



Licence number	L6168/1991/11
Licence holder	BHP Iron Ore Pty Ltd
ACN	008 700 981
Registered business address	125 St Georges Terrace PERTH WA 6000
DWER file number	DER2013/001190-1 INS-0001284
Duration	17/11/2025 to 16/11/2035
Date of issue	12/11/2015
Date of amendment	09/06/2024
Premises details	Yandi (Marillana Creek) Iron Ore Mine Mining Tenements M270SA, G47/12, G47/13, G47/14, G47/15, G47/16, G47/17, G47/18, G47/19, NEWMAN WA 6753

As defined by the coordinates in Schedule 2

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed production / design capacity
Category 5 – Processing or beneficiation of metallic or non-metallic ore	87,000,000 tonnes per annual period
Category 6 – Mine dewatering	15,000,000 tonnes per annual period
Category 12 – Screening, etc. of material	300,000 tonnes per annual period
Category 13 – Crushing of building material	33,000 tonnes per annual period
Category 54 – Sewage facility	773 cubic metres per day
Category 62 – Solid waste depot	48,000 tonnes per annual period
Category 64 – Class II putrescible landfill site	40,000 tonnes per annual period
Category 73 – Bulk storage of chemicals etc.	4000 cubic metres in aggregate

This licence is granted to the licence holder, subject to the attached conditions, on 09 June 2026, by:

**MANAGER, RESOURCE INDUSTRIES
INDUSTRY REGULATION (STATE-WIDE DELIVERY)**

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

[L6168/1991/11](#)

Licence history

Date	Reference number	Summary of changes
15/11/2000	L6168/1991/3	Licence renewal
13/11/2001	L6168/1991/4	Licence renewal
15/11/2002	L6168/1991/5	Licence renewal
17/11/2003	L6168/1991/6	Licence renewal
15/11/2004	L6168/1991/7	Licence renewal
15/11/2005	L6168/1991/8	Licence renewal
12/11/2009	L6168/1991/9	Licence renewal
15/11/2012	L6168/1991/10	Licence renewal
12/11/2015	L6168/1991/11	Licence renewal
22/09/2016	L6168/1991/11	Licence amendment to update premises address, include inert waste disposal location and other minor amendments, including removal of conditions that are not valid, enforceable and/or risk based
05/12/2018	L6168/1991/11	Amendment notice 1 issued to include category 12 and 52, construct a new inert landfill, increase the category 64 disposal limit, increase the category 73 storage volume and update the premises map.
17/06/2022	L6168/1991/11	Licence amendment to consolidate amendment notice 1, remove tenements, remove discharge point MCDMDEW031, amend waste management conditions and modify landfarm conditions.
27/06/2023	L6168/1991/11	Licence amendment for the following landfill updates only: <ul style="list-style-type: none"> • Allowing for the construction and operation of a Category 62 solid waste depot facility (consisting of two areas approximately 200m apart) with a capacity of 15,000 tonnes per annual period; • Allowing for the construction and operation of three new inert landfill facilities at Yandi Camp, increasing the Category 64 disposal limit by 10,000 tonnes per annum up to 31,800 tonnes per annual period; and • Adding the locations of the above new facilities to the map in Schedule 1 of the Licence.
23/10/2024	L6168/1991/11	Licence amendment for the inclusion of an additional discharge point to enable the temporary provision of surplus groundwater for a short-term hydrogeological trial.
09/06/2024	L6168/1991/11	Licence amendment for the following: <ul style="list-style-type: none"> • Extension of the reinjection of groundwater to Minister North Aquifer trial under category 6 for three years;

[L6168/1991/11 \(amended: 09/06/2026\)](#)

Date	Reference number	Summary of changes
		<ul style="list-style-type: none"> • Increase in throughput of category 12 • Addition of category 13 to allow crushing of building material; • Removal of category 52 • Inclusion of macerator at Spinifex WWTP to allow for waste from across the site to be treated there; • Increase in throughput for category 62 and the inclusion of three new solid waste depot locations; • An increase in throughput for category 64 to allow for building waste disposal. Administrative updates to remove inert landfill locations which are not constructed or required.

