Licence number L8666/2012/2

Licence holder Northern Star (Carosue Dam) Pty Ltd

**ACN** 116 649 122

Registered business address Level 4, 500 Hay Street

SUBIACO WA 6008

**DWER file number** INS-0001806

**Duration** 17/09/2015 to 16/09/2032

Date of issue 20/08/2015

Date of amendment 31/07/2025

Premises details Mt Celia

MENZIES WA 6436

Legal description -

Mining tenements M39/307, M39/740

Miscellaneous licence L39/128, L39/130, and

L39/134.

As depicted by the premises map in Schedule 1.

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production / design capacity
Category 6: Mine dewatering	3,000,000 tonnes per annual period
Category 89: Putrescible landfill	4,500 tonnes per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 31 July 2025, by:

#### MANAGER, RESOURCE INDUSTRIES **ENVIRONMENTAL REGULATION (STATEWIDE DELIVERY)**

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	
31/07/2025	L8666/2012/2	Amendment to increase Category 6 assessed production capacity from 500,000 tonnes per annual period to 3,000,000 tonnes per annual period and authorise discharge of mine dewatering to Deep South pit.	

## Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition;
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
  - (i) if dated, refers to that particular version; and
  - (ii) if not dated, refers to the latest version and therefore may be subject to change over time;
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

**NOTE:** This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

## Licence conditions

The licence holder must ensure that the following conditions are complied with:

### Infrastructure and equipment

- **1.** The licence holder must 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.
- 2. The licence holder must ensure that any saline mine dewater must only be used for dust suppression in a manner that minimises damage to surrounding vegetation.
- 3. The licence holder must ensure that mine dewater is only discharged into containment infrastructure with the relevant infrastructure requirements and at the locations specified in Table 1.

**Table 1: Containment infrastructure requirements** 

Containment infrastructure reference	Containment infrastructure	Material	Infrastructure requirements
Deep South turkey's nest	Labelled as 'Deep South Turkey Nest, as shown in Figure 2.	Mine dewater	HDPE-lined

4. The licence holder must ensure that a freeboard equal to or greater than that specified in Table 2 is maintained for each containment infrastructure or emission point specified in Table 2.

**Table 2: Freeboard requirements** 

Containment infrastructure / emission point reference	Containment infrastructure / emission point location	
Safari Bore Pit	Labelled as 'Safari Bore Pit', as shown in Figure 2.	None specified.
Deep South Pit	Labelled as 'Deep South Pit', as shown in Figure 2.	6 m
Deep South turkey's nest	Labelled as 'Deep South Turkey Nest', as shown in Figure 2.	300 mm or sufficient freeboard to contain a 1-in-100-year storm event for 72 hours (whichever is greater).

- **5.** The licence holder must:
  - (a) undertake inspections as detailed in Table 3;
  - (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 3: Inspection of infrastructure** 

Scope of inspection	Inspection location	Type of inspection	Frequency of inspection
Deep South Pit	Labelled as 'Deep South Pit', as shown in Figure 2.	Visual for freeboard	Once every 24 hours, when mine dewater is being discharged.
Deep South turkey's nest	Labelled as 'Deep South Turkey Nest', as shown in Figure 2.	Visual integrity	Once every 12 hours, when in operation.
Dewatering pipelines	Labelled as 'Dewatering Pipeline route/corridor', as shown in Figure 2.	Visual integrity	Once every 12 hours, when in operation.

6. The licence holder must 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 4.

**Table 4: Waste management** 

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

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

7. The licence holder must ensure that cover is applied and maintained on landfilled waste in accordance with Table 5 and that sufficient stockpiles of cover are maintained on site at all times.

**Table 5: Cover requirements** 

Waste types	Cover requirements
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.

**8.** The licence holder must ensure that windblown waste is collected on at least a monthly basis and returned to the tipping area.

## **Emissions and discharges**

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.

