

**BHP**

**Nickel West Pty Ltd**

**Mount Keith Operations**

**Annual Audit Compliance  
Report**

**L6453/1990/12**

**1<sup>st</sup> January 2021 - 31<sup>st</sup> December 2021**

# Table of Contents

---

<b>Introduction .....</b>	<b>3</b>
<hr/>	
<b>1. Prescribed Premises Categories .....</b>	<b>3</b>
<hr/>	
<b>2. Compliance to L6453.....</b>	<b>4</b>
<hr/>	
<b>Appendix A – DWER AACR Form .....</b>	<b>5</b>

Table 1: L9229/2019/1 prescribed premise throughput..... 3

Table 2: NMK monthly breakdown of prescribed premises Category throughput ..... 4

# Introduction

BHP Billiton Nickel West Pty Ltd (Nickel West) owns and operates the Mt Keith Nickel Operation (NMK) located 460km north of Kalgoorlie. The operation comprises an open cut mine, waste rock dumps, nickel sulphide concentrator, tailings storage facilities, landfills, borefields and associated infrastructure.

The NMK Concentrator produces a concentrate product, which is trucked to the Nickel West's Leinster Operation (NLN) for blending and drying, prior to transportation to Nickel West's Kalgoorlie Smelter and occasional direct export to international markets.

This report has been prepared to meet the reporting requirements of Condition 20 of L6453/1990/12 for the period 1<sup>st</sup> January to 31<sup>st</sup> December 2021.

An Annual Environmental Report to meet Condition 23 of L6453/1990/12 will be submitted to DWER by 30<sup>th</sup> March 2022.

Refer to Mt Keith Operations Prescribed Premises tenure map.

## 1. Prescribed Premises Categories

Compliance with the licenced prescribed premise production or design capacity limits was achieved throughout the reporting period. Table 1 sets out total throughput for categories 5, 54, 57, 64 and 73, and Table 2 sets out a monthly breakdown of the prescribed premises Category throughput.

Table 1: L9229/2019/1 prescribed premise throughput

Category Number	Category Description	Approved Premises Production or Design Capacity	Throughput (1 January 2021 – 31 December 2021)
5	Processing or beneficiation of metallic or non-metallic ore: premises on which - (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed	13,500,000 tonnes per year	9,620,131 tonnes ore crushed
5	Processing or beneficiation of metallic or non-metallic ore: premises on which - (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	13,500,000 tonnes per year	9,412,958 tonnes tailings to TSF
54	Sewage facility	510 m3 per day	294 m3 per day
57	Used Tyre Storage	120 tyres	Average 100 tyres stored at one time
64	Class II putrescible landfill.	2,200 tonnes per year	2,079 tonnes
73	Bulk storage of chemicals	13,500 m3 in aggregate	5953 m3

**Table 2: NMK monthly breakdown of prescribed premises Category throughput**

Date	Ore Milled (tonnes)	Tailings to TSF (tonnes)	Sewage (m3 / day)	Class 2 waste (tonnes)
Jan-21	922,872	904,273	332	163
Feb-21	816,289	799,346	307	149
Mar-21	767,232	746,680	348	148
Apr-21	786,871	770,269	194	172
May-21	870,672	852,364	283	144
Jun-21	721,237	705,734	283	103
Jul-21	802,074	783,406	294	194
Aug-21	952,520	933,758	288	181
Sep-21	731,658	715,396	252	195
Oct-21	746,269	731,631	269	227
Nov-21	583,676	572,026	329	207
Dec-21	918,761	898,075	347	196
<b>Total</b>	<b>9,620,131</b>	<b>9,412,958</b>	<b>294</b>	<b>2,079</b>