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:

General Conditions

1. The Licence Holder must ensure the limits specified in Table 1 are not exceeded.

Table 1: Production or design capacity limits

Category	Category Description	Premises production or design capacity limit
5	Crushing and screening facilities	87,000,000 tonnes per annual period.
6	Dewatering infrastructure	15,000,000 tonnes per annual period.
12	Crushing and screening facilities	300,000 tonnes per annual period.
13	Crushing of building waste	33,000 tonnes per annual period
73	Fuel storage and handling areas	4000 cubic metres in aggregate.

Infrastructure and equipment

Premises operation

2. The Licence Holder shall only accept waste on to the landfill and WWTPs if:
 - (a) it is of a type listed in Table 2;
 - (b) the quantity accepted is below any quantity limit listed in Table 2; and
 - (c) it meets any specification listed in Table 2.

Table 2: Waste acceptance

Waste type	Quantity limit	Specification ¹
Inert Waste Type 1	Combined total of up to 40,000 tonnes per annual period for Category 64 activities	None specified Includes inert concrete and pipework
Inert Waste Type 2		Tyres, conveyor belts and plastic only
Putrescible Waste	Combined total of up to 48,000 tonnes per annual period for Category 62 activities	None specified
Sewage	1,028 m ³ /day ²	Accepted through sewer inflow(s) Accepted from non-sewered facilities

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Note 2: Quantity limit measured as volume of treated wastewater discharged to designated irrigation areas.

3. The Licence Holder shall ensure that where waste does not meet the waste acceptance criteria set out in condition 2 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

4. The Licence Holder shall ensure that wastes accepted onto the landfill and WWTP are only subjected to the process(es) set out in Table 3 and in accordance with any process limits described in that Table.

Table 3: Waste processing

Waste type	Process(es)	Process limits ^{1, 2}
Inert Waste Type 1	Receipt, handling and disposal of waste by landfilling	<p><u>All waste types</u></p> <ul style="list-style-type: none"> Must only take place within the areas shown in Schedule 1. No waste shall be temporarily stored or landfilled within 35 m 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. <p><u>Putrescible Waste</u></p> <p>Must only be placed in the Putrescible Landfill sites shown in Schedule 1.</p> <p><u>Inert Waste Type 1 (concrete waste)</u></p> <ul style="list-style-type: none"> Inert concrete waste (e.g. crushed concrete, rail sleepers, etc) shall only be landfilled within licenced landfill facilities, pits or overburden storage areas located within the prescribed premises boundary shown in Schedule 1. No waste may be deposited into pit voids below the natural water table level unless investigations required under conditions 5 and 6 have been completed and demonstrate that disposal of concrete waste at those elevations is environmentally acceptable. All waste deposited into pits and overburden storage areas must be recorded; as a minimum the location and depth of deposition should be recorded. <p><u>Inert Waste Type 2 (tyres)</u></p> <ul style="list-style-type: none"> To be stored in piles of up to 100 units with a 6 m separation distance between piles. Tyres/rubber must only be landfilled in overburden storage areas or landfills located within the prescribed premises boundary shown in Schedule 1.
Inert Waste Type 2		
Putrescible Waste		
Sewage	Biological, physical and chemical treatment	None specified
Sewage sludge	Drying and storage	None specified
Hydrocarbon contaminated waste	Bioremediation	Contaminated soil is only to be remediated within the Landfarm facilities located within the prescribed premises boundary shown on the Map in Schedule 1, Maps: Premises map.

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*.

5. The Licence Holder must undertake a study into pH-dependent leaching (USEPA 1313)(LEAF method) of Yandi waste rock and the short-term leaching behaviour of crushed concrete waste under low oxygen condition and saline conditions. The assessment must consider all plausible environmental risk scenarios, including current and potential future states.
6. The Licence Holder must submit a report within 30 calendar days of the results acquired from the study in condition 6, to the CEO, prior to the disposal of any crushed concrete waste into pit voids below the water table.
7. The Licence Holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 4 and that sufficient stockpiles of cover are maintained on site at all times.

