



Amendment Notice 2

Licence Number	L8678/2012/1
Licence Holder	Atlas Iron Limited
ACN	110 396 168
File Number:	2012/005843
Premises	Mt Dove DSO Project Mining Tenement M47/1449 and L45/248 INDEE WA 6721
Date of Amendment	06/02/2018

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 February 2018

Alana Kidd

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
ACN	Australian Company Number
ARI	annual recurrence interval
AER	Annual Environment Report
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
ha	hectare
Licence Holder	Atlas Iron Limited (Atlas)

Atlas	Atlas Iron Limited (the Licence Holder)
m ³	cubic metres
Minister	the Minister responsible for the EP Act and associated regulations
Mtpa	million tonnes per annum
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>
RO	reverse osmosis
ROM	run of mine
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i>
SAF	Submerged Aerated Filter
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</i>

Amendment Notice

This Notice is issued under 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.

The following DWER Guidance Statements have informed the decision made on this amendment:

- *Guidance Statement: Setting Conditions* (October 2015)
- *Guidance Statement: Decision Making* (February 2017)
- *Guidance Statement: Risk Assessments* (February 2017)
- *Guidance Statement: Environmental Siting* (November 2016)

Amendment description

This Amendment Notice is the result of a Licence Holder initiated amendment to:

1. Increase the approved premises production or design capacity of the Category 5 ore processing facility from 2.4 Mtpa to 3 Mtpa, to include the crushing of spodumene ore as well as iron ore; and
2. Increase the approved premises production or design capacity of the existing category 85 wastewater treatment plant (WWTP) to 70 cubic metres per day (m³/day).

The proposed premises production or design capacity changes are summarised in Table 2.

Table 2: Proposed throughput capacity changes

Category	Current approved premises production or design capacity	Proposed premises production or design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	2.4 Million tonnes per annum (Mtpa)	3 Million tonnes per annum (Mtpa)
Category 85: Sewage facility	47.5 cubic metres per day	70 cubic metres per day

Category 5 - Processing of ore

The Licence Holder (Atlas Iron Limited, also referred to as Atlas) currently crushes and screens iron ore at the premises. The location of the crushing and screening facility is shown in Figure 1 below.

Atlas proposes to crush an additional type of ore (spodumene) and increase the total approved category 5 throughput to 3 Mtpa. No modifications will be made to the processing plant.

Spodumene is a pyroxene mineral consisting of lithium aluminium inosilicate, and is a source of lithium. Spodumene ore contains naturally occurring radioactive materials (NORMs).

The spodumene ore will be transported onto the premises from Pilbara Minerals Limited's Pilgangoora Lithium-Tantalum Project premises. Pilbara Minerals Limited was granted works approval W6051/2017/1 on 6 November 2017 for the project. The approved works include the construction of a category 5 processing plant and tailings storage facility for production of 320,000 tpa of lithium oxide (spodumene) concentrate.

As the spodumene to be crushed at the Mt Dove DSO Project premises will be sourced from the Pilgangoora Lithium-Tantalum Project the following information from W6051/2017/1 is applicable, which states that a radiation management plan is not required due to the low

concentration of NORMs in the ore:

“In Western Australia the primary legislation relating to radiation management is the Radiation Safety Act 1975 and subsidiary legislation. In general, mining operations are mandated to comply with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), Code of Practice & Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing – Radiation Protection Series No. 9 (the Code).

Within the Code it is stated that the International Atomic Energy Agency sets exclusion levels for naturally occurring radioactivity in bulk materials at 1 Becquerel per gram (Bq/g) head-of-chain activity for the Uranium and Thorium decay chain radionuclides.

Pilbara Minerals advised that as part of the tailings test work, a subsample of tailings was assayed by ALS in June 2016. Thorium and Uranium concentrations were 2.6 mg/kg and 3.2 mg/kg respectively. At these concentrations, the combined activity concentration of Thorium and Uranium is approximately 0.05 Bq/g, which is an order of magnitude lower than the trigger value of 1 Bq/g.”

