



Licence number	L8666/2012/2
Licence holder	Northern Star (Carosue Dam) Pty Ltd
ACN	116 649 122
Registered business address	Level 1, 388 Hay Street SUBIACO WA
DWER file number	2012/004732-1
Duration	17/09/2015 to 16/09/2032
Date of transfer	2/08/2021
Premises details	Mt Celia Mining tenements M39/307, M39/740, L39/128, L39/130 and L39/134 MENZIES WA 6436

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production capacity
Category 6: Mine dewatering – premises on which water is extracted and discharged into the environment to allow mining of ore	500,000 tonnes per annual period
Category 89: Putrescible landfill	4,500 tonnes per year

This licence is granted to the licence holder, subject to the attached conditions, on 2 August 2021, by:

Lauren Edmands

MANAGER – RESOURCE INDUSTRIES

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

Licence history

Date	Reference number	Summary of changes
09/02/2012	W5114/2011/1	Dewatering works approval
17/09/2012	L8666/2012/1	New application
20/08/2015	L8666/2012/2	Licence re-issue
24/09/2015	W5887/2015/1	Works approval for new category 89 putrescible landfill
17/12/2015	L8666/2012/2	Amendment to include category 89 following compliance of works approval W5887/2015/1
2/08/2021	L8666/2012/2	Licence transfer from Saracen Mineral Holdings Limited to Northern Star (Carosue Dam) Pty Ltd (this amendment)

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Introduction

This Introduction is not part of the Licence conditions.

The DWER's industry licensing role

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

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process, DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER 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/Licence Holder 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 Western Australian Legislation website using the following link: <https://www.legislation.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

The Mt Celia Project forms part of the Saracen Gold Mines Pty Ltd (Saracen) Carosue Dam Operations (CDO) and consists of the Safari and Deep South mining areas. The Mt Celia Project is located approximately 150 km north-east of Kalgoorlie in the Yarri area of the Eastern Goldfields, in the Shire of Menzies and on the Edjudina and Mt Weld pastoral leases. Ore mined from the Mt Celia Project is transported to Carosue Dam for processing at the processing plant.

The Mt Celia Project consists of:

- Deep South Underground Mine, Open Pit and associated Waste Rock Dump/Mineralised Waste Dump;
- Haul and access roads;
- Active dewatering pipeline from Deep South pit to Safari pit via the Deep South turkey's nest;
- Dewatering storage tanks;
- Flood diversion bund;
- Dewatering dust suppression and monitoring bores;
- Dewatering storage pit – Safari and associated waste dump;
- Putrescible landfill and bioremediation cells;
- Rehabilitated old accommodation and office sites from pre-Northern Star operations; and
- Administration and workshop areas, including refuelling infrastructure and wash-down bay;
- Core Storage area; and
- Magazine.

Under previous Saracen ownership, dewatering of the Deep South Pit originally commenced in September 2012 and ceased in May 2013. Upon completion of open pit mining, the site was decommissioned and placed temporarily on care and maintenance. Dewatering operations recommenced in August 2015 in preparation for underground mining. The Deep South Underground Project commenced in October 2015 and has since operated sporadically with minor periods of care and maintenance. The Deep South mine is currently active and has an expected mine life of two years.

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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:

‘AACR’ means Annual Audit Compliance Report, a report in a format approved by the CEO as presented by the Licence Holder or as specified by the CEO from time to time and published on the Department’s website and a copy of the AACR form is accessible from the DWER website

‘Act’ means the *Environmental Protection Act 1986*;

‘annual period’ means the inclusive period from 1 November until 31 October in the following year;

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

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

‘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 10
JOONDALUP DC WA 6027
Telephone: (08) 6367 7000
Facsimile: (08) 6367 7001
Email: info@dwer.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;

‘Licence’ means this Licence numbered L8666/2012/2 and issued under the Act;

‘Licence Holder’ means the person or organisation named as Licence Holder 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;

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

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

‘Schedule 1’ means Schedule 1 of this Licence unless otherwise stated;

‘Schedule 2’ means Schedule 2 of this Licence unless otherwise stated;

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

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

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.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2 Premises operation

1.1.6 The Licence Holder shall ensure that all pipelines containing saline water are either:

- (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
- (b) equipped with automatic cut-outs in the event of a pipe failure; or
- (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

1.1.7 The Licence Holder shall ensure that any saline dewatering effluent shall only be used for dust suppression in a manner that minimises damage to surrounding vegetation.

1.1.8 The Licence Holder shall ensure that mine dewater is only discharged into containment dams with the relevant infrastructure requirements and at the locations specified in Table 1.2.1 as shown in the Premises Map.

