

Decision Report

Application for Licence

Part V Division 3 of the Environmental Protection Act 1986

Licence Number	L5425/1989/12
Applicant ACN	Iluka Resources Ltd 008 675 018
File Number	DER2016/001500
Premises	Narngulu Operations 249 Goulds Road NARNGULU WA 6532 Lot 2 Plan 11238; Lot 202 Plan 59617; Lot 9 Diagram 64009; Lot 151 Diagram 78655; Lot 34 Diagram 66647
Date of Report	5 November 2020
Decision	Licence granted

Lauren Fox A/MANAGER RESOURCE INDUSTRIES

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

Table of Contents

1.	Deci	sion summary	1
	1.1	Consolidation of licence	1
2.	Scop	be of assessment	1
	2.1	Regulatory framework	1
	2.2	Application summary and overview of premises	1
		2.2.1 Mineral Separation Plant activities (L5425/1989/11)	4
		2.2.2 Narngulu Synthetic Rutile Plant activities (L6129/1987/13)	9
	2.3	Part IV of the EP Act	9
3.	Risk	assessment	9
	3.1	Source-pathways and receptors	10
		3.1.1 Emissions and controls	10
		3.1.2 Receptors	14
	3.2	Risk ratings	16
4.	Con	sultation	19
5.	Con	clusion	19
Refe	erence	9S	19
		1: Summary of applicant's comments on risk assessment and s	
		2: Application validation summary	
Tabl	e 1 Otł	ner relevant approvals	2
		oposed applicant controls	
Tabl	e 3: Se	ensitive human and environmental receptors and distance from prescribed	d activity
		sk assessment of potential emissions and discharges from the premises	•
Tabl	e 5: Co	onsultation	19
Figu	re 1 De	etailed site layout out	3
Figu	re 2 In	rastructure of the MSP	5
Figu			
Figu	re 3 Pi	peline to transport waste from ZFP to the water treatment plant (blue line))6
		peline to transport waste from ZFP to the water treatment plant (blue line) ocess overview of the Mineral Separation Plant	
Figu	re 4 Pr		7
-	re 4 Pr re 5 Pr	ocess overview of the Mineral Separation Plant	7 8
Figu	re 4 Pr re 5 Pr re 6 Er	ocess overview of the Mineral Separation Plant	7 8 12
Figu Figu	re 4 Pr re 5 Pr re 6 Er re 7 Di	ocess overview of the Mineral Separation Plant ocess overview of the barite removal nission sources at MSP	7 8 12 13

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the operation of the premises. As a result of this assessment, former L5425/1989/11 has been renewed and L5425/1989/12 has been granted.

As part of the licence renewal, the premises boundary was extended to include the adjacent Narngulu Synthetic Rutile Plant (NSR) premises area regulated under L6129/1987/13, also granted to Iluka Resources Ltd (applicant).

Conditions which remain relevant in the management of potential discharges and emissions at the newly included area from the former NSR site were added to renewed licence L5425/1989/12.

1.1 Consolidation of licence

The licence has also been updated to incorporate conditions in Amendment Notices 2 and 5. The incorporation of the Amendment Notices does not change the obligations of Iluka Resources Ltd and no additional risk assessment has been undertaken in consolidating the notices. Amendment Notices 1, 3 and 4 related to the expiry date of the licence only and were not incorporated in this amalgamation.

This amendment has been informed by the department's Regulatory Framework which is available at https://dwer.wa.gov.au/regulatory-documents.

Following Amendment Notices were amalgamated:

- Amendment Notice 2, granted 19 March 2018 approval to dispose asbestoscontaminated material and NORM in the historic Jennings landfill area; and
- Amendment Notice 5, granted 2 October 2019 approval to operate the barite removal circuit.