Category 85 - WWTP

An amendment to upgrade the current WWTP was granted on 23 May 2017 to replace the existing 35 m³/day wastewater treatment plant (WWTP) with a new 47.5 m³/day Submerged Aerated Filter (SAF) treatment plant. The upgrade was required to accommodate a planned camp expansion that would add an additional 57 rooms. Up to 36 m³/day brine from a Reverse Osmosis (RO) plant will be combined with the treated effluent and discharged to the irrigation area. The upgrade also included expansion of the irrigation area to 1.3 hectares (ha). The works approved by this amendment had not yet commenced at the time of this assessment.

Atlas now intends to increase the size of the accommodation camp by a further 52 rooms, to a total of 242 rooms. With an estimated waste water production of 250 litres per person per day, the expected waste water from the camp will be 60.5 m³/day. Total effluent discharged will include the addition of brine from the RO.

The new proposal is to construct an additional and duplicate Submerged Aerated Filter (SAF) treatment plant adjacent to the already approved plant, and expand the irrigation area for a proposed total area of 3.8 ha, to account for the additional waste water that will be required to be treated and discharged.

The final WWTP infrastructure will consist of:

- 2 x Balance tanks.
- 2 x Balance pumps.
- 2 x Primary 1 tanks.
- 2 x Primary 2 tanks.
- 2 x Aeration tanks, with media.
- 2 x Blowers.
- 2 x Clarifiers, including airlift return activated sludge.
- 2 x Chlorine analysers and automated chlorine dosing.
- 2 x Pump out chambers.
- 2 x Control panels.
- Audible and visual pump fault alarm.
- Treated wastewater irrigation's storage system upgraded to be able to store a

maximum of 220 m³/day.

- Irrigation pump.
- Discharge flowmeter.
- Total irrigation spray field area of 3.8 ha, with irrigation sprinklers, fencing and signage.

The locations of the two duplicate treatment plants and the irrigation spray fields are shown in Figure 2 below.

The expected water quality of the discharge effluent is detailed in Table 3.

Table 3: Expected discharge effluent quality

Parameter	Expected effluent concentration
pH	6.5-8.5
Total Suspended Solids	<30 mg/L
Biochemical Oxygen Demand	<20 mg/L
Total Nitrogen (TN)	<30 mg/L
Total Phosphorus (TP)	<8 mg/L
E.Coli	<1,000 cfu/100mL
Residual Chlorine	0.2-2.0 mg/L
Electrical conductivity (EC)*	<2,000 µS/cm
Total Dissolved Solids (TDS)*	<1,200 mg/L

*from RO reject

Expected nutrient loading from the WWTP system on soils at the spray area are detailed in Table 4.

Table 4: Nutrient loadings

Parameter	Nitrogen	Phosphorus
Expected effluent quality (mg/L)	30	8
Spray field area (ha)	3.8	3.8
Throughput (effluent only (m ³ /day)	70	70
Expected nutrient load (kg/ha/year)	201.7	53.8
Throughput: effluent and RO (m ³ /day)	110	110
Expected nutrient load (kg/ha/year)	316.9	84.5
Water Quality Protection Note 22 Guideline (WQPN 22) limit (kg/ha/year)	480	120

Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 5.

Table 5: Relevant approvals

Legislation	Number	Approval
<i>Mining Act 1978</i>	Registration ID: 34031 Registration ID: 45425 Registration ID: 66506	15/06/2012 3/02/2014 16/05/2017
<i>EP Act 1986</i>	CPS 486/1/2	17/05/2012
<i>Rights in Water and Irrigation Act 1914 (RIWI Act)</i>	GWL 175319(3)	17/06/2015

Amendment history

Table 6 provides the amendment history for L8678/2012/1.

Table 6: Licence amendments

Instrument	Issued	Amendment
L8678/2012/1	06/06/2013	Licence amended to include category 85 sewage facility
L8678/2012/1	23/05/2017	Amendment Notice – replacement of category 85 WWTP with increased capacity and irrigation spray area expansion.
L8678/2012/1	06/02/2018	Amendment Notice 2 - increase Cat 5 throughput for the crushing of spodumene; increase category 85 capacity and irrigation spray area.

Location and receptors

The Mt Dove DSO project is located approximately 68 km south of Port Hedland. The premises is the whole of M47/1449 and L45/248.