- **9.** The licence holder must record and investigate the exceedance of any descriptive or numerical limit specified in any part of this licence.
- **10.** The licence holder must ensure that, where waste is emitted to groundwater from the emission points in Table 6, it is done so in accordance with the conditions of this licence.

Table 6: Point source emissions to groundwater

Emission point reference	Emission point location	Description	Source, including abatement	Limit	Averaging period
Safari Bore Pit	Labelled as 'Safari Bore Pit', as shown in Figure 2.	Mine dewater	Water from dewatering of Deep South Pit and underground workings.	500,000 tonnes	Annual
Deep South Pit	Labelled as 'Deep South Pit', as shown in Figure 2.	Mine dewater	Water from dewatering of Safari Bore Pit.	3,000,000 tonnes	Annual

## **Monitoring**

- **11.** The licence holder must ensure that:
  - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all surface water sampling is conducted in accordance with AS/NZS 5667.4;
  - (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
  - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measures, unless indicated otherwise in the relevant table.
- **12.** The licence holder must ensure that:
  - (a) monthly monitoring is undertaken at least 15 days apart; and
  - (b) quarterly monitoring is undertaken at least 45 days apart.
- **13.** The licence must undertake the monitoring in Table 7 and Table 8 according to the specifications in those tables.

**Table 7: Monitoring of ambient surface water** 

Monitoring point reference	Monitoring point location	Parameter	Unit	Frequency <sup>1</sup>	Averaging period
Safari Bore Pit	Labelled as 'Safari Bore	Volume of mine dewater discharged	kL	Cumulative monthly total	Spot sample
	Pit', as shown in Figure 2.	Standing water level	mAHD; mbgl	Monthly	

Monitoring point reference	Monitoring point location	Parameter	Unit	Frequency <sup>1</sup>	Averaging period
		pH <sup>2</sup>	pH unit	Quarterly	
		Total dissolved solids	mg/L		
Deep South Pit	Labelled as 'Deep South	Volume of mine dewater discharged	kL	Cumulative monthly total	Spot sample
	Pit', as shown in Figure 2.	Standing water level	mAHD; mbgl	Monthly	
		pH <sup>3</sup>	pH unit	Quarterly	
		Total dissolved solids	mg/L		
		Major ions:	mg/L		
		Total and dissolved metals and metalloids:	mg/L		

Note 1: Frequency only required during periods of mine dewater discharge at these locations.

**Table 8: Monitoring of ambient groundwater** 

Monitoring point location	Parameter	Unit	Frequency <sup>1</sup>	Averaging period
As shown in Table .	Standing water level <sup>2</sup>	mAHD; mbgl	Quarterly	Spot sample
	pH <sup>3</sup>	pH unit		
	Total dissolved solids	mg/L		
	Major ions:	mg/L		
	Calcium     Sodium			
	point location As shown	As shown in Table .  Standing water level <sup>2</sup> pH <sup>3</sup> Total dissolved solids  Major ions:	As shown in Table .  Standing water level <sup>2</sup> mAHD; mbgl pH <sup>3</sup> pH unit  Total dissolved solids mg/L  Major ions: mg/L  • Calcium	As shown in Table .  Standing water level <sup>2</sup> mAHD; mbgl pH unit  Total dissolved solids mg/L  Major ions: mg/L  • Calcium

Note 2: In-field, non-NATA accredited analysis permitted.

Monitoring point reference	Monitoring point location	Parameter	Unit	Frequency <sup>1</sup>	Averaging period
• DSMB1		Potassium     Magnesium     Chloride     Sulfate     Bicarbonate alkalinity  Dissolved metals and metalloids:     Arsenic     Cadmium     Chromium     Copper     Manganese     Nickel     Selenium     Zinc.	mg/L		

- Note 1: Frequency only required during periods of mine dewater discharge at Deep South Pit.
- Note 2: To be determined prior to collection of samples for other parameters.
- Note 3: In-field, non-NATA accredited analysis permitted.