Table 1.2.1: Containment Infrastructure

Containment point reference	Material	Infrastructure requirements
Deep South turkey's nest	Mine Dewater	HDPE lined

1.1.9 The Licence Holder shall manage containment cells and ponds in Table 1.2.1 such that a minimum top of embankment freeboard of 300mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained.

1.1.10 The Licence Holder shall:

- (a) undertake inspections as detailed in Table 1.2.2;
- (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
- (c) maintain a record of all inspections undertaken.

Table 1.2.2: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Deep South turkey's nest	Visual integrity	Once every 12 hours when in operation
Dewatering pipeline	Visual integrity	Once every 12 hours when in operation

1.1.11 The Licence Holder shall ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements in Table 1.2.3.

Table 1.2.3: Waste management table

Waste types	Process(es)	Process limits ^{1,2}
Inert Waste Type 1	Disposal of waste by landfilling	<p>All waste types</p> <p>Disposal of waste by landfilling shall only take place within the landfill area shown on the Landfill Area Map in Schedule 1.</p> <p>No waste shall be temporarily stored or landfilled within 35 metres from the boundary of the premises.</p> <p>The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2m.</p>
Putrescible waste		
Clean fill		
Hydrocarbon contaminated waste	Bioremediation	Bioremediation shall only take place within the bioremediation cells located on the map in Schedule 1.

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*

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*.

- 1.1.12 The Licence Holder shall ensure that cover is applied and maintained on landfilled waste in accordance with Table 1.2.4 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.2.4: Cover requirements	
Waste types	Cover requirements
Inert Waste Type 1	No cover required
Putrescible waste	To be covered fortnightly with sufficient quantities of Type 1 inert waste, clean fill or other appropriate cover material to prevent the spread of fire and harbouring of disease vectors.

- 1.1.13 The Licence Holder shall ensure that wind-blown waste is collected on at least a monthly basis and returned to the tipping area.

2 Emissions

2.1 General

- 2.1.1 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Point source emissions to groundwater

- 2.2.1 The Licence Holder shall ensure that where waste is emitted to groundwater from the emission points in Table 2.2.1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Point source emissions to groundwater		
Emission point reference	Description	Source including abatement
Safari pit	Mine dewater	Water from dewatering of Deep South pit and underground workings

- 2.2.2 The Licence Holder shall not cause or allow point source emissions to groundwater greater than the limits listed in Table 2.2.2

Table 2.2.2: Point source emission limits to groundwater			
Emission point reference	Parameter	Limit (including units)	Averaging period
Safari pit	Dewatering volume	500 000 tonnes	Annual
Safari pit	Standing water level	4 mbgl	Monthly

3 Monitoring

3.1 General monitoring

- 3.1.1 The Licence Holder shall ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
 - (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.
- 3.1.2 The Licence Holder shall ensure that :
- (a) monthly monitoring is undertaken at least 15 days apart; and
 - (b) quarterly monitoring is undertaken at least 45 days apart.

3.2 Monitoring of point source emissions to groundwater

- 3.2.1 The Licence Holder 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 groundwater			
Emission point reference	Parameter	Units	Frequency ¹
Safari pit	Volume of mine dewater	kL	Cumulative monthly total
	Standing water level ²	mAHD	Monthly
	pH ³	-	Quarterly
	Total dissolved solids	mg/L	Quarterly

Note 1: Frequency only required during periods of operation

Note 2: To be determined prior to collection of samples for other parameters

Note 3: In-field, non-NATA accredited analysis permitted

4 Information

4.1 Records

- 4.1.1 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) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

- 4.1.2 The Licence Holder shall complete an Annual Audit Compliance Report indicating the extent to which the Licence Holder 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.
- 4.1.3 The Licence Holder 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.

4.2 Reporting

- 4.2.1 The Licence Holder shall submit to the CEO an Annual Environmental Report by 31 January each year. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table	Parameter	Format or form ^{1, 2}
-	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
Table 3.2.1	Monitoring of point source emissions to groundwater	None specified
4.1.2	Compliance	Annual Audit Compliance Report (AACR) ²
4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

Note 2: The Annual Audit Compliance Report is available from DWER's website at:

<https://www.der.wa.gov.au/our-work/licences-and-works-approvals/publications>

- 4.2.2 The Licence Holder shall ensure that the Annual Environmental Report also contains:
- (a) any relevant process, production or operational data; and
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits.
- 4.2.3 The Licence Holder shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements				
Condition or table	Parameter	Reporting period	Reporting date	Format or form
-	Copies of original monitoring reports submitted to the Licence Holder by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licence Holder from third parties