Table 7 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 7: Receptors and distance from activity boundary

Residential and sensitive land uses	Distance from the proposed activity
Mt Dove Camp (excluded as a sensitive premises as accommodates employees, visitors or contractors of the Licensee)	150 m from the WWTP 1.9 km from the crushing and screening plant
Indee Homestead	20 km

Guidance Statement: Environmental Siting (November 2016) lists 'specified ecosystems' as indicative environmental receptors which will be considered in risk assessments.

Table 8 lists the 'specified ecosystems' (biological and physical components) and 'designated areas' in the vicinity of the Prescribed Premises which may be relevant to the proposed amendment.

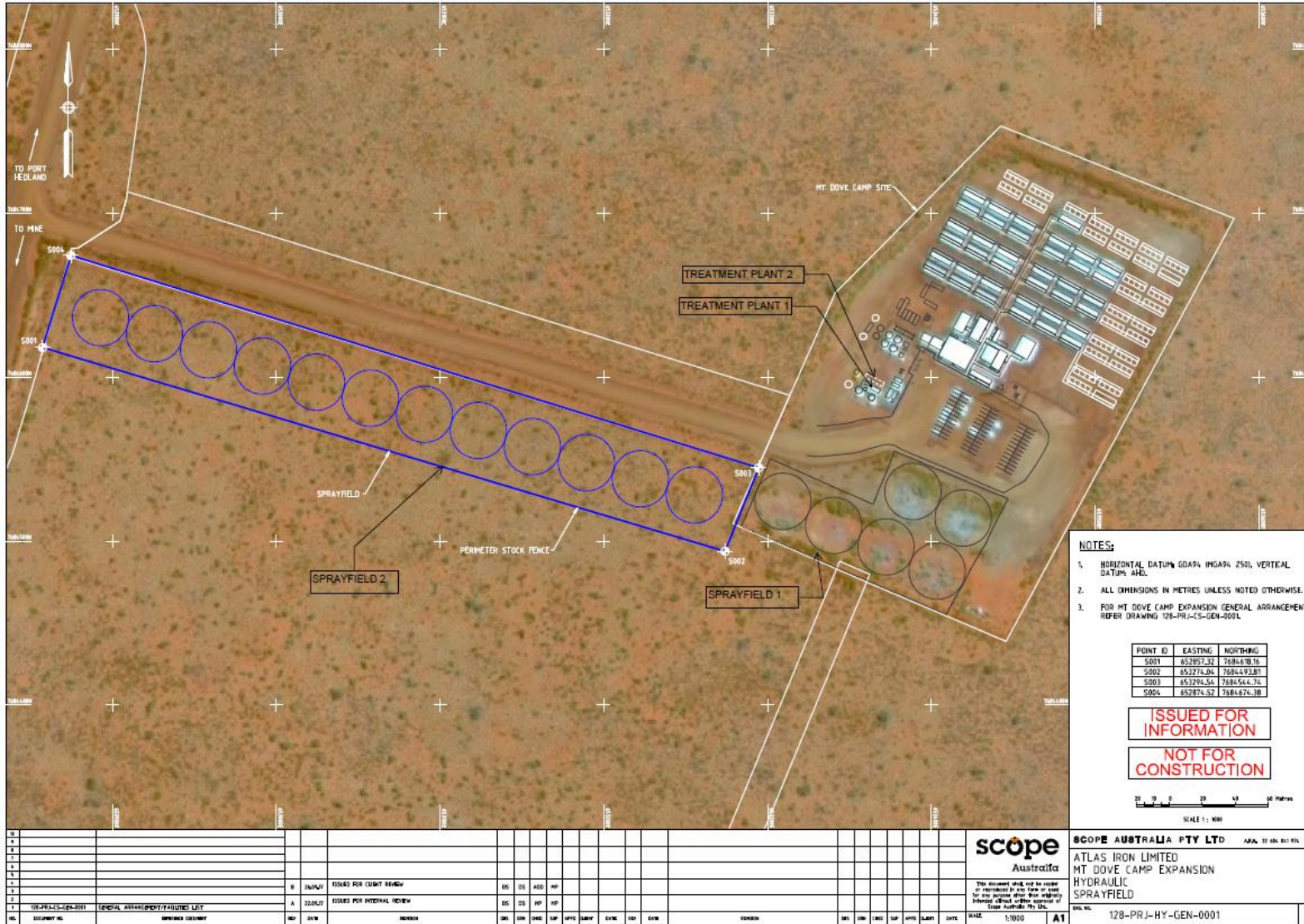
Table 8: Relevant specified ecosystems and designated areas