In consolidating the licence, the CEO has:

- updated the format and appearance of the licence;
- deleted the redundant AACR form set out in schedule 1 of the previous licence and advised Iluka Resources Ltd to obtain the form from the department's website;
- revised licence condition numbers, removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and minor errors.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of premises

On 22 June 2020 the applicant submitted an application for a licence renewal to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is to seek a licence renewal relating to category 8 activities at Narngulu Mineral

Separation Plant (MSP) including an extension to the current premises boundary. The extension consists of the adjacent area formerly known as Narngulu Synthetic Rutile (NSR) Plant. The new premises including the extended area will be referred to as Narngulu Operations (premises). The NSR and the MSP are subject to other approvals as set out in Table 1.

Category 31 (chemical manufacturing) related activities previously undertaken at the NSR premises have been ceased since 2012. Demolition works of the NSR plant started in 2018 and will progress in stages over several years. As a result, the applicant applied to the Department of Water and Environmental Regulation on 22 June 2020 to surrender licence L6129/1987/13. That application is on hold pending the granting of this application. The licence renewal application for this licence (L5425/1989/12), requesting that the active tailings storage facility (TSF) at the NSR premises be merged as part of this premises boundary

The premises is approximately 11 km south east of the town of Geraldton, and is located within the Narngulu Industrial Estate which consists of multiple other commercial and industrial premises (approximately 2 km radius around premises boundary).

A detailed site layout is shown in Figure 1.

Legislation	Context	Comment/Management
Contaminated Sites Act 2003NSR Lot 9 (Diagram 64009), Lot 34 (Diagram 66647), Lot 151 (Diagram 78655) are classified contaminated-remediation required (2017)		Contaminated Site Management Plan including TSF remediation schedule Performance reporting to Contaminated Sites Auditor
Environmental Protection Act 1986, Part IV	<u>NSR</u> Ministerial Statement 88 Synthetic Rutile Plant Expansion	Narngulu Operations Closure Plan (2015) submitted under MS 88 including overall site closure strategy, final landfom and post closure management
Mineral Sands (Eneabba) Agreement Act 1975	<u>NSR and MSP</u> Operations at the NSR and MSP plants are subject to a State Agreement.	Overseen by the Department of Jobs, Tourism, Science and Innovation (JTSI) on behalf of the Minister for State Development

Table 1 Other relevant approvals



Figure 1 Detailed site layout out

2.2.1 Mineral Separation Plant activities (L5425/1989/11)

The premises relates to prescribed premises category 8 (mineral sands mining or processing) and is currently authorised to process a maximum of 1 200 000 tonnes of heavy mineral concentrate (HMC) annually. Primary HMC feed sources processed are from Iluka's Jacinth-Ambrosia operation (South Australia) and Iluka's Cataby mine site. Final products are exported through Geraldton Port. Waste is transported from the Zircon Finishing Plant (ZFP) to the water treatment plant located in the adjacent NSR plant area, via above ground pipeline (Figure 3).

Additional recent works were authorised under W6215/2019/1 which included the construction of a Barite removal circuit for the processing of non-magnetic HMC (NHMC) from the applicants Cataby Mineral Sands Mine (Cataby mine, licensed under L9176/2018/1). Compliance documentation for the completed works has been provided to the department prior the licence amendment assessment. The licence amended to reflect these operations (Amendment Notice 5 granted 1 October 2019).

The Barite removal circuit comprises a flotation circuit to separate the naturally occurring barite from the more valuable zircon in the NHMC from the Cataby mine. This process produces two waste streams: 1) process water stream ('Stream 17'), which is combined with the MSP stream and reports to MSP process water dams; and 2) barite by-product ('Stream 13') which is stored within stockpiles north of the MSP for potential reprocessing.

The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guidance Statement: Risk Assessments* (DER 2017) are outlined in Licence L5425/1989/12.

The MSP comprises of following main components (Figure 2)

- Mineral Separation Plants 1 and 2
- ZFP
- Barite wet circuit
- Wash Plant to process heavy mineral concentrate
- Mobile Processing Unit (MPU) to reprocess historic sand tailings
- HMC stockpile pad with surface water runoff containment pond
- Cataby NHMC storage pad and collector storage and mixing area
- Process water dams (6)
- Product storage sheds

An overview of the MSP and the barite removal process is visualised in Figure 4 and Figure 5.



