



## Application for Licence

### Division 3, Part V *Environmental Protection Act 1986*

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<b>Licence Number</b>	L9401/2023/1
<b>Applicant</b>	Australia Western Railroad Pty Ltd
<b>ACN</b>	094 792 275
<b>File Number</b>	DER2023/000419
<b>Premises</b>	Aurizon Leonora Depot Lot 501 Goldfields Highway Leonora WA 6438  Legal description - Lot 501 on Deposited Plan 60064 Volume: 2758 Folio: 271 As defined by the coordinates in Schedule 2
<b>Date of Report</b>	30 January 2024
<b>Decision</b>	Licence granted

**Abbie Crawford**

**A/Manager, Waste Industries**

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

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## 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, licence L9401/2023/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 27 June 2023, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is seeking a licence relating to storage of packaged controlled waste residue from the production of nickel (waste code D210). The premises is approximately 1.2 km north-west of town of Leonora.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L9401/2023/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in licence L9401/2023/1.

Australia Western Railroad Pty Ltd (the applicant) proposes to store containers of packaged controlled waste residue from the production of nickel (waste code D210) on the hardstand at Leonora rail terminal. At the Kwinana nickel refinery, the residue is taken from the production plant and loaded into containers. It is transported by truck to Aurizon's Kwinana Rail Depot and re-loaded into rail wagons. Each wagon is then transported by train to Leonora. Where logistics chain delays prevent immediate transfer from the train to truck for transfer to Murrin, the contains will be temporarily stored at Leonora.

## 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 *Guideline: Risk Assessments* (DWER 2020).

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 1** below. **Table 1** also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
Dangerous or hazardous waste materials	Spills or leakage of Nickel residue during storage and handling	Seepage in to underlying soils	<ul style="list-style-type: none"> <li>All waste to be packaged in closed sealed containers and tarpaulin covers over containers</li> <li>All waste to be Stored on bitumen hardstand</li> <li>All waste to be stored within an earthen bunded area</li> <li>A sump will be built within the bunded area to capture any spills or leachate from the containers</li> <li>Daily inspections</li> <li>Chemical spill kits located strategically around the premises</li> <li>Site Emergency Response Plan (SERP) in place</li> <li>Trained and experienced personnel</li> </ul>
Contaminated stormwater	Stormwater contaminated after coming into contact with waste material on site.	Infiltration of overland runoff and drainage into groundwater	<ul style="list-style-type: none"> <li>All waste to be packaged in closed sealed containers and tarpaulin covers over containers</li> <li>All waste to be stored on bitumen hardstand</li> <li>A sump will be built within the bunded area to capture any spills or leachate from the containers. Waste generated from the sump will be periodically removed for disposal by returning it to the wagons.</li> <li>Chemical spill kits located strategically around the premises</li> <li>Trained and experienced personnel</li> <li>Volume of the waste to be minimised during periods of forecast wet weather events.</li> <li>To protect the stacked containers from wet weather, an empty container will be placed on top of the stack</li> </ul>
Fire/smoke	Storage of packaged nickel residue (waste code D210)	Air / windborne pathway	<ul style="list-style-type: none"> <li>Fire and Emergency, Safety Response Plan in place;</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
Dust/ Wind blown nickel residual	Storage of packaged nickel residue (waste code D210)	Air / windborne pathway	<ul style="list-style-type: none"> <li>All waste to be packaged in closed sealed containers and tarpaulin covers over containers</li> </ul>