Specified ecosystems	Distance from the proposed activity
<p>Priority Threatened Fauna – Bird - Migratory birds protected under an international agreement</p> <p>Endangered Threatened Fauna - Mammals</p>	<p>Listed on DWER’s GIS data set as occurring on the premises.</p>
<p>Priority Flora – closest is P3 <i>Heliotropium muticum</i></p>	<p>5 km</p>
<p>Public Drinking Water Source Area - Yule River Water Reserve supplies water to the town of Port Hedland and is identified as a Priority 1 Source Protection Area</p>	<p>~ 10 km from the WWTP</p> <p>~ 6 km northwest of the crushing and screening facility</p>
<p>RIWI Act Surface Water Area - Pilbara Surface Water Area</p>	<p>The premises is located on the Area.</p>
<p>RIWI Act Ground Water Area – Pilbara Groundwater area</p>	<p>The premises is located on the Area.</p>
<p>Hydrography WA 250K Surface Water Polygons –</p> <p>Turner River</p> <p>Yule River</p> <p>There are no minor water courses on the premises that drain into either river.</p>	<p>Turner River is 12 km east of the premises</p> <p>Yule River is 10 km west of the premises</p>
<p>Groundwater</p> <p>DWER’s GIS layer WIN groundwater sites recorded salinity 13.5 – 31.7 µS/cm across the premises in 2011.</p> <p>Water quality is considered moderately fresh to brackish.</p>	<p>The watertable in the shallow alluvial aquifer surrounding the project area lies approximately 6 to 12 metres below ground level (mbgl).</p> <p>Overlaid by deposits of alluvial clay, silt and sand.</p>

Figure 1: Site layout



Figure 2: WWTP and irrigation field - layout



Risk assessment

Tables 9 and 10 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. Where controls are deemed to lower risk, they are conditioned in the Licence in accordance with *Guidance Statement: Risk Assessment*.

Table 9: Risk assessment for proposed amendments during construction

Risk Events					Continue to detailed Risk Assessment	Reasoning	
Sources/Activities	Potential Emissions	Potential Receptors	Potential Pathway	Potential Adverse Impacts			
Construction, mobilisation and positioning of WWTP infrastructure	Vehicle movements on unsealed access roads.	Noise	No residences or other sensitive receptors in proximity. Residential premises located 20km from the premises.	Air / wind dispersion	Health and amenity	No	No receptor present.
		Dust					
	Construction of new, WWTP plant and infrastructure.	Noise					
		Dust					

Table 10: 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 5: Crushing of spodumene and increase throughput to 3 Mtpa	Operation of crushing infrastructure and movement of ore.	Dust associated with ore processing, ROM pad, crushing circuit, stockpiles and conveyors.	No residences or other sensitive receptors in proximity. Residential premises located 20km from the premises.	Air / wind dispersion	Health and amenity impacts.	Slight Low level impact to amenity.	Rare The risk event may only occur in exceptional circumstances.	Low No sensitive human or sensitive environmental receptor present. Project wide dust management measures at the crushing and screening facility include: <ul style="list-style-type: none"> • Water added to the ore to achieve the Dust Extinction Moisture content. • Operation of water sprays throughout the plant and transfer points. • Covered transfer chutes. • Dust suppression by water cart at stockpiles and roads. Risk assessment is Low . The General Provisions of the EP Act will apply. No regulatory controls are deemed to be required.
		Contaminated stormwater runoff	Soil and vegetation adjacent to processing or storage and transfer areas (noting lithium is highly soluble).	Direct discharges to land. Stormwater runoff from operational areas.	Soil contamination inhibiting vegetation growth and survival. Lithium is highly soluble and can be toxic to humans and	Minor Low level on site impacts.	Unlikely Impacts will probably not occur in most circumstances.	Medium The Spodumene ore contains NORMs which are at low levels and a Radiation Management Plan is not required. Lithium is highly soluble and can be toxic. Consequence is assessed as minor because: <ul style="list-style-type: none"> • Low concentrations/ low radiation emissions of lithium and NORMs in sediments.