Table 4: Cover requirements¹

Waste Type	Material	Depth	Timescales
Inert Waste Type 1	No cover required		
Inert Waste Type 2	Type 1 Inert waste, Clean Fill, Uncontaminated Fill or soil	100 mm	As soon as practicable after deposit Plastic waste with the potential to become windblown shall be covered as soon as practicable after deposit
Putrescible Waste		150 mm	As soon as practicable after deposit and not later than weekly
		1,000 mm	Within 3 months of achieving final waste contours

Note 1: Additional requirements for the covering of tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

8. The Licence Holder shall ensure that wind-blown waste is contained within the boundary of the Premises and that wind-blown waste is returned to the tipping area on at least a monthly basis.
9. The Licence Holder shall ensure that the waste material specified in Table 5 is only stored and/or treated within the vessels or compounds provided with the infrastructure detailed in Table 5.

Table 5: Containment infrastructure

Vessel or compound	Material	Infrastructure requirements
Spinifex Camp WWTP anaerobic, facultative and maturation ponds	Effluent from the Spinifex Camp and other ablation facilities	<ul style="list-style-type: none"> • HDPE lined to achieve a permeability of 1×10^{-9} m/s or less • Maintain vertical freeboard of 400 mm

		<ul style="list-style-type: none"> Sewage from other ablution facilities to be passed through a macerator before entering the WWTP
OHP3 Oily Wastewater Ponds	Treated oily water from the OHP3 oily water separator	<ul style="list-style-type: none"> HDPE lined to achieve a permeability of 1×10^{-9} m/s or less Maintain vertical freeboard of 400 mm
OHP3 Sewage Treatment Facility Evaporation Ponds	Treated wastewater from the OHP3 Wastewater Treatment facility	<ul style="list-style-type: none"> HDPE lined to achieve a permeability of 1×10^{-9} m/s or less Maintain vertical freeboard of 400 mm
Landfarms	Hydrocarbon contaminated soils	<ul style="list-style-type: none"> Lined to achieve a permeability of 1×10^{-9} m/s or less Any potentially contaminated runoff from the treatment cells is contained

10. The Licence Holder must construct and/or install the infrastructure listed in Table 6, in accordance with:

- the corresponding design and construction requirement / installation requirement; and
- at the corresponding infrastructure location; and
- within the corresponding timeframe,

As set out in Table 6.

Table 6: Design and construction/installation requirements

Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
Putrescible landfills (Putrescible landfills 1, 3 and 4)	Three new putrescible landfills: <ul style="list-style-type: none"> Each landfill will be constructed with a series of trenches (exact number will depend on available space at each location) with the following maximum dimensions: length of 200m, width 25m, depth 2.5m deep and volume $12,500 \text{ m}^3$; Windrows will be maintained along the landfill boundaries to direct stormwater away from the trenches; Perimeter fencing maintained around active landfill trenches; and To extend landfill life additional cells may be installed on top of the original cells once they have reached capacity. 	Schedule 1, Maps: Premises map
Bioremediation landfarms	Landfarm facilities will be constructed with the following requirements: <ul style="list-style-type: none"> Synthetic Lined to achieve a permeability of 1×10^{-9} m/s; 	Schedule 1, Maps: Premises map

Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
	<ul style="list-style-type: none"> • Stormwater run-off diverted so as not to flow onto the treatment facility; • designed so that any potentially contaminated runoff from the treatment cells is contained; • Within the prescribed premises • Not to be constructed within 50m of surface water courses; • Adequately fenced or positioned to prevent public access; and • Appropriate signage warning of contamination placed. 	
Three solid waste depots (OHP1 Screenhouse, OHP1 Crib Rooms and OHP2)	<ul style="list-style-type: none"> • Three areas: <ul style="list-style-type: none"> ○ OHP1 Screenhouse; ○ OHP1 Eastern Crib; and ○ OHP2 • Existing bund / windrow which will minimise water entering and exiting the facility; • Maximum capacity of 48,000 tonnes per annual period. 	Schedule 1, Maps: Premises map
Concrete Crushing plant / Excavator fitted with concrete crushing jaws	<ul style="list-style-type: none"> • Operate a 50,000 tpa concrete crushing plant or an excavator fitted with concrete crushing jaws to process up to 33,000 tonnes of concrete per annual period. • Facility to located within or adjacent to the solid waste depots. • Water carts to available for dust suppression during crushing events. 	Schedule 1, Maps: Solid Waste Depot
Macerator and aerator with a maximum flow rate of 24 m ³ /hour to be installed at the Spinifex WWTP for receiving waste from other ablution facilities.	Installation of a: <ul style="list-style-type: none"> • Grundfos SEG.50.26.EX.2.50B Macerator Pump (Duty/Standby) internally mounted inside the existing 50kL tank; or • Tsurumi TRN_50TRN43.7 Submersible Aerator, internally mounted. 	Schedule 1, Maps: Spinifex WWTP