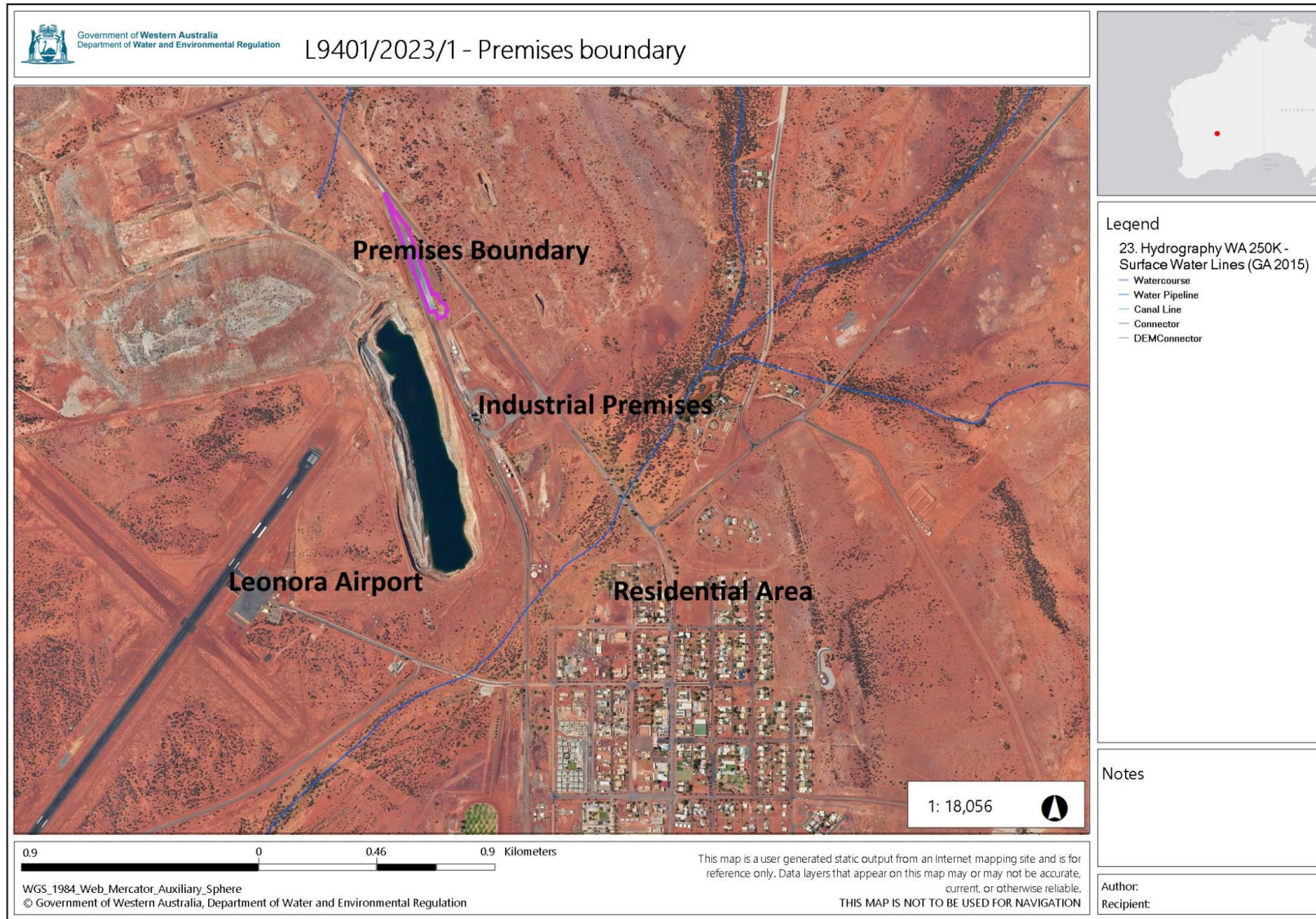
### 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant’s employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 and Figure 1 below provides 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 (*Guideline: Environmental Siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Residential Premises – Town of Leonora	Approximately 1.2 km south-east of the premises
Leonora Airport	Approximately 600 m south-west of the premises
Industrial premises	Approximately 300 m south-east of the premises
Leonora district hospital	Approximately 2.9 km south-east of the premises
Environmental receptors	Distance from prescribed activity
Priority ecological community	Approximately 6.3 km south of the premises boundary - Priority 1 - Melita calcrete groundwater assemblage type on Raeside palaeo drainage on Melita (Sons of Gwalia) Station
Minor surface water lines	Approximately 220 m North and 900 m south-east of the premises boundary
Rights in Water and Irrigation Act – Goldfields Groundwater Area	Premises is within the designated area
Aboriginal Sites and Heritage Places	Premises within the -PAPA KULUNYPA -place id – 1285 -LEONORA (Storage Cache) - place id -1925 - Registered site – place id – 24133 – Women’s place - Ceremonial, Meeting Place within 500 m of the premises boundary Registered site – place id – 20014 - WLN01 Creek within 500 m of the premises boundary Registered site – place id- 20015 – Tank Hill - within 750 m of the premises boundary



**Figure 1: Distance to sensitive receptors**

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IR-T13 Decision report template (short) v3.0 (May 2021)

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) 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 3.