					fauna. Spodumene contains NORMs. Infiltration to groundwater water.				<ul style="list-style-type: none"> The closest surface water feature is 10 km away. The Yule River Water Reserve is a P1 drinking water reserve located 6 km to the northwest of the premises. Groundwater is approximately 8 mbgl. <p>Stormwater controls include:</p> <ul style="list-style-type: none"> The run of mine (ROM) pad is raised by 300 mm above the natural surface to prevent surface water contamination - stormwater is diverted around the crushing and screening facility. Stormwater collected within the ROM pad is directed to sedimentation basins to allow for sediment removal prior to discharge. Sedimentation basins are designed for a 1 in 5 annual recurrence interval (ARI) rainfall event and incorporate a rock armored spillway. <p>Risk is assessed as Medium. Applicant controls will be conditioned to ensure contaminated stormwater from the ROM pad is diverted to the sedimentation basins.</p>
Cat 85 Waste Water Treatment Plant	Treatment of sewage	Odour	No residences or other sensitive receptors in proximity. Residential premises located	Air / wind dispersion	Health and amenity	Slight	Rare	Low	<p>No receptor present and tanks will be fully enclosed.</p> <p>No regulatory controls deemed to be required.</p>

			20km from the premises.				circumstances		
	Sewage pipes and holding tanks.	Sewage and/or brine discharge to land from rupture of pipes / overtopping of holding tanks.	Vegetation adjacent to discharge area.	Direct discharge	Soil contamination inhibiting vegetation growth and survival.	Minor Low level on site impacts.	Rare The risk event may only occur in exceptional circumstances.	Low	<p>The area is sparsely vegetated with <i>Triodia</i> and <i>Acacia</i> species</p> <p>Groundwater is approximately 8 m below ground level so contamination is not expected to infiltrate, particularly with the high evaporation rates in the Pilbara region.</p> <p>The closest surface water is the Yule River 10km away.</p> <p>The following controls will apply to the WWTP as a whole (approved treatment plant 1 and addition of duplicate treatment plant 2):</p> <ul style="list-style-type: none"> • The WWTP will be placed within an earthen bund to capture overflow. • Audible and visual alarms fitted. • Infrastructure will be inspected daily and maintained in accordance with manufacturer's specifications.
			Groundwater	Infiltration through soil.	Contamination of groundwater with salts and nutrients.				

			Surface water	Flow path of the discharge.	Contamination of surface water with salts and nutrients inhibiting vegetation growth and survival.				<ul style="list-style-type: none"> Contingency tanks will be in place to allow a total of 220 m³ storage or treated water. These tanks can also be used for the Reserve Osmosis plant if there were issues. Sludge will be removed by a controlled waste carrier. <p>Risk is assessed as Low. Controls deemed to have lowered risk will be conditioned on the Licence.</p>
	Irrigation of treated effluent and brine.	Treated effluent and brine to land.	Vegetation in the discharge area.	Direct discharge	Soil contamination inhibiting vegetation growth and survival.	Slight Minimal on site impacts.	Possible The risk event could occur at some time.	Low	<p>The proposed application rates are consistent with the recommended maximum nutrient rates outlined in the <i>Water Quality Protection Note 22</i>.</p> <p>The irrigation area is located onsite (so offsite impacts are not expected) and is sparsely vegetated with <i>Triodia</i> and <i>Acacias</i>, which are well represented in the region.</p> <p>Expected brine electrical conductivity of 2,000 µS/cm is classed as medium salinity on a scale of low, medium, high and extreme according to the Department of Sustainability and Environment, Department of Primary Industries, <i>Water salinity tolerance of different crops and stock</i>, 2006 guideline.</p> <p>The irrigation area is pre-disturbed and sparsely vegetated with <i>Triodia</i> and <i>Acacias</i>, which are well represented in the</p>

									<p>region. Visual monitoring for vegetation health will be conducted as required.</p> <p>Sprinklers will be above ground cast iron hammer type with a radius of 17.5 m and will operate once per day.</p> <p>Quarterly monitoring of treated effluent and brine combined will be conducted.</p> <p>Risk is assessed as Low. Controls deemed to have lowered risk will be conditioned on the Licence.</p>
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Decision

The Delegated Officer has determined that the increase in throughput of category 5 due to the crushing of spodumene ore brought on to the premises will not result in emissions which are unacceptable to public health or the environment.