### **Records and reporting**

#### Records

- 14. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:
  - (a) the name and contact details of the complainant, (if provided);
  - (b) the time and date of the complaint;
  - (c) the complete details of the complaint and any other concerns or other issues raised; and
  - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- **15.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
  - (a) the calculation of fees payable in respect of this licence;
  - (b) the works conducted in accordance with condition of this licence;
  - (c) any maintenance of infrastructure that is performed in the course of complying with condition 3 of this licence;
  - (d) monitoring programmes undertaken in accordance with condition 13 of this licence; and
  - (e) complaints received under condition 14 of this licence.

- **16.** The books specified under condition 16 must:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
  - (c) be retained by the licence holder for the duration of the licence; and
  - (d) be available to be produced to an inspector or the CEO as required.

#### Reporting

#### **17.** The licence holder must:

- (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period, and
- (b) prepare and submit to the CEO an Annual Audit Compliance Report in the approved form by 31 January each year.

#### **18.** The licence holder must:

- (a) prepare an Environmental Report that provides information in accordance with Table 9 for the preceding two annual periods, and
- (b) submit that Environmental Report to the CEO by 31 January 2024 and biennially thereafter.

**Table 9: Environmental reporting requirements** 

Condition or table	Parameter	Format or form <sup>1,2</sup>
-	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	Summary of ambient surface water and groundwater monitoring, including assessment of trends over time and assessment against relevant limits specified in the licence.	Monitoring data must be provided in a tabulated editable format.
Condition 17	Compliance	Annual Audit Compliance Report (AACR) <sup>2</sup>
Condition 14	Complaints summary	None specified.

Note 1: Forms in Schedule 2.

*Note 2:* The Annual Audit Compliance Report is available from DWER's website at: <a href="https://www.der.wa.gov.au/our-work/licences-and-works-approvals/publications">https://www.der.wa.gov.au/our-work/licences-and-works-approvals/publications</a>.

**19.** The licence holder must submit the information in Table 10 to the CEO according to the specifications in that table.

Table 10: 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.

**20.** The licence holder must ensure that the parameters listed in Table 11 are notified to the CEO in accordance with the notification requirements of the table.

**Table 11: Notification requirements** 

Condition or table	Parameter	Notification requirement	Format or form <sup>1</sup>
-	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.

## **Construction phase**

- **21.** The licence holder must:
  - (a) construct and/or install the infrastructure;
  - (b) in accordance with the corresponding design and installation requirements; and
  - (c) at the corresponding infrastructure location,

as set out in Table 12.

Table 12: Design and installation requirements

Item	Infrastructure	Design and installation requirements	Infrastructure location
1	Dewatering pipeline from Safari Bore Pit to Deep South Pit	<ul> <li>Must contain a pumping rate of no more than 250 L/s.</li> <li>Must be equipped with flowmeters at both Safari Bore Pit and Deep South Pit.</li> <li>Must be:         <ul> <li>equipped with telemetry systems and pressure sensors along the pipeline to allow the detection leaks and failures;</li> <li>equipped with automatic cut-outs in the event of a pipe failure; or</li> <li>installed within secondary containment with sufficient capacity to contain any spill for a period equal to the time between routine inspections or greater.</li> </ul> </li> <li>Dust suppression must be undertaken during installation of infrastructure, where required.</li> </ul>	Labelled as 'Dewatering Pipeline route/corridor', as shown in Figure 2.
	Booster pump station	<ul> <li>Fuel storage must be self-bunded or installed within concrete bunding equipped with sump.</li> <li>Dust suppression must be undertaken during installation of infrastructure,</li> </ul>	Labelled as 'Booster Pump Station', as shown in Figure 2.

Item	Infrastructure	Design and installation requirements	Infrastructure location
		where required.	

- **22.** The licence holder must within 30 calendar days of an item of infrastructure required by condition 21 being installed:
  - (a) undertake an audit of their compliance with the requirements of condition 21;
     and
  - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
- **23.** The Environmental Compliance Report required by condition 22 must include, as a minimum, the following:
  - (a) certification by a suitably qualified professional that the items of infrastructure or component(s) thereof, as specified in condition 22, have been installed in accordance with the relevant requirements specified in condition 22;
  - (b) as-constructed plans and a detailed site plan for each item of infrastructure of component of infrastructure specified in condition 22 and
  - (c) be signed by a person authorised to represent the licence holder and contains the printed name and position of that person.

