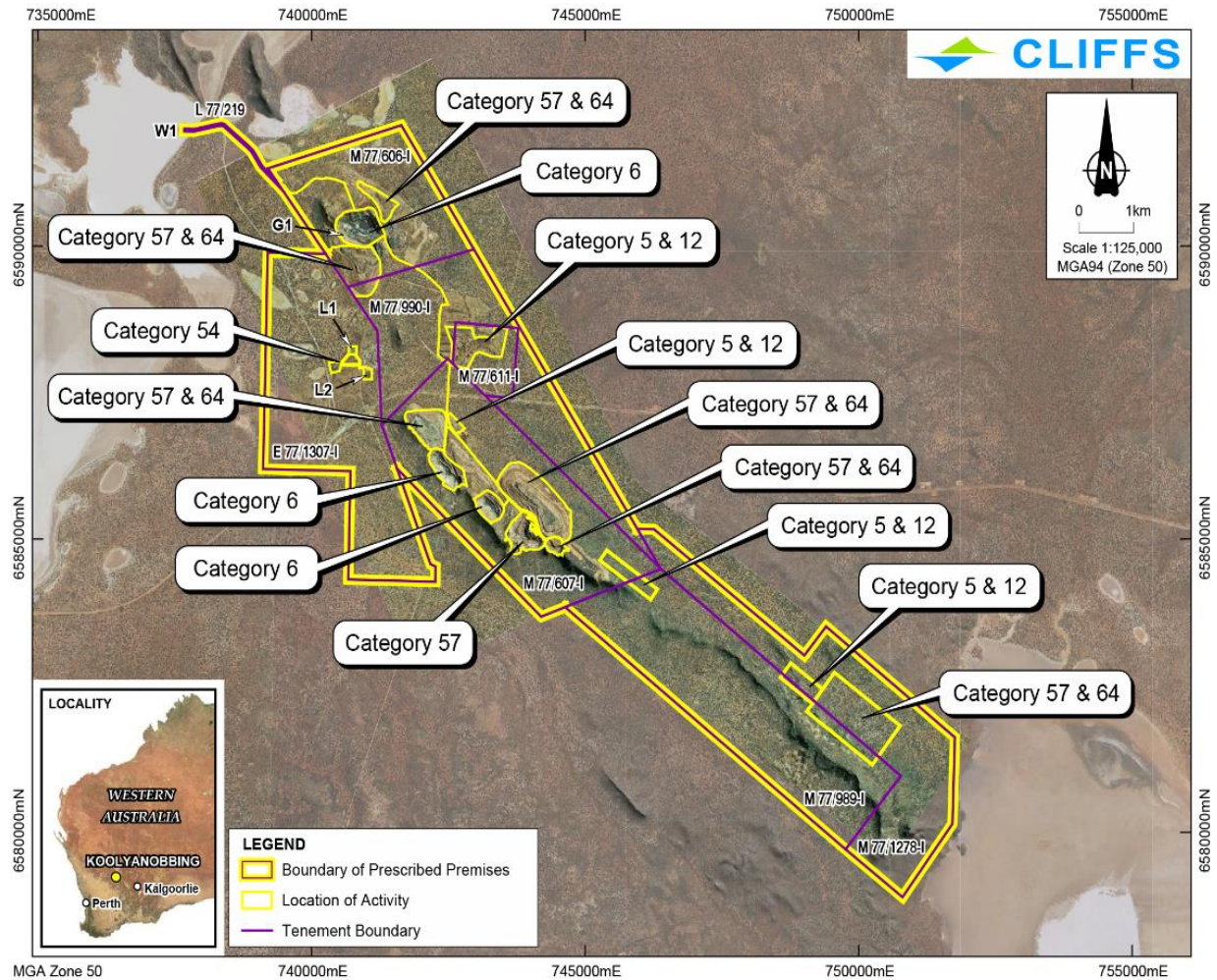
Note 1: In-field non-NATA accredited analysis permitted.