The Delegated Officer has also determined that the construction and operation of the proposed additional sewage treatment plant will not result in emissions which are unacceptable to public health or the environment.

The Delegated Officer considers that the Applicant's controls which contributed to the determination of risk should be conditioned in accordance with *Guidance Statement: Risk Assessments* (February 2017), and the following changes have been made to the Existing Licence:

- The prescribed category table on the front of the Existing Licence has been amended to approve an increased category 5 throughput to 3 Mtpa and increased category 85 throughput to 70 cubic metres per day.
- Condition 3 for construction of works has been updated to include the Applicant's controls for the WWTP treatment plant 2.
- Condition 9 has been added as an Applicant control that is deemed to lower risk of contaminated stormwater.

Definitions have been updated and Attachment 2 Annual Audit Compliance Report form is deleted as it no longer applicable.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 01/02//2018. The Licence Holder advised via email on 1/02/2018 that they would like to waive the consultation period.

Amendment

1. The Premises Production and Design Capacity on page 1 of the licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

CATEGORY NUMBER	CATEGORY DESCRIPTION	CATEGORY PRODUCTION OR DESIGN CAPACITY	PREMISES PRODUCTION OR DESIGN CAPACITY
5	Processing or beneficiation of metallic or non-metallic ore	50,000 tonnes or more per year	2.4 3 <u>3</u> Million tonnes per annum (Mtpa)
85	Sewage facility	More than 20 but less than 100 cubic metres per day	47.5 70 <u>70</u> cubic metres per day

2. Definitions of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

'CEO' for the purposes of notification means:

Chief Executive Officer
 Department Div.3 Pt.V EP Act
 Locked Bag 33 Cloisters Square
 Perth WA 6850
 info@der.wa.gov.au

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33 Cloisters Square
PERTH WA 6850
info@dwer.wa.gov.au

'ROM' means run of mine

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

The Licensee shall construct **and maintain** the WWTP and Reverse Osmosis Plant in accordance with the requirements specified in the infrastructure requirements detailed in Table 3. The Licensee must not depart from the design and construction requirements specified in Table 3 except:

- (a) where such departure is minor in nature and does not materially change or affect the infrastructure; or
- (b) where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment;
- (c) and all other conditions in this Licence are still satisfied.

Table 3: Infrastructure requirements

Infrastructure	Requirements (Design and construction)																
WWTP (<u>Treatment plants 1 and 2</u>) and RO Plant	<p><u>Designed to treat sewage to the following effluent discharge quality:</u></p> <table border="1" data-bbox="547 1406 1361 1892"> <thead> <tr> <th data-bbox="547 1406 959 1467">Parameter</th> <th data-bbox="959 1406 1361 1467">effluent concentration</th> </tr> </thead> <tbody> <tr> <td data-bbox="547 1467 959 1529"><u>pH</u></td> <td data-bbox="959 1467 1361 1529"><u>6.5-8.5</u></td> </tr> <tr> <td data-bbox="547 1529 959 1592"><u>Total Suspended Solids</u></td> <td data-bbox="959 1529 1361 1592"><u><30 mg/L</u></td> </tr> <tr> <td data-bbox="547 1592 959 1655"><u>Biochemical Oxygen Demand</u></td> <td data-bbox="959 1592 1361 1655"><u><20 mg/L</u></td> </tr> <tr> <td data-bbox="547 1655 959 1718"><u>Total Nitrogen (TN)</u></td> <td data-bbox="959 1655 1361 1718"><u><30 mg/L</u></td> </tr> <tr> <td data-bbox="547 1718 959 1780"><u>Total Phosphorus (TP)</u></td> <td data-bbox="959 1718 1361 1780"><u><8 mg/L</u></td> </tr> <tr> <td data-bbox="547 1780 959 1843"><u>E.coli</u></td> <td data-bbox="959 1780 1361 1843"><u><1,000 cfu/100mL</u></td> </tr> <tr> <td data-bbox="547 1843 959 1892"><u>Residual Chlorine</u></td> <td data-bbox="959 1843 1361 1892"><u>0.2-2.0 mg/L</u></td> </tr> </tbody> </table> <p>Placed within an earthen bund to capture overflow. Audible and visual alarms fitted. Contingency tanks in place to allow two days <u>a total of 220</u></p>	Parameter	effluent concentration	<u>pH</u>	<u>6.5-8.5</u>	<u>Total Suspended Solids</u>	<u><30 mg/L</u>	<u>Biochemical Oxygen Demand</u>	<u><20 mg/L</u>	<u>Total Nitrogen (TN)</u>	<u><30 mg/L</u>	<u>Total Phosphorus (TP)</u>	<u><8 mg/L</u>	<u>E.coli</u>	<u><1,000 cfu/100mL</u>	<u>Residual Chlorine</u>	<u>0.2-2.0 mg/L</u>
Parameter	effluent concentration																
<u>pH</u>	<u>6.5-8.5</u>																
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<u>Residual Chlorine</u>	<u>0.2-2.0 mg/L</u>																