## 2. Compliance to L6453

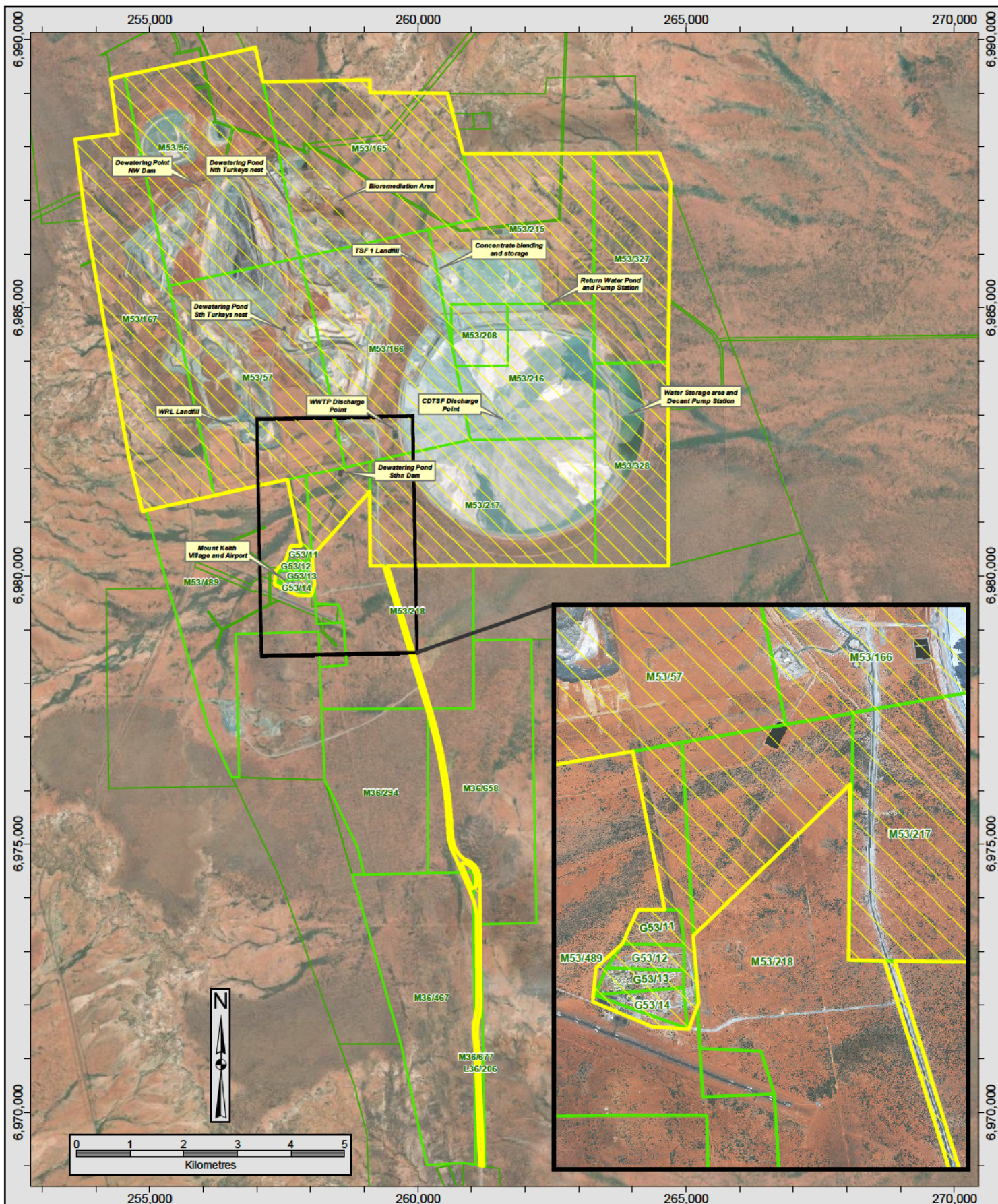
During the reporting period, compliance was met for all licence conditions except for ambient groundwater quality monitoring, Condition 17. Condition 17 requires groundwater monitoring as per Table 6 specifications, and investigation of results that do not meet the specified limits.

Samples and measurements were not obtained from 8 monitoring bores due to access issues and 1 bore has been dry at each monitoring event. Refer to map of Monitoring Bores.

- KMB05-25 and KMB05-50 bore casings were damaged at the time and could not be sampled. They have been subsequently repaired.
- KMB08-08 is not accessible by vehicle and cannot be sampled by vehicle mounted pump. Steps are being taken to investigate access options.
- KMB11-07 and KMB12-22 bore caps have rusted and seized. There is a maintenance work order for these caps to be replaced.
- KMB13-16, KMB13-56 and KMB13-67 bores were inaccessible for vehicle access due to poor ground conditions. There is a maintenance work order being implemented to improve ground conditions.
- Howard's Well was accessible, but was dry at time of sampling.

Nickel West will investigate and remediate the above access issues to enable resumption of the required monitoring as soon as practicable to ensure results can be recorded for the next period as required by Condition 17.