11. The Licence Holder shall submit a compliance document to the CEO, following the construction and/or installation of an item of infrastructure or equipment required by Condition 10, Table 6. The compliance document/s shall:

- (a) be certified by a suitably qualified engineer and certify that the works were constructed in accordance with the construction requirements specified in Condition 10, Table 6;

- (b) include as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 10, Table 6; and
 - (c) be signed by a person authorised to represent the Licence Holder and contain the printed name and position of that person within the company.
12. The Licence Holder shall operate the infrastructure specified in Condition 10, Table 6 in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 11.

Emissions and discharges

Point source emissions to surface water and groundwater

13. The Licence Holder shall ensure that where waste is emitted to surface water from the emission points in Table 7 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 7: Emission points to surface water

Emission point reference and location	Description	Source including abatement
MCDMDEW040 (As depicted in the Premises Map under Schedule 1, Figure 1)	Discharge of excess mine dewatering water to Marillana Creek	Water abstracted to facilitate mining below the water table
MCDMDEW041 (As depicted in the Premises Map under Schedule 1, Figure 1)	Contingency discharge point to Marillana Creek	Discharge of water: <ul style="list-style-type: none"> • During and post wet weather events; or • When MCDMDEW040 is offline for system maintenance • When abstracted water from the western pits exceeds the volume required for dust suppression activities
Yandi Transfer Tanks to reinjection bores HMN0003P, HMN0013P, HMN0033P, HMN0042P, HMN0043P, HMN0044P and HMN0045P (As depicted under Schedule 1, Figure 2)	Temporary discharge point to Ministers North Aquifer as part of the hydrogeological trial stage 2 (for a period up to three years)	Discharge of water to support groundwater supplementation at Ministers North Aquifer

14. The Licence Holder shall implement the Yandicoogina Gorge Supplementation Scheme: Trial Stage 2: Trigger Action Response Plan (TARP).
15. The Licence Holder must ensure that emissions from the discharge points listed in

Table 8 do not exceed the parameter concentration limits specified in Table 8 when monitored in accordance with condition 22 and 26.

Table 8: Emission and Discharge limits

Discharge points	Parameter	Limit	Unit
MCDMDEW040	Perfluorooctane sulfonic acid (PFOS)	0.0091	µg/L
MCDMDEW041 Yandi Transfer Tanks (refer to Table 7 for discharge description and location details)	Perfluorooctanoic acid (PFOA)	19	

16. If PFAS compounds monitored in accordance with Condition 22 and 26 are found to exceed the limits specified in Table 8, the Licence Holder shall carry-out additional monitoring of the source water and prepare a detailed risk assessment in accordance with the PFAS NEMP to determine related risks to the receiving environment. A report outlining the outcomes of the risk assessment shall be provided to the CEO within 60 days of the related analytical results being issued by the laboratory.