	<p><u>m³ storage of treated effluent and brine.</u></p> <p>Final storage tank to allow for mixing of brine and effluent prior to discharge.</p> <p><u>Treated effluent and brine discharged to a spray field.</u></p> <p><u>Indicative location of WWTP as shown in Attachment 1: Plan of WWTP and spray fields.</u></p>
<p><u>Spray fields</u></p>	<p><u>Total area 3.8 hectare.</u></p> <p><u>Indicative location of spray fields as shown in Attachment 1: Plan of WWTP and spray fields.</u></p>

Note 1: Where the details and commitments of the documents listed in condition 7 are inconsistent with any other condition of this Licence, the conditions of this Licence shall prevail.

4. The Licence is amended by the insertion of the following Condition:

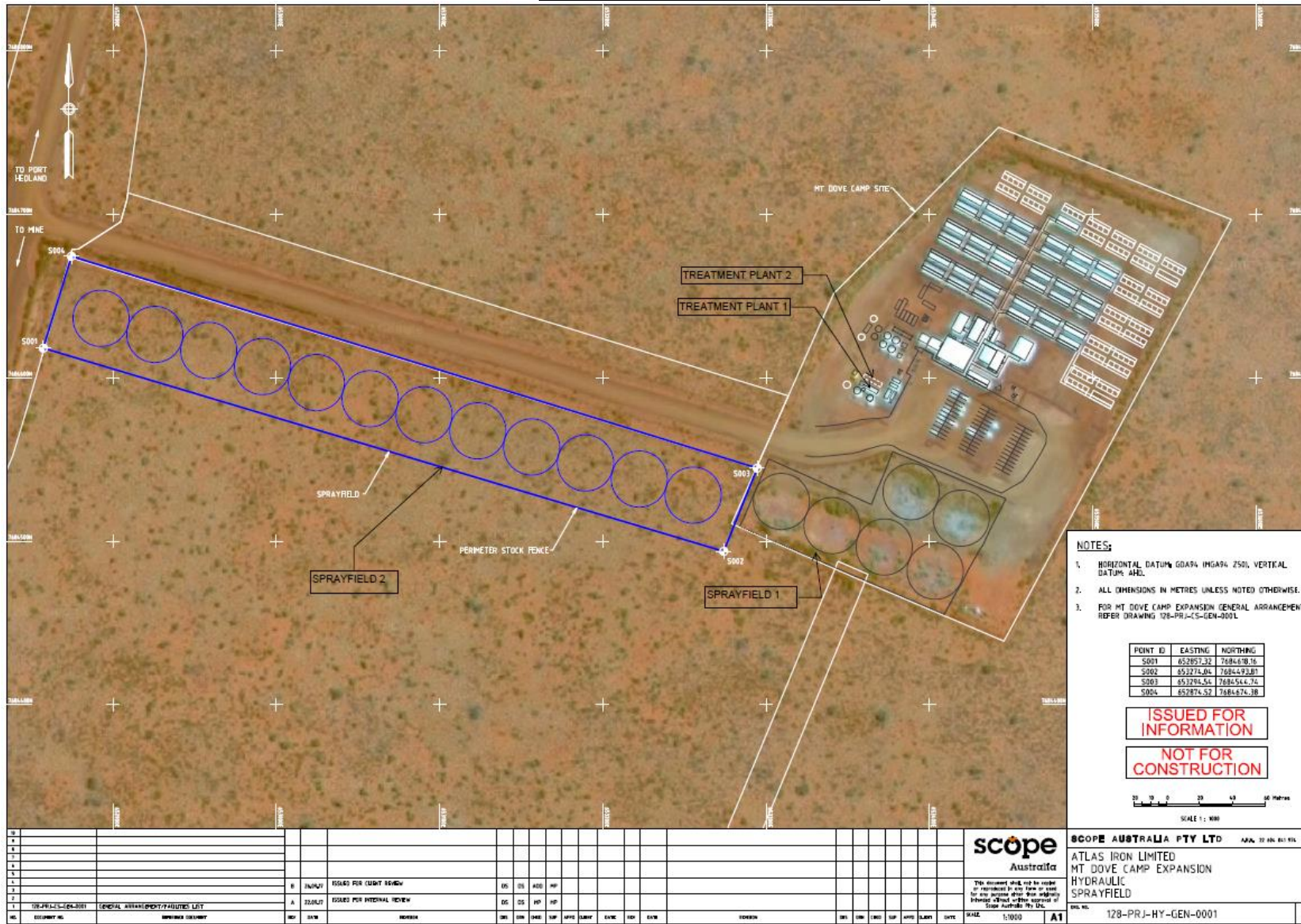
9. The Licence Holder shall ensure stormwater runoff from the ROM pad is directed to a sedimentation pond maintained to accommodate a 1 in 5 year ARI 72 hour rain event.