Figure 2 Infrastructure of the MSP

Licence: L5425/1989/12

IR-T13 Decision Report Template (short) v2.0 (July 2020)



Figure 3 Pipeline to transport waste from ZFP to the water treatment plant (blue line)



Figure 4 Process overview of the Mineral Separation Plant



Figure 5 Process overview of the barite removal

Licence: L5425/1989/12

IR-T13 Decision Report Template (short) v2.0 (July 2020)

2.2.2 Narngulu Synthetic Rutile Plant activities (L6129/1987/13)

Category 31 activities previously undertaken at NSR plant (adjoint to L5425/1989/12 premises) have ceased and the licence (L6129/1987/13) is to be surrendered. Current activities undertaken in this area include the operation of the lime plant, water treatment circuit and multiple tailings storage facilities (TSFs) for the treatment and disposal of liquid waste streams from the ZFP (Figure 1). Waste streams from ZFP are neutralised at the water treatment plant with slaked slime and pumped to the TSFs. Water is recovered and reused in ZFP processes.

As part of this licence renewal application, the applicant proposed to extend the premises boundary of L5425/1989/11 to include the former area of the NSR plant which is still in use.

2.3 Part IV of the EP Act

Activities associated with L5425/1989/12 have not been assessed by Part IV, however the former NSR plant is subject to conditions published in Ministerial Statement (MS) 88.

MS 88 sets out controls regarding the NSR plant including:

- Sulphur dioxide emission levels
- Dust emission levels
- Contingency plans for the waste management facilities
 - Keeping operational process water on site
 - Containment of neutralised effluent in evaporation dams to prevent groundwater impacts
 - Iron oxide disposed in lined dams
- The submission of a decommissioning and rehabilitation plan 6 months prior decommissioning date
- Monitoring requirements
 - Dams for potential leakage
 - o Monitoring bores to ensure no groundwater quality impacts
 - o Stack monitoring for particulates and gases
 - Radiation and atmospheric contaminants monitoring program
- Transfer of ownership

Requirements of MS 88 are not assessed in this decision report and are not duplicated as conditions in the licence.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this decision report are detailed in Table 2 below. Table 2 also details the proposed control measures the applicant has proposed to assist in controlling these emissions, where necessary. Point source air emissions are shown in Figure 6.

Emission	Sources	Potential pathways	Proposed controls			
Operation Narngulu Mineral Separation Plant (MSP)						
Dust/air emissions (point source)	Point source from stacks (Figure 6)		Dust Management Plan 2018 (Iluka, 2018) and Air Quality Management Plan (Iluka, 2018) were provided with the application. Key commitments from these management plans are:			
			Baghouse, cyclones, quarterly stack monitoring, continuous particulate monitors on Drier 605 and ZFP dryer.			
			Air Dispersion modelling (SO ₂ , particulates and metals)			
			Drying circuit of MSP:			
			Quarterly stack condition testing, particulate monitoring (including U/Th), annual monitoring of trace metals, particle sizing			
			ZFP			
		Air/wind dispersion	Quarterly stack condition testing, SOx, sulfuric acid mist (ZFP Stack), annual monitoring of trace metals, particle sizing (ZFP Dryer)			
Dust (fugitive)	Product stockpiles, plants, truck and vehicle movement		Dust Management Plan 2018 (Iluka, 2018) and Air Quality Management Plan (Iluka, 2018) were provided with the application. Key commitments from these management plans are:			
			Storage sheds, street sweeper, water cart, wind breaks, stockpile bunkers, gluon, monitoring			
			TSP monitoring (Figure 7)			
Noise	Operating plants		Operations within industrial estate with designated buffer zone			
SOx, sulphuric acid mist from stack	Zircon finishing plant (ZFP)		Wet scrubber, quarterly stack monitoring			
Neutralised sulphuric acid effluent		Pipeline bursts/leaks	Bunded/sleeved pipeline to lined TSFs (Lot 151 and Lot 9)			
enluent			Scheduled maintenance and inspections of			