# **Definitions**

In this licence, the terms in Table 13 have the meanings defined.

**Table 13: Definitions** 

Term	Definition
ACN	Australian Company Number.
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates are available on the Department's website).
annual period	a 12-month period commencing from 1 November until 31 October of the immediately following year.
biennially	means every two years.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling, Part 1: Guidance of the design of sampling programs, sampling techniques, and the preservation and handling of samples.
AS/NZS 5667.4	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling, Part 4: Guidance on sampling from lakes, natural and manmade.
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling, Part 11: Guidance on sampling of groundwaters.
averaging period	means the time over which a limit is measured or a monitoring result is obtained.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the department.
	"submit to / notify the CEO" (or similar), means either:
	Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919
	or:
	<u>info@dwer.wa.gov.au</u>
department; DWER	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	Environmental Protection Act 1986 (WA)

Term	Definition
EP Regulations	Environmental Protection Regulations 1987 (WA)
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
NATA	means the National Association of Testing Authorities, Australia.
NATA- accredited	refers to the analysis of a sample by a laboratory that is NATA-accredited for the specified analysis at the time of the analysis.
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
usual working day	means 0800-1700 hours, Monday to Friday, excluding public holidays in Western Australia.
waste	has the same meaning given to that term under the EP Act.

#### **END OF CONDITIONS**

# Schedule 1: Maps

## **Premises map**

The boundary of the prescribed premises is shown in the map below (Figure 1).