4.3 Notification

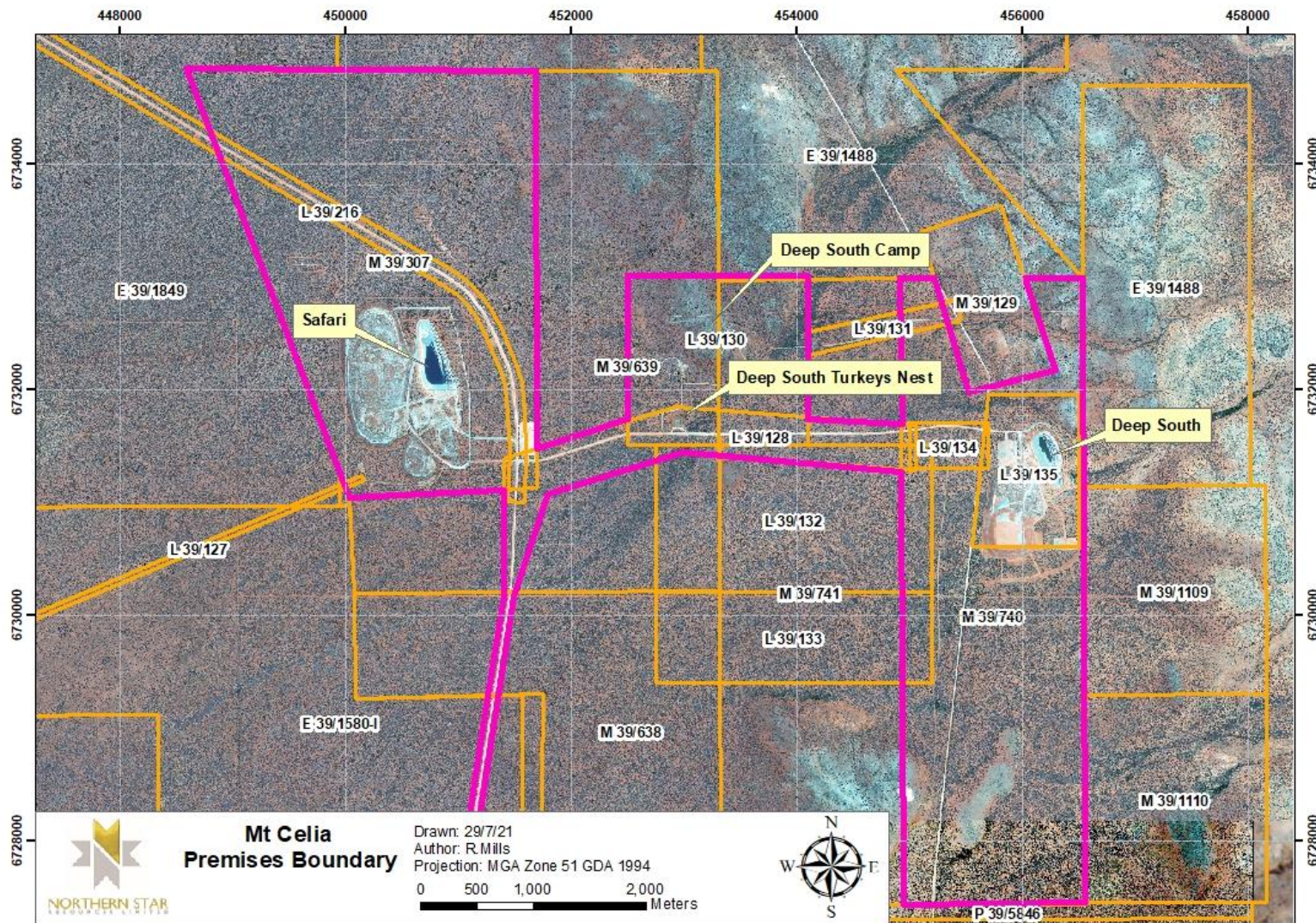
4.3.1 The Licence Holder shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table	Parameter	Notification requirement	Format or form ¹
	Breach of any limit specified in the Licence	No later than 5pm of the next usual working day.	N1
-	Notification of suspension of operations (care and maintenance) or intention to come out of care and maintenance.	At least 30 calendar days	None specified

Note 1: Forms are in Schedule 2



The Premises is shown in the map below. The pink line depicts the Premises boundary (closer extent).



Schedule 2: Reporting & notification form

Licence: L8666/2012/2 Licence Holder: Northern Star (Carosue Dam) 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 Northern Star (Carosue Dam) Pty Ltd	
Date	