Licence L9401/2023/1 that accompanies this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

**Table 3: Risk assessment of potential emissions and discharges from the premises during operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Operation</b>								
Spills or leakage of Nickel residue during storage and handling	Dangerous or hazardous waste materials	Infiltration in to underlying soils and groundwater causing ecosystem disturbance and impacting surface water quality	Premises within the RIWI Act – Ground water Areas Industrial premises approximately 300 m south-east of the premises Minor surface water lines approximately 220 m North and 900 m south-east Aboriginal Sites and Heritage Places	Refer to Section 3.1	C = Moderate L = Rare <b>Low Risk</b>	Y	<b><u>Condition 1, 2,3,4, 5,6,8 and 9</u></b>	The Delegated Officer considers that the Applicant's proposed controls and the standard conditions within the licence are likely to be sufficient at mitigating emissions from potentially spills and leakage.
Stormwater contaminated after coming into contact with waste material on site.	Contaminated stormwater	Infiltration of overland runoff and drainage into groundwater potentially causing ecosystem disturbance or impacting surface water quality	Residential Premises approximately 1.2 km south-east Industrial premises approximately 300 m south-east of the premises Premises within the RIWI Act – Ground water Areas Minor surface water lines approximately 220 m North and 900 m south-east Aboriginal Sites and Heritage Places	Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	<b><u>Condition 1, 2,4,5, 6,8,9 and 10</u></b>	The Delegated Officer considers that the Applicant's proposed controls and the standard conditions within the licence are likely to be sufficient at mitigating emissions from potentially contaminated stormwater.
Storage of packaged nickel residue (waste code D210)	Fire/Smoke	Air / windborne pathway causing impacts to health and amenity	Residential Premises approximately 1.2 km south-east Industrial premises approximately 300 m south-east of the premises Aboriginal Sites and Heritage Places	Refer to Section 3.1	C = Major L = Rare <b>Medium Risk</b>	Y	<b><u>Condition 7,11 and 12</u></b>	The Delegated Officer considers that the Applicant's proposed controls and the standard conditions within the licence are likely to be sufficient at mitigating fire/smoke emissions.



Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
	Dust/windblown nickel residuals			Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	<b><u>Condition 2 and 5</u></b>	The Delegated Officer considers that the Applicant's proposed controls and the standard conditions within the licence are likely to be sufficient at mitigating dust/wind-blown nickel residuals.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

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

## 4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

**Table 4: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website on 18/08/2023	None received	N/A
Local Government Authority advised of proposal on 28/8/2023	The Shire does not have any objection regarding the proposed activities	N/A
Department of Planning Land and Heritage (DPLH), advised of proposal on 3/10/2023	In reviewing the subject location of the Rail Terminal hardstand against the Aboriginal Cultural Heritage Directory, I can confirm no known Aboriginal Cultural Heritage is present within the immediate vicinity of the hardstand. We note the hardstand is extant and creates a pre-disturbed footprint for the storage activity which is exempt under the current <i>Aboriginal Cultural Heritage Act 2021</i> .	Noted
Contaminated Site branch advised of proposal on 8/9/2023	Contaminated site (CS) branch recommends dust mitigation measures for the premises to prevent the potential windblown exposure from nickel residual (D210) and proposed to include infrastructure to capture contaminated leachate, including management for dealing with contaminated leachate.  Due to the presence of arsenic and lead in the soil, CS branch recommends development and implementation of a site-specific health and safety plan to address the risks to the health of any workers undertaking intrusive works	Delegated Officer agreed with the CS comments and added dust/windblown nickel residuals to the risk assessment.
Applicant was provided with draft documents on 20/11/2023	Refer Appendix 1	Refer Appendix 1