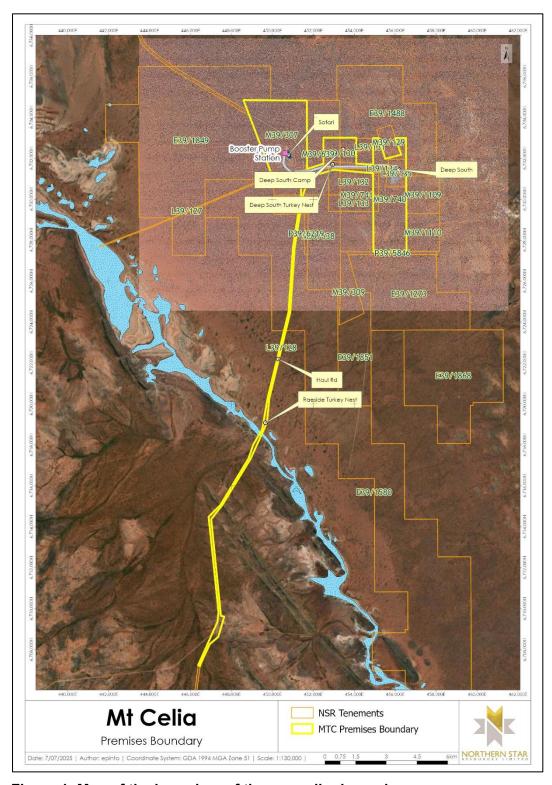


Figure 1: Map of the boundary of the prescribed premises

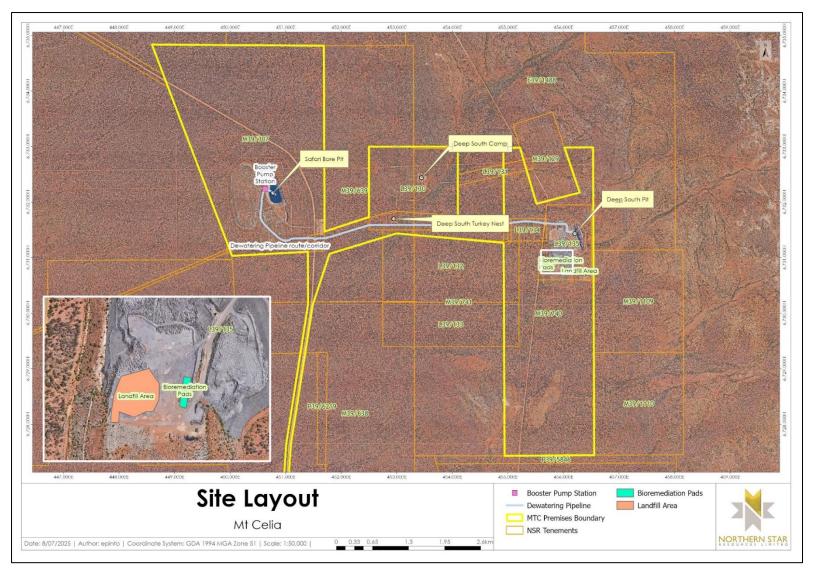


Figure 2: Site layout

L8666/2012/2 (Amended: 31 July 2025)

IR-T06 Licence template (v10.0) (May 2024)

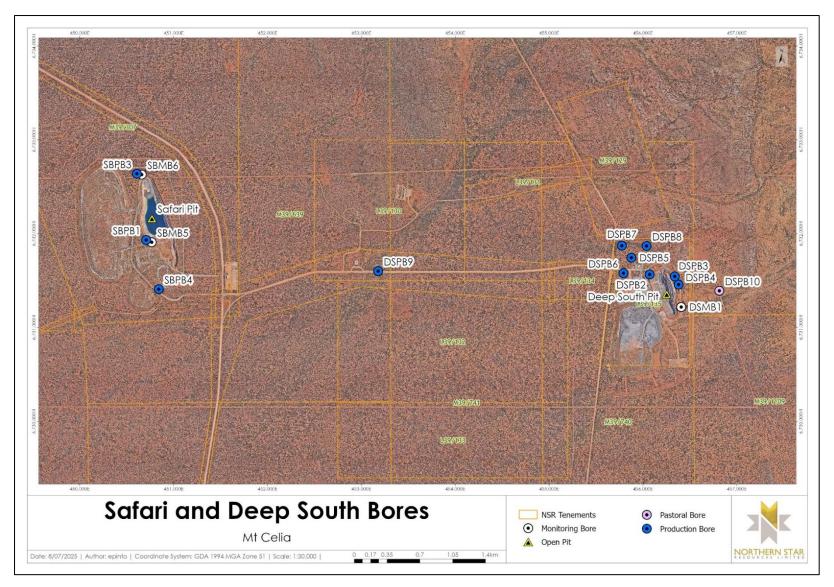


Figure 3: Ambient groundwater monitoring locations

L8666/2012/2 (Amended: 31 July 2025)

IR-T06 Licence template (v10.0) (May 2024)

# Schedule 2: Reporting and notification form

		9		
Licence: Ltd	L8666/2012/2	Licence	e Holder:	Northern Star (Carosue Dam) Pty
Form:	N1	Date of	breach:	
Notification	n of detection of th	ne breach of	a limit.	
These page	es outline the inform	ation that the	operator m	ust provide.
Units of me appropriate	asurement used in	information sules of the emis	upplied und	er Part A and B requirements shall be e appropriate, a comparison should be
Part A				
Licence Num	nber			
Name of ope	erator			
Location of F	Premises			
Time and da	te of the detection			
Notification	n requirements for t	ho broach of a	limit	
	int reference/ source	ile breach of a	· · · · · · · · · · · · · · · · · · ·	
Parameter(s				
Limit	,			
Measured va	alue			
	ne of monitoring			
	ken, or intended to			
be taken, to	stop the emission			
Part B				
Any more ac	curate information on th	e matters for		
notification u	nder Part A.			
	ken, or intended to be ta	aken, to		
	currence of the incident.	4 4:6.		
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				
	the preceding 24 month			
Name				
Post				
Signature on	behalf of			
Northern Sta	ır (Carosue Dam) Pty Lt	d		
Date				