Table 2: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
			pipe trace, automated pump cut offs (interlocks) if leak is detected
Washplant waste water (saline, iron	HMC wash process	Pipeline	Bunded/sleeved pipeline to lined TSFs (Lot 151 and Lot 9)
rich clay)		bursts/leaks	Scheduled maintenance and inspections of pipe trace, automated pump cut offs (interlocks) if leak is detected.
Leachate and contaminated stormwater runoff	From stockpiling JA-HMC	Direct infiltration into soil and	HMC stockpile area lined with HDPE liner and leachate collected and pumped to lined TSFs (NSR area)
		groundwater	Sloped NHMC stockpile pad (compacted soil).
Seepage	Process water ponds	Direct infiltration into soil and groundwater	Lined with HDPE liner with exception of slimes settling dams.
Operation of Narng	ulu Synthetic Ruti	le Plant (NSR)	
Process water,	TSFs, pipelines	Dis alian	Tailings Management Plan (Iluka, 2018)
washplant waste water;			Bunded/sleeved pipeline to lined TSFs (Lot 151 and Lot 9)
		Pipeline bursts/leaks and seepage	Scheduled maintenance and inspections of pipe trace, automated pump cut offs (interlocks) if leak is detected
			MS 88 requires the containment of all operational process waters on-site and on a continuous basis.
Neutralised	TSFs		Tailings Management Plan (Iluka, 2018)
sulphuric acid effluent		Seepage	MS 88 requires the containment of neutralised sulphuric acid effluent in evaporation dams.
Dust	Excavation works within TSF area,		MS 88 requires to manage dust emission levels to the satisfaction of the Environmental Protection Agency.
	drying, stockpiling, transporting iron concentrate	Air/wind dispersion	Additionally, a Dust Management Plan 2018 (Iluka, 2018) and Air Quality Management Plan (Iluka, 2018) were provided with the application. Key commitments from these management plans are:
			Storage sheds, street sweeper, water cart, wind breaks, stockpile bunkers, gluon, monitoring
			TSP monitoring (Figure 7)



Figure 6 Emission sources at MSP



Figure 7 Dust monitoring locations

3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the applicant's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below and Table 2 above provide a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016). Nearest residents are shown in Figure 8.

Table 3: Sensitive human and environmental receptors and distance from prescribed	
activity	

Human receptors	Distance from prescribed activity		
(Rural) residential premises *between 100-200 residential premises	Located immediately adjacent to the north, east, west and south, all within a 2km radius of the premises' boundary		
Workers/ personnel within the Narngulu Industrial Estate *between 50-100 commercial premises	Located immediately adjacent to the north, east and west <u>and</u> within a 2km radius of the premises' boundary		
Narngulu Train Station (commercial use only) including marshalling area and workshops	Approximately 800m south-east away from premises' boundary		
Geraldton Junior and Senior Motocross Club	Approximately 850m west away from premises' boundary		
Geraldton Airport	Approximately 1000m east away from premises' boundary		
Environmental receptors	Distance from prescribed activity		
Groundwater	Narngulu Bore Point ID 70100022 indicates ground level 20.8 metres AHD (1974).		
	The atlas indicates that groundwater beneath the study area (Narngulu) is at approximately12 mbgl and of brackish quality.		
	Groundwater was identified to flow towards the Indian Ocean.		
	Within the Arrowsmith Groundwater area, Northampton Inlier (Northern Perth Basin).		