## Legend

- L6453 Boundary
- Affected Tenements
- Other BHP Tenements



**BHP**

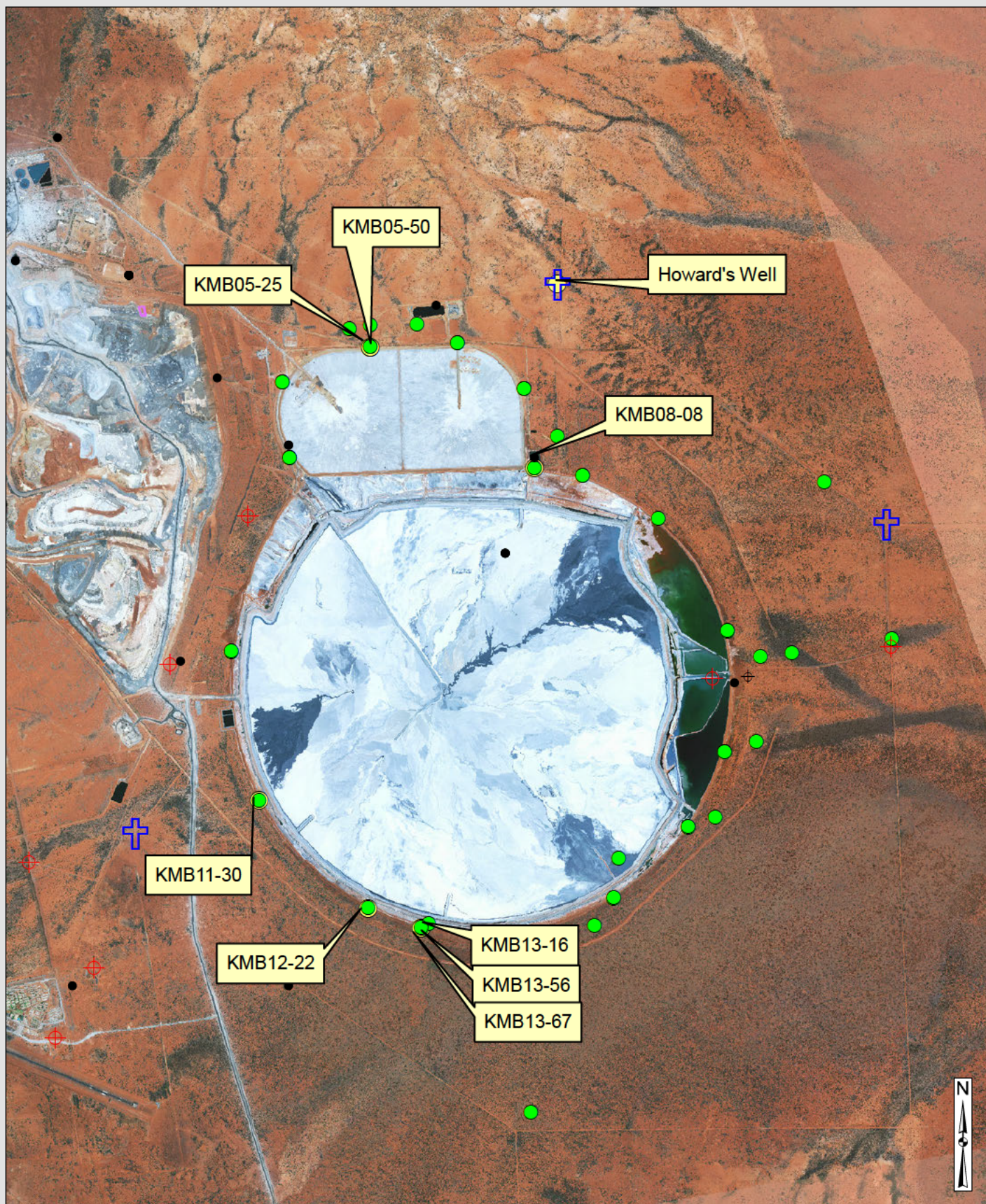
BNW Northern Ops Planning  
BNW Nickel West

## Mt Keith Operations Prescribed Premises Tenure

Coordinate System: GDA 1994 MGA Zone 51

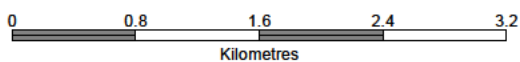
Scale @ A4 1:95,000	Prepared: TJ Richards	Project No:
Date: 16/02/2022	Checked:	Figure: <b>3</b>
	Reviewed:	



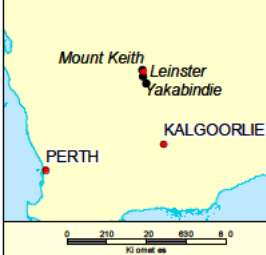


#### Legend

- Monitoring Bores
- ⊕ Production
- Borehole
- ⊕ Stock



#### Location Map



**BHP**

BHP NiW - Northern Operations  
Nickel West

## L6453/1990/12 Monitoring Bores

Coordinate System: GDA 1994 MGA Zone 51 Transverse Mercator

Scale @ A4: 1:48,969

Prepared: A Ignacio

Figure:

Date: 28/02/2022



## **Appendix A – DWER AACR Form**

## Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V

### Section A – Licence Details

Licence number:	L6453/1990/12	Licence file number:	2011/009443
Licence holder:	BHP Nickel West Pty Ltd		
Trading as:			
ACN:	004184598		
Registered address:	125 St Georges Terrace PERTH 6000		
Reporting period:	01/01/2021 to 31 /12 /2021		

### Section B – Statement of Compliance with Licence Conditions

Did you comply with all of your licence conditions during the reporting period?  
(please tick the appropriate box)

☐ Yes – please complete:

- section C;
- section D if required; and
- sign the declaration in Section F.