5. The Licence is amended by the insertion of the following map in Attachment 1 named Plan of WWTP and spray fields as shown below.

6. Attachment 2 is deleted from the Licence.

ATTACHMENT 2

Plan of WWTP and spray fields

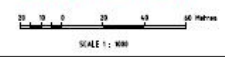


- NOTES:**
1. HORIZONTAL DATUM: GDA94 (MGA94) 2500; VERTICAL DATUM: AHD.
 2. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
 3. FOR MT DOVE CAMP EXPANSION GENERAL ARRANGEMENT REFER DRAWING 128-PRJ-C5-GEN-0001.

POINT ID	EASTING	NORTHING
S001	652857.32	7684678.16
S002	652274.04	7684492.00
S003	653294.54	7684544.74
S004	652874.52	7684674.38

ISSUED FOR INFORMATION

NOT FOR CONSTRUCTION



REV	DESCRIPTION	DATE	BY	CHKD	APPD	DATE	REVISION	REV	CHKD	APPD	DATE
1	ISSUED FOR LIGHT REVIEW	05/05/2017	ADD	HP							
2	ISSUED FOR INTERNAL REVIEW	05/05/2017	HP								

scope
Australia

SCOPE AUSTRALIA PTY LTD AKA 32 4th FL R/L
ATLAS IRON LIMITED
MT DOVE CAMP EXPANSION
HYDRAULIC
SPRAYFIELD

128-PRJ-HY-GEN-0001

SCALE 1:1000 **A1**

Appendix 1: Key documents

Document title	In text ref	Availability
<i>Application form with Mt Dove DSO – Amendment Application (L8678) Supplementary Documentation, Atlas Iron Limited, 12/10/2017 (received by email on 13 October 2017).</i>	Application	DWER records (A1540338)
Email: <i>Subject: Re: Applicant Notification - L8678/2012/1 - Application For An Amendment To Licence - Request For Further Information</i> , from Brandan Bow, Atlas Iron Limited, Sent 9/11/2017 2:27PM		DWER records (A1560085)
<i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth. October 2015.	-	accessed at www.dwer.wa.gov.au
<i>Guidance Statement: Environmental Siting</i> Department of Environment Regulation, Perth. November 2016	<i>Guidance Statement: Environmental Siting</i>	
<i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth. February 2017.	<i>Guidance Statement: Risk Assessments.</i>	
<i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth. February 2017.	-	
Works Approval W6051/2017/1 Pilgangoora Lithium-Tantalum Project	W6051/2017/1	accessed at www.dwer.wa.gov.au
Works Approval W5181/2012/1 Mt Dove DSO Project	W5181/2012/1	DWER records (515609)
<i>Water Quality Protection Note 22</i> , Department of Water, WA, 2008	WQPN 22	accessed at www.dwer.wa.gov.au

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 1/02/2018 for review and comment. The Licence Holder responded on 1/02/2018 with no comments, waiving the remaining comment period.