Nickel West Leinster Operations

(Leinster Township)

Drinking Water Quality Report

July to September 2025

Contents

1. Water Provider Information

Water provider contact details	
Name of Company	BHP Nickel West Pty Ltd
Company Address	Level 43 125 St Georges Tce, Perth WA 6000
DoH Liaison Officer	Giovanna De Sousa
DoH Liaison Officer Email	Giovanna.desousa@bhp.com
DoH Liaison Contact #	0466847141

1.1 System Information

BHP Nickel West Leinster Nickel Operations is located 370 km north of Kalgoorlie. The Leinster Nickel Operations cover large mineral tenement landholdings incorporating several Nickel deposits and facilities including Leinster township (residential area, commercial facilities and SPQ accommodation village). Previously the average population on any given day at this location was 1,000 people but since moving into a temporary suspension, the average population is 600 people.

1.2 Drinking Water Supply System

Drinking water for the township of Leinster is sourced from the 11 mile bore field that sits 6 km equidistant from both locations. The raw water from this bore field has historically raised levels of salinity and nitrates.

Water is stored at the 11-mile water transfer station (390 kilolitres) and is gas chlorinated prior to being pumped to storage facilities located at town and the mine site.

The town reticulation network includes a 3 million litre buffer tank which provides holding capacity and distribution head pressure. There are two reverse osmosis (RO) units located at the dry mess facility and the town medical centre to deliver higher quality water.

Drinking water supplied by BHP complies with the health-related criteria, as outlined in version 3.7 of the Australian Drinking Water Guidelines (ADWG).

1.3 Number of Drinking Water Sampling Points

Table 1 below provides the number of drinking water sample points maintained. Source water sample points are included in the monitoring program to provide data relating to changes in chemistry and microbiology of pre-treatment water. As these points are not indicative of the quality of drinking water provided for consumption, only consumer or distribution sample point information is collated in this quarterly report.

Table 1: Drinking Water Sampling Points		
Region	**Consumer / Distribution Points**	**Source Water Points (11 mile)**
Leinster Township	7	1

2. Performance Summary

Table 2 below provides the number of microbiological water samples completed throughout quarter one. The required number assessed, number within compliance and any variance within the sampling quota.

Table 2: Drinking Water Sampling Performance Summary			
Microbiological Quality[1]	**No. assessed**	**No. compliant**	**Variance**
Thermotolerant coliforms / E. coli	54	54	0
Amoeba (Thermophilic Naegleria)	54	54	0
Chemical Quality	**No. assessed**	**No. compliant**	**Variance**
Chemical - Health	75	57	**18**
Chemical - Aesthetic	87	74	**13**
Radiological	N/A	N/A	N/A

[1]*Microbiological results from location SP2 11 Mil transfer station were not included in the total tally as this is considered a source supply point.*

3. Microbial Performance

Microbiological verification sampling is completed routinely at identified drinking water sample points which are chosen to be representative of distributed water. The aim of verification sampling is to confirm the water quality supplied to Leinster Town is safe and aesthetically acceptable. To ensure confidence in the reported results, all microbiological analyses are undertaken by a NATA accredited laboratory.

Microbiological results are reported by exception, and the Department of Health Western Australia (DoH) is notified of the exception as required by the specific alert level notification requirements listed in the DoH Binding Protocol.

Table 3 below provides a summary of microbiological compliance, including samples that require DoH notification and remedial actions.

Table 3: **Microbiological - Compliance**						
Region/ Scheme/Zone	**Date**	**Microbiological Characteristic**	**Alert Level**	**Remedial Actions**	**Date DOH notified**	**Close out date**
There were no microbiological exceptions in Q3 2025.						

4. Chemical - Health Related Performance

Water chemistry samples are completed routinely at locations and frequencies specified in the Site Water Quality Verification Monitoring Program developed using a risk-based approach following completion of the site-specific drinking water quality risk assessment. The aim of verification sampling is to ensure that the water quality delivered to Leinster Town is of acceptable quality. Verification samples are analysed by a NATA accredited laboratory with the exception of free chlorine readings which are undertaken by technicians on-site using handheld instruments.

Chemistry results that have the potential to affect human health and have health related guidelines in Table 10.6 of the Australian Drinking Water Guidelines (ADWG) 2011 (v3.8) are reported by exception to the West Australian Department of Health (DoH).

Table 4 depicts health related chemical performance for July to September 2025.

Table 4: Leinster Township Distribution Water Chemical Health Performance						
Health Characteristic	**Units**	**ADWG Guideline**	**Maximum Recorded Value**	**No of Analyses**	**No of Analyses Complying**	**Variance**
Total Trihalomethanes	mg/L	0.25	0.005	1	1	0
Bromodichloromethane	mg/L	0.25	<0.001	1	1	0
Bromoform	mg/L	0.25	0.005	1	1	0
Chloroform	mg/L	0.25	<0.001	1	1	0
Dibromochloromethane	mg/L	0.25	<0.001	1	1	0
Free Chlorine	mg/L	51	4	24	24	0
Nitrate (as NO3)	mg/L	50	78	46	28	18
Total Trihalomethanes	mg/L	0.25	0.005	1	1	0

[1] As total chlorine is not tested, the free chlorine result is measured against the ADWG health-related guideline value for total chlorine within Table 4.

4.1 Chemical - Health Related - Exception Notification

Table 5 below provides a summary of chemical health compliance, including samples that require DoH notification and remedial actions. Due to the ongoing detections of Nitrate above the ADWG Health guidelines for the Leinster Township Water Distribution System an exemption from the Department of Health was granted commencing in July 2025.