Figure 8 Nearest residents to the premises

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

Licence L5425/1989/12 that accompanies this decision report authorises emissions associated with the operation of the premises i.e. category 8 activities

The conditions in the issued Licence, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4: Risk assessment of potential emissions and discharges from the premises during operation

Risk Event					Risk rating ¹		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Conditions ² of licence	Justification for additional regulatory controls
Category 8 – Mineral Sand	Is Mining or Pro	ocessing - Operati	ons				
Stacks including: Mineral separation plants (MSP 1 and MSP 2), Zircon	Noise			Refer to Section 3.1.1	C = Slight L = Unlikely Low Risk	N/A	N/A
finishing plant (ZFP), Washplant, Barite removal circuit	Dust (point source)			Refer to Section 3.1.1	C = Major L = Possible High Risk	Conditions 1.1.8, 1.1.11,	Previous licence referred to an outdated dust management plan (2008). The applicant provided an
Zircon finishing plant (ZFP)	SOx as sulphuric acid mist from stack		Residential and	Refer to Section 3.1.1	C = Moderate L = Likely High Risk	1.2.5, 1.2.6	updated version, and controls set out in the plan are now included as specific conditions in the renewed licence.
Mineral separation plants (MSP 1 and MSP 2), Zircon finishing plant (ZFP), Washplant, Barite removal circuit, Mobile processing unit; product stockpiles, truck/vehicle movement	Dust (fugitive)	Air/wind dispersion resulting in human health or amenity risks	commercial premises (closest approximately 1 km from premises)	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Conditions 1.2.1 – 1.2.3	Licence conditions in previous licence found sufficient. These have been retained in the renewed licence.
Excavation works within TSF area, drying, stockpiling, transporting iron concentrate, lime plant, water treatment plant	(Refer to Section 3.1.1	N/A	N/A Regulated under MS 88	N/A

Licence: L5425/1989/12

Risk Event					Risk rating ¹		
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Conditions ² of licence	Justification for additional regulatory controls
Water treatment plant neutralising used acid from ZFP	Used acid from ZFP			Refer to Section 3.1.1	N/A	N/A Regulated under MS 88	N/A
Stockpiling of NHMC and	Leaching from storage	Infiltration through ground and	of Groundwater, surrounding	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	- Conditions 1.1.8, 1.3.9	Licence conditions in previous licence found sufficient. These have been retained in the renewed licence.
HMC	pad stockpiling JA-HMC	contamination of groundwater			C = Moderate L = Possible Medium Risk		Applicant proposed controls were incorporated as conditions in renewed licence.
TSF	Saline effluent, process			surrounding F soil and S	Refer to Section 3.1.1	N/A	N/A Regulated under MS 88
Pipelines	water, waste water from MSP, neutralised sulphuric acid effluent, process water with flotation reagents from barite removal circuit	Spillage, bursting of pipes		Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	Conditions 1.1.8, 1.3.9	Licence conditions in previous licence found sufficient. These have been retained in the renewed licence.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Guidance Statement: Risk Assessments (DER 2017).

Note 2: Proposed applicant controls are depicted by standard text. Bold and underline text depicts additional regulatory controls imposed by department.

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website and the newspaper (28/09/2020)	None received	N/A
City of Greater Geraldton advised of proposal (21/09/2020)	None received	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal (21/09/2020)	None received	N/A
Department of Jobs, Tourism, Science and Innovation (JTSI) advised of proposal (21/09/2020)	None received	N/A
Notification to internal Contaminated Sites Branch (10/09/20)	None received	N/A
Application referred to Part IV (EPA) (10/09/20)	Internal advice on conditions and MS88 crossovers provided.	Implemented as advised.
Applicant was provided with draft documents (8/10/2020)	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this decision report, the Delegated Officer has determined that the application to renew licence L5425/1989/12 will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

References

- 1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
- 2. DER 2017, Guidance Statement: Risk Assessments, Perth, Western Australia.
- 3. DER 2015, Guidance Statement: Setting Conditions, Perth, Western Australia.