☒ No – please complete:

- section C;
- section D if required;
- section E; and
- sign the declaration at Section F.

### Section C – Statement of Actual Production

Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.

Prescribed Premises Category	Actual Production Quantity
Category 5 Processing or beneficiation of metallic or non- metallic ore (13,500,000 tonnes per year)	Total Ore Treated/Milled - 9,620,131 tonnes
Category 54 Sewage facility (510 m <sup>3</sup> per day)	294 m <sup>3</sup> per day
Category 57 Used Tyre Storage (120 tyres)	Average 100 tyres stored at one time
Category 64 Class II putrescible landfill (2,200 tonnes per year)	2,079 tonnes
Category 73 Bulk storage of chemicals (13,500 m <sup>3</sup> in aggregate)	5953 m <sup>3</sup> in aggregate

### Section D – Statement of Actual Part 2 Waste Discharge Quantity

Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.

Prescribed Premises Category	Actual Part 2 Waste Discharge Quantity
Category 5 Processing or beneficiation of metallic or non-metallic ore	Tailings to TSF – 9,412,958 tonnes

### Section E – Details of Non-Compliance with Licence Condition

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:	17	Date(s) of non-compliance:	12 Jan, 20 Apr, 27 Jul and 29 Oct 2021
---------------	----	----------------------------	--

Details of non-compliance:

Condition 17 requires groundwater monitoring as per Table 6 specifications, and investigate results that do not meet the specified limits.

During the reporting period, groundwater quality monitoring data was not obtained for 8 monitoring bores, as they were inaccessible. Specifically, BHP NiW was unable to obtain samples from KMB05-25, KMB05-50, KMB08-08, KMB11-07, KMB12-22, KMB13-16, KMB13-56 and KMB13-67 as scheduled under condition 17.

What was the actual (or suspected) environmental impact of the non-compliance?

**NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No environmental impact is anticipated due to the missing groundwater data as there is >85% of data collected and analysed for groundwater resources in the vicinity of the TSF. There is adequate depth to water measurements to provide an understanding of water level fluctuation throughout the year, in particular artesian and sub-artesian conditions. In terms of water quality, there is a comprehensive network of data points across the TSF that provides an indication of range and response of analytes – it is felt that the missing water quality data would fall within the same range as the other sampled points. It is unlikely that the missing data has any measurable or noticeable environmental impact. Efforts are being made to address these missing data points.


Cause (or suspected cause) of non-compliance:

BHP NiW was unable to obtain monitoring results due to these 9 bores being inaccessible. Specifically:

- KMB05-25 and KMB05-50 samples were damaged at the time and could not be sampled. They have been subsequently repaired.
- KMB08-08 vehicle access is blocked and could not be sampled by vehicle mounted pump.
- KMB11-07 and KMB12-22 bore caps have rusted and seized and could not be opened at the time of sampling.
- KMB13-16, KMB13-56 and KMB13-67 bores were inaccessible due to poor ground conditions.

## Department of Water and Environmental Regulation

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:	
<p>Nickel West will improve access to the affected bores as necessary to allow for monitoring under all ground conditions. At present:</p> <ul style="list-style-type: none"> <li>• KMB05-25 and KMB05-50 have been repaired.</li> <li>• KMB11-07 and KMB12-22 have a maintenance order for their caps to be replaced.</li> <li>• KMB13-16, KMB13-56 and KMB13-67 bores have a maintenance work order being implemented to improve ground conditions</li> </ul> <p>BHP NiW is working to ensure all impacted bores are accessible so records can be taken in compliance with condition 17 as soon as practicable.</p>	
Was this non-compliance previously reported to DWER?	
<input checked="" type="checkbox"/> No or <input type="checkbox"/> Yes, and	
<input type="checkbox"/> Reported to DWER verbally	Date:    /    /
<input type="checkbox"/> Reported to DWER in writing	

Section F – Declaration			
I/We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular <sup>1</sup> . I/We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.			
Signature <sup>2</sup> :		Signature:	
Name: (printed)		Name: (printed)	
Position:		Position:	
Date:		1 March 2022	Date:
Seal (if signing under seal):			

<sup>1</sup> It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

<sup>2</sup> AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.