## 5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a licence 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) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

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

Condition	Summary of applicant's comment	Department's response
Condition 1 Table 1	The applicant requested the removal of the waste acceptance specification stating that nickel waste must be dry. The applicant provided a material data sheet indicating that the condition could not be met due to the composition of the waste.	Delegated officer agreed with the request and updated the licence document as requested
Condition 6 Table 3	The applicant provided additional information about hardstand and bunded area of the premises and requested that the licence be updated to reflect that information.	Delegated officer agreed with the request and updated the condition 6 Table 3 and Licence figures as requested.
Decision report: Application summary	The applicant requested that their nickel residual drying process and logistics operation be removed from the decision report as the proposed concept has not yet been implemented.	Delegated officer agreed to remove that information from the decision report and updated the report to reflect the current operations.

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Works approval	<input type="checkbox"/>				
Licence	<input checked="" type="checkbox"/>	Relevant works approval number:		None	<input checked="" type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/>		No <input type="checkbox"/>
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/>		No <input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?	Yes <input type="checkbox"/>		No <input type="checkbox"/>
		Date Report received:			
Renewal	<input type="checkbox"/>	Current licence number:			
Amendment to works approval	<input type="checkbox"/>	Current works approval number:			
Amendment to licence	<input type="checkbox"/>	Current licence number:			
		Relevant works approval number:		N/A	<input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>
Date application received	27/06/2023				
Applicant and Premises details					
Applicant name/s (full legal name/s)	Australia Western Railroad Pty Ltd				
Premises name	Aurizon Leonora Depot				
Premises location	LOT 501 ON DEPOSITED PLAN 60064 Registration Number – 501 / DP 60064 Volume: 2758 Folio: 271				
Local Government Authority	Shire of Leonora				
Application documents					
HPCM file reference number:	DER2023/000419				
Key application documents (additional to application form):	Attachment 1A_Certificate of Title 2758-271 Lot 501 Attachment 1B - ASIC - Australia Western Railroad Pty Ltd - Registered Agents Information Attachment 1C_211126 - ENV - Letter to DWER_Paul Parkinson - AWR Authorised Representative AD signed Attachment 2 - Leonora Rail Terminal - Storage Licence Premises Boundary Attachment 2A - Leonora Waste Storage Licence Premises Boundary Coordinates Attachment 2B - Leonora Rail Terminal – Layout				

	Attachment 3B - Leonora waste storage proposed activities Attachment 7 - Aurizon Leonora Location Map Attachment 8 - Hydrogeology-of-the-Leonora-sheet-explanatory-notes Attachment 8B BHP KNR Residue SDS (1) Attachment 8C_Half height container Attachment 8D_Leonora hardstand 2022 (5) Attachment 9_Licence fee calculator 210318_Anna Dartnell POA - AWR executed
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Scope of application/assessment

Summary of proposed activities or changes to existing operations.

New Licence application for storage of packaged controlled waste residue from the production of nickel (waste code D210) on the hardstand area at the Aurizon Leonora Rail terminal.

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 62: Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use.	More than 5000 tonnes per annum	

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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: N/A Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: N/A EPA Report No:	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No: N/A	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:	
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: N/A Proposed activity falls within the existing scope of planning approval for the Leonora Rail Terminal Expiry date:	

		If N/A explain why?	
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.	
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.	
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: Licence / permit not required.	
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: RIWI Act -Groundwater Area Type: Proclaimed Groundwater Area under Gaz name - Goldfields Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Goldfields	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <a href="#">WQPN 25</a> )? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Dangerous Goods Safety Act 2004 Environmental Protection (Controlled Waste) Regulations 2004,</i>	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: remediated for restricted use (RRU)                  Date of classification: Mar 6, 2013 12:00 AM                  Reason for classification - heavy metals (arsenic and lead) remain in soils in the northern portion of the site, beneath imported fill material.</p>	
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