4. The Licence is amended by replacing the schedule 1 "Premise map" as follows.

Schedule 1: Maps

Premises map

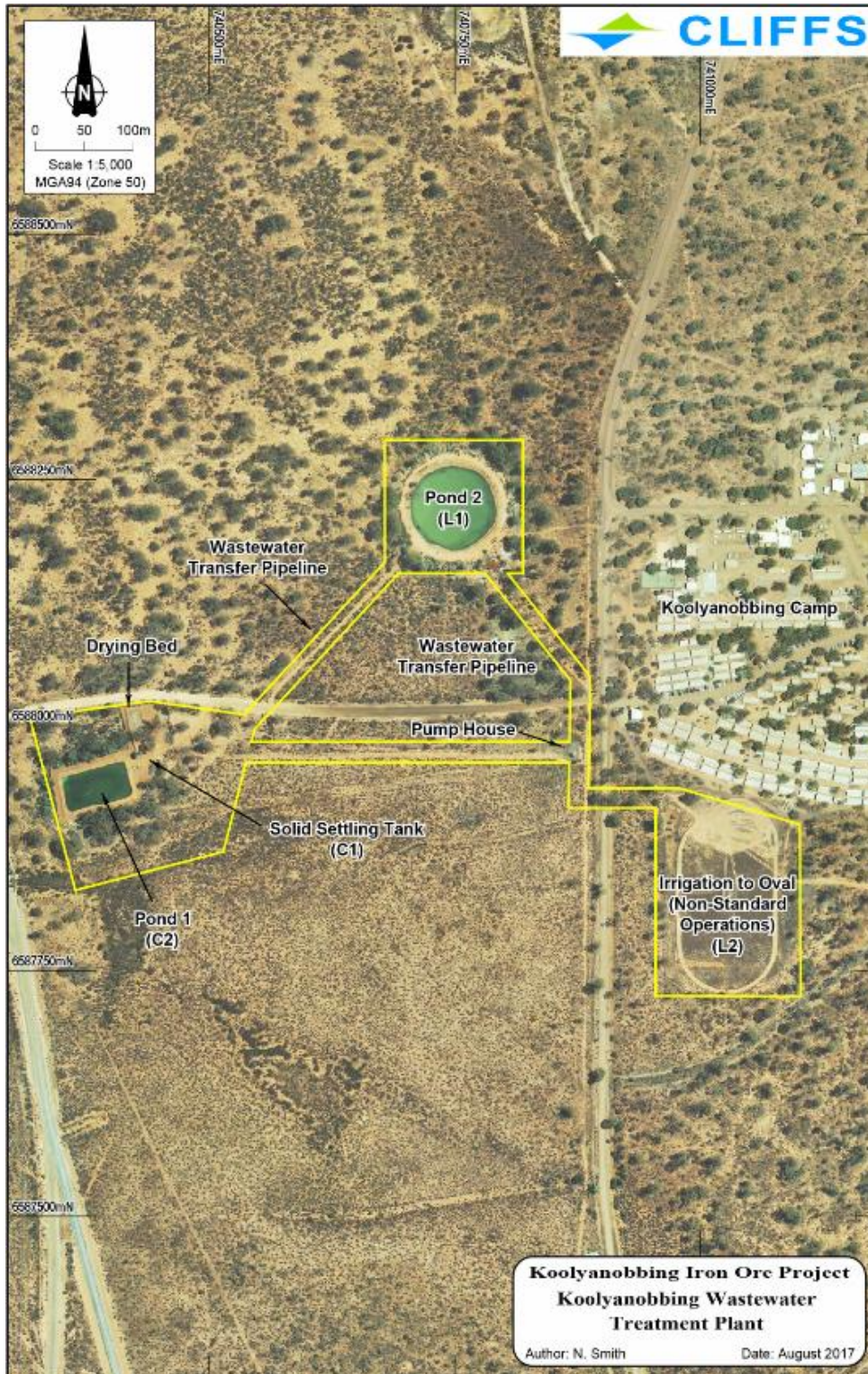
The Premises is shown in the map below. The yellow line depicts the Premises boundary and the purple lines depict the tenement boundaries.



5. The Licence is amended by replacing the schedule 1 “Map of emission points” for the Wastewater Treatment Plant with the following map.