Table 5: Leinster Township Distribution Water Chemical Health Compliance							
Region/ Scheme/Zone	**Date**	**Chemical Characteristic**	**Result (mg/L)**	**Alert Level**	**Remedial Actions**	**Date DOH notified**	**Close out date**
Barcode: SP 16 School Drinking Fountain	4/09/25	Nitrate (as NO3)	73	50 mg/L	A community communication plan is in place for residents, additional to provision of RO treated water available for the public, which can be sourced at the township medical centre.	N/A	Ongoing
	21/08/25		76				
Barcode: SP 4 Town Potable Tank	25/09/25		76				
	23/09/25		74.4				
	11/09/25		76				
	4/09/25		70				
	28/08/25		77				
	21/08/25		74				
	7/08/25		74				
	7/08/25		77				
	31/07/25		77				
	17/07/25		78				
	15/07/25		77.5				
	10/07/25		76				
	3/07/25		77				
Barcode: SP 2 11 Mile Transfer Station Tap	23/09/25		76.6				
	7/08/25		75.3				
	15/07/25		72.6				

Additional sampling is conducted on a monthly frequency for Nitrate at the Leinster Medical Centre due to the ongoing detections of Nitrate above the ADWG Health guidelines for the Leinster Township Water Distribution System, which is detailed in Table 6.

Table 6: Leinster Medical Centre RO (SP6) Monthly Nitrate Analysis	
Sample Date	**Nitrate Value (mg/L)**
25/09/2025	4
23/09/2025	3.76
11/09/2025	7.6
4/09/2025	8.7
28/08/2025	17
21/08/2025	26
7/08/2025	33
7/08/2025	25.5
31/07/2025	29
17/07/2025	21
10/07/2025	18
3/07/2025	16
19/06/2025	15
5/06/2025	9.2
15/05/2025	7.2
1/05/2025	6
10/04/2025	5.1
3/04/2025	4.7
30/01/2025	4.8
5/12/2024	3.2
21/11/2024	2.9
10/10/2024	3.1

5. Chemical - Aesthetic Performance

This section includes water chemistry results that do not have health guideline values but do have aesthetic guideline values in the ADWG (2011). Exceeding an aesthetic guideline value does not pose a health risk (provided no health guideline is exceeded at the same time) but can affect the palatability and how pleasing the water appears. Individual exceedances are generally not reportable to the DoH, with exception of turbidity.

Table 7 depicts aesthetic related chemical performance for July to September 2025.

Table 7: Leinster Township Distribution Water Chemical Aesthetic Performance						
Aesthetic Characteristic	**Units**	**ADWG Guideline**	**Maximum Recorded Value**	**No of Analyses**	**No of Analyses Complying**	**Variance**
Electrical Conductivity1	µs/cm	968	1259	8	8	0
Hardness as CaCO3	mg/L	200	266	1	0	1
pH	pH units	6.5 - 8.5	6.98 - 10	28	27	1
Total Dissolved Solids	mg/L	600	871.7	25	14	11
Turbidity	NTU	5	0.82	25	25	0

5.1 Chemical - Aesthetic Related – Incident Specific Information

Australian Drinking Water Guidelines state based on taste total dissolved solids should ideally be less than 600 mg/L to be regarded good quality for drinking. The Australian Drinking Water Guideline also state between 600 – 900mg/L is regarded as fair quality drinking water and acceptable. Highest record value for TDS in this quarter was recorded at 871.7 mg/L, within "fair quality water" as defined in ADWG.

The singular elevated pH result was the only laboratory pH reading for the quarter and all other field readings recorded were within the recommended guidelines.

The Australian Drinking Water Guideline also state that Hardness values between 60 – 200 mg/L $CaCO_3$ are regarded as good quality drinking water and acceptable. The maximum Hardness value was recorded as 266 mg/L $CaCO_3$ only just above the guideline.

6. Radiological Performance

Radiological parameters include gross alpha and gross beta levels which measure the overall radioactivity of the water. Verification samples are analysed by a NATA accredited laboratory to ensure accuracy of results.

Radiological results that are above the ADWG (2011) recommended screening levels (0.5 Bq/L for either gross alpha or gross beta) are investigated to determine the nature of the radioactivity. If further radiological analysis reveals a radiation dose exceedance, this is reported to the West Australian Department of Health (DoH). The department is notified of the exception within the required timeframe and using the communication mode specified in the DoH Binding Protocol.

Table 8 depicts the radiological performance for the quarter. Next radiological sampling is to be completed in June 2026.

Table 8: Leinster Township Radiological Performance

Parameter	Units	ADWG Guideline	Maximum Recorded Value	No of Analyses	No of Analyses Complying	Variance
Gross Alpha	Bq/L	0.5	N/A	N/A	N/A	N/A
Gross Beta – 40K	Bq/L	0.5	N/A	N/A	N/A	N/A

7. Planned Sample Summary

Planned drinking water quality monitoring completeness during July to September 2025 is summarised in Table 9 below.

Table 9: Leinster Township Distribution Water Planned Sample Summary

Parameter	Planned Analyses	Taken	% Compliance to Plan
Microbial	45	108	>100%
Chemical	130	162	>100%
Radiological[1]	0	0	N/A

[1] Radiological sampling is undertaken on a biannual basis with the next sampling to be conducted in June 2026

8. Planned Sample Exceptions

There were no planned sample exceptions in Q3 2025.

9. General Notes/Other News

A Water Services Licence was granted by the Economic Regulation Authority (ERA) for the town of Leinster in September 2020 (commenced 16/9/2020 and expires 15/9/2045).

The verification monitoring program for Leinster Town is planned for revision and update in Q4 2025 with forecasted role out in Q1 2026.