- 4. Iluka 2020, L5425/1989/11 Licence renewal application and supporting documents (A1910284)
- 5. Iluka 2019, W6215/2019/1 Compliance documentation (DWERDT346827)
- 6. EPA 1989, Ministerial Statement 88 & Report (access via <u>https://www.epa.wa.gov.au/all-ministerial-statements</u>)

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response				
Decision report						
General	Corrections to minor typographical errors	Corrected.				
Figure 2: Infrastructure	Updated figure provided.	Figure replaced with updated map.				
Table 2: Proposed applicant controls	Applicant requests removal of PM_{10} and $PM_{2.5}$ parameters for dust (fugitive) monitoring	Updated to reflect correct parameters in accordance with the Dust Management Plan 2018 (Iluka)				
Table 2: Proposed applicant controls	Applicant provided control details for process water ponds and clarified emission sources.	Updated to reflect additional controls and correct emission sources.				
Figure 7: Dust monitoring locations	Updated figure without weather station provided. Weather station has been demolished and removed from licence.	Figure replaced with updated map.				
Table 3: Receptors	Clarifications that train station is for commercial use only, no passenger transport	Updated to reflect the commercial use only.				
Table 4: Risk assessment	Correction and clarification of potential emissions from stockpiling. Correction of NHMC to JA-HMC. NHMC from Cataby has been processed with fresh water so it can be stockpiled on unsealed ground. JA-HMC is required to be stored on lined area due to being processed at the mine by saline water and residual salt remains.	Table updated to reflect the JA-HMC aspect. Removal of HMC stockpile leaching as potential emission.				
Licence						
Table 1 Infrastructure and equipment controls table	Correction 'HMC stockpile area' to say 'JA-HMC storage pad'.	Updated to reflect the proposed change.				
Table 1 Infrastructure and equipment controls table	Applicant provided control details for process water ponds.	Updated to reflect additional controls.				

Licence: L5425/1989/12

Condition	Summary of applicant's comment	Department's response
Table 2 Authorised emissions table	Remove reference of washplant wastewater to be discharged into 'SD8'. Replace SD8 with 'TSFs'.	Updated to reflect the proposed change.
Condition 7, Table 3 Monitoring of ambient concentrations	Request to remove the Hi Vol monitoring from licence as this is done for the purpose of radiation monitoring only.	Updated to reflect the proposed change.
Condition 18, Table 7 Ambient groundwater monitoring	Additional groundwater bores have been installed, additional parameters have been monitored.	Updated to reflect additional bores and parameters.
Figure 2 Environmental monitoring sites	Request to replace with provided updated map, and change caption to 'water monitoring sites'.	Updated to reflect the proposed change.
Figure 5 Infrastructure	Updated figure provided.	Figure replaced with updated map (same as Figure 2 in Decision report).
Figure 6 Dust monitoring locations	Updated figure without weather station provided. Weather station has been demolished and removed from licence.	Figure replaced with updated map.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY								
Application type								
Works approval								
Licence		Relevant works approval number:		Non e				
		Has the works approval been complied with?		Yes 🗆] No 🗆			
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes 🗆] No 🗆 N/A			
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes □ No □				
		Date Report received:						
Renewal	\boxtimes	Current licence number:	L5425/1989/11					
Amendment to works approval		Current works approval number:						
Amendment to licence		Current licence number:						
		Relevant works approval number:		N/A				
Registration		Current works approval number:		Non e				
Date application received		22 June 2020						
Applicant and Premises detail	S							
	/ >	Iluka Resources Limited						
Applicant name/s (full legal name/s)		Mr Peter Spalding (Environmental Superintendent)						
Premises name		Narngulu Mineral Separation Plant (MSP) Narngulu Operations (NO) *Formerly Narngulu Mineral Separation Plant and Narngulu Synthetic Rutile Plant (to be merged)						
Premises location		Lot 2 on Plan 11238, Lot 202 on Plan 59617, Lot 9 on Diagram 64009, Lot 151 on Diagram 78655 and Lot 34 on Diagram 66647, 249 Goulds Road, Narngulu						
Local Government Authority	Local Government Authority		City of Greater Geraldton					
Application documents								
HPCM file reference number:		DER2016/001500-1						