Map of emission points

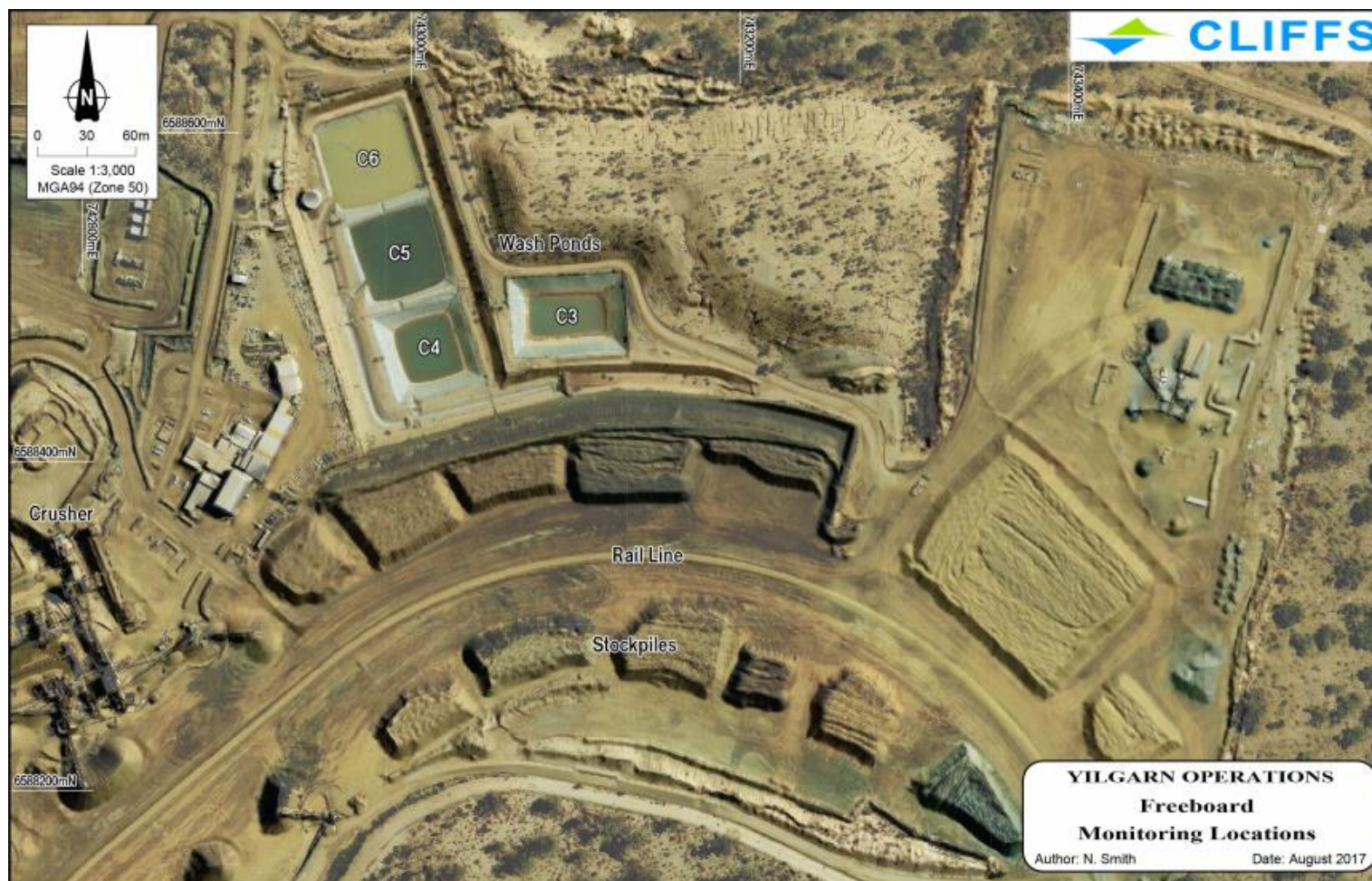
The location of the emission points defined in Table 2.4.1 and monitoring points defined in Table 3.4.1 are shown below.



6. The Licence is amended by replacing the schedule 1 “Map of emission points” for ore wash pad as follows by removing monitoring bores MBH1 & MBH2.

Map of emission points

The location of the emission points defined in containment infrastructure Table 1.2.1 and monitoring points defined in Table 3.5.1 are shown below.



Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L5850/1993/11 – Koolyanobbing Iron Ore Project	L5850/1993/11	accessed at www.dwer.wa.gov.au
2	Amendment Notice 1 – L5850/1993/11 – Koolyanobbing Iron Ore Project <i>dated 24 April 2017</i>	Amendment Notice 1	accessed at www.dwer.wa.gov.au
3	Application to amend Licence L5850/1993/11 – Koolyanobbing Iron Ore Project dated 22 June 2017	Application	DWER records (A1498991)
4	7 August 2017 e-mail from Cliffs providing further updates to L5850/1993/11 for amendment lodged on 22 June 2017.	Application	DWER record (A1500025)
5	22 August 2017 e-mail from Cliffs providing comments about the draft Amendment Notice	Application	DWER record (A1509634)
6	1 September 2017 e-mail from Cliffs providing further explanation to the operations of ponds C3 to C6	Application	DWER record (A1516414)
7	DER, July 2015. <i>Guidance Statement: Regulatory Principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
8	DER, October 2015. <i>Guidance Statement: Setting Conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
9	DER, February 2017. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2017a	
10	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2017b	

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 10 August 2017 for review and comment. The Licence Holder responded on 22 August 2017 and the following comments were received on the draft Amendment Notice 2.

Condition	Summary of Licence Holder comment	DWER response
Premises legal description	The Premises description must include Tenements M77/989 and M77/1278 as they appear on the Licence.	Include missing tenements onto this Amendment Notice 2.
Condition 3.5.1 and Table 3.5.1	<p>L5850 primary activities that cause the Premises to be licensed are Category 5 (ore processing), Category 6 (mine dewatering), Category 54 (sewage), Category 57 (tyre storage) and Category 64 (landfill).</p> <p>Groundwater monitoring of MBH1, MBH2 and wash water used from ponds C3 to C6 are not primary activities and therefore should not be regulated by Licence 5850/1993/11.</p> <p>The water in ponds C3 to C6 was used to wash the ore to remove salt impurities, and this is reflected in the text of the draft Amendment Notice 2. Whilst the washing of ore is located in close proximity to ore handling plant (Category 5), the Licence Holder does not believe the washing of the ore would constitute “processing” or “beneficiation” of that product, but rather as a separate process undertaken after the completion of the crushing and screening operation.</p>	<p>The washing of ore constitutes processing and requires management by the licence.</p> <p>Since the activity of iron ore rinsing has ceased, the monitoring bores can be removed from licence as this was their primary function. However, the ponds continue to collect wash down water and storm water and function to provide water for dust suppression across the premises including the OHP. Therefore, ponds C3 to C6 are critical infrastructure used to manage emissions from the “primary activity” (category 5 and 12) and shall remain managed by the licence.</p>
Condition 3.5.1 and table 3.5.1	The “Decision” section of the Amendment Notice 2 should include reference to the amendment of Condition 3.5.1.	The “Decision” section of this notice is revised to describe the amendment of Condition 3.5.1.
Table 1.2.1 and table 1.2.2	<p>Cliffs view the HDPE lined wash ponds C3 to C6 that store water for operations at the ore handling plant is not a primary activity and therefore all references and maps related to the ponds should be removed from the licence.</p> <p>Whilst other mine infrastructure types fall outside of the regulatory scope of DWER’s Licence 5850 the ponds do fall within other regulatory scope that being DMIRS under the Mining Act 1978 (WA).</p>	As per point 2 above discharge from the wash ponds is not approved. All wash down water and storm water from the operations must be contained for re-use. Table 1.2.1 and 1.2.2 will therefore remain unchanged in the licence.

Condition	Summary of Licence Holder comment	DWER response
Schedule 1 - Premises boundary map	The Premises map has an error where the boundary of the prescribed Premises is marked between M77/607 and M77/989 and between M77/1278 and M77/611 which should be a tenement boundary on Premises boundary.	Schedule 1 Premises boundary map has been changed to reflect the true Premises boundary.
Table 2.4.1 plus Schedule 1 – Map of emission points (WWTP)	The map of emission points for the WWTP is amended correctly however Table 2.4.1 should also be amended to specify an authorised emission point labelled L2 indicating waste water irrigation to the Oval.	The “Map of emission point” and Table 2.4.1 is amended to authorise irrigation of wastewater to the oval identified as point L2.
General request to amend licence to include Amendment Notices	It would be beneficial if the Licence 5850 was amended rather than approving Amendment Notice 2. Having the original Licence 5850 and two (2) Amendment Notices makes for quite a convoluted regulatory regime to manage, and may result in inadvertent non-compliance from the confusion this causes.	A consolidated licence incorporating all amendment notices will be produced when the licence is next reviewed.