Key application documents (additional to application form):	P • N • N • N • N • N • N • N • N • N • N	Aarngulu Operations (NO) Air Quality Management Plan; NO Dust Management Plan; NO Tailings Management Plan; NO Dust Monitoring Sites Map; NO Emissions and Discharges Map; NO Rearest Sensitive Receptors Maps; NO Nearest Sensitive Receptors Maps; NO Premises Map; NO Proposed activities (additional to app form); NO Siting and Location Map; NO Site Location Map; NO Record/ Certificate of Title; and NO ASIC Current Company Extract;				
Scope of application/assessment						
Licence renewal/ amendment L5425 Iluka's Narngulu Operation consists of the Mineral Separation Plat (MSP) and the former Narngulu Synthetic Rutile Plant (NSR). As part of this renewal/amendment process, sister premise L6129/1987/13 - Narngulu Synthetic Rutile Plant will be surrendered, to reflect that category 31 (chemical manufacturin operations have ceased, and for all other remaining activities of this premises will be merged with licence L5425/1989/11 (locate adjacent to the former Narngulu Synthetic Rutile Plant). Additionally that the prescribed premises boundary defined und L5425/1989/11 will be extended to include the adjacent are currently prescribed under L6129/1987/13 as part of the licence renewal process. The NSR plant surrender application will be processed under separate application (L6219).						
Table 1: Prescribed premises catego		e premises to become prescribed premises)				
Prescribed premises category and description		Assessed production or design capacity				
Category 8 – Mineral Sands Mining or Processing		More than 500,000 but not more than 5,000,000 tonnes per year				
		1,200,000 tonnes (no change)				
Legislative context and other approvals						
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes [□ No ⊠				
Does the applicant hold any existing Part IV Ministerial Statements	Yes	☑ No ☑☑ Ministerial statement No: 88				

relevant to the application?		EPA Report No: 410		
Has the proposal been referred and/or assessed under the EPBC Act?	Yes 🗆 No 🛛	N/A		
		Certificate of title 🖂		
		Lot 2 on Plan 11238 – 2/P11238		
		Lot 34 on Diagram 66647 – 34/D66647		
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes 🛛 No 🗆	Lot 151 on Diagram 78655 – 151/D78655		
		Lot 202 on Plan 59617 – 202/DP59617		
		Lot 9 on Diagram 64009 - 9/DP64009		
Has the applicant obtained all relevant planning approvals?	Yes 🗆 No 🗆 N/A 🖂	Approval: DWER has no record of planning approval		
Has the applicant applied for, or have		N/A		
an existing EP Act clearing permit in relation to this proposal?	Yes 🗆 No 🖂	No clearing is proposed.		
Has the applicant applied for, or have		N/A		
an existing CAWS Act clearing licence in relation to this proposal?	Yes 🗆 No 🛛	No clearing is proposed.		
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes 🗆 No 🖂	Groundwater licence GWL181203 expired and did not need to be renewed. (HPCM:		
		RF13661)		
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes 🗆 No 🛛	N/A		
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes 🗆 No 🛛	N/A		
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes ⊠ No □	 Mineral Sands (Eneabba) State Agreement Act 1975 Environmental Protection (Controlled Waste) Regulations 2004; Environmental Protection (Noise) Regulations 1997; Environmental Protection (Unauthorised Discharges) 		

		Regulations 2004; Mines Safety and Inspection Act 1994;
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes □ No ⊠	N/A
Is the Premises subject to any EPP requirements?	Yes □ No ⊠	N/A
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes ⊠ No □	Only for Lot 151 ON DIAGRAM 78655 (Site number 15960) which is the former NSR plant (L6129)
		Classification: Contaminated - remediation required (ID 3854) Date of classification: 18 Jul 2017