Emissions to land

17. The Licence Holder shall ensure that where waste is emitted to land from the emission points in Table 9 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 9: Emissions to land

Emission point reference and location	Emission point reference on Map of emission points	Description	Source including abatement
MCSWSTP004 (As depicted in the Premises Map under Schedule 1, Figure 1)	Spinifex Camp WWTP irrigation area	6.9 hectare irrigation area	Treated wastewater from Spinifex Camp WWTP (420 m ³ /day)
OHP3 Oily Waste Water Ponds (As depicted in the Premises Map under Schedule 1, Figure 1)	OHP3 Oily Waste Water Ponds	Discharge of treated wastewater	Treated wastewater from the OHP3 Oily Water Treatment Facility

Monitoring

General monitoring

18. The Licence Holder shall ensure that:
- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
 - all surface water sampling is conducted in accordance with AS/NZS 5667.6 as relevant;
 - laboratory sample must be analysed using the appropriate limit of reporting to allow comparison with relevant assessment levels for water quality; and
 - 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.
19. The Licence Holder shall ensure that:
- monthly monitoring is undertaken at least 15 days apart; and
 - quarterly monitoring is undertaken at least 45 days apart.
20. The Licence Holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.
21. The Licence Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

Monitoring of point source emissions to surface water

22. The Licence Holder shall undertake the monitoring in Table 10 according to the specifications in that table and record and investigate results.

Table 10: Monitoring of point source emissions to surface water

Emission point reference	Monitoring point location	Parameter	Units	Averaging Period	Frequency	Method
MCDMDEW040 MCDMDEW041 (As depicted in the Premises Map under Schedule 1, Figure 1)	Flow meters to discharge point	Volumetric flow rate (cumulative)	m ³ /day	Quarterly	Continuous	As per condition 18
	Discharge points	pH ¹	-			
		Electrical Conductivity	(µS/cm)			
		Total Dissolved Solids	mg/L or µg/L			
		Total Suspended Solids				
TRH C ₆ -C ₁₀						

Emission point reference	Monitoring point location	Parameter	Units	Averaging Period	Frequency	Method
		TRH C ₁₀ -C ₁₆				
		TRH C ₁₆ – C ₃₄				
		TRH C ₃₄ – C ₄₀				
		Benzene, toluene, ethylbenzene and xylenes (BTEX)				
		Total Polycyclic Aromatic Hydrocarbons (PAH)				
		Sodium				
		Potassium				
		Calcium				
		Magnesium				
		Chloride				
		Carbonate				
		Bicarbonate				
		Sulfate				
		Nitrate				
		Aluminium				
		Boron				
		Iron				
		Copper				
		Zinc				
		Silver				
		Arsenic				
		Chromium				
		Cadmium				

Emission point reference	Monitoring point location	Parameter	Units	Averaging Period	Frequency	Method
		Mercury				
		Nickel				
		Selenium				
		Manganese				
		PFOS				
		PFOA				
		PFAS compounds, as listed in Schedule 3.				

Note 1: In-field non-NATA accredited analysis permitted.

Monitoring of emissions to land

23. The Licence Holder shall undertake the monitoring in Table 11 according to the specifications in that table.

Table 11: Monitoring of emissions to land

Emission point reference	Monitoring point location	Parameter	Limit	Units	Averaging period	Frequency
MCSWSTP004 (As depicted in the Premises Map under Schedule 1, Figure 1)	Spinifex Camp WWTP maturation pond	Volumetric flow rate	-	m ³ /day	Quarterly	Continuous
		pH ¹	-	-	Spot sample	Quarterly
		Biochemical Oxygen Demand	-	mg/L		
		Total Suspended Solids	-	mg/L		
		Residual Chlorine ¹	-	mg/L		
		Total Nitrogen	-	mg/L		
		Total Phosphorus	-	mg/L		
		<i>E.coli</i>	-	MPN or cfu/100mL where MPN is		

Emission point reference	Monitoring point location	Parameter	Limit	Units	Averaging period	Frequency
				not available		
OHP3 Oily Wastewater Ponds (As depicted in the Premises Map under Schedule 1, Figure 1)	Treated wastewater pond prior to discharge	Total Recoverable Hydrocarbons	15	mg/L	Spot sample	Prior to discharge

Note 1: In-field non-NATA accredited analysis permitted.

Monitoring of inputs and outputs

24. The Licence Holder shall undertake the monitoring in Table 12 according to the specifications in that table.

Table 12: Monitoring of inputs and outputs

Input/Output	Parameter	Units	Averaging period	Frequency
Waste inputs	Inert Waste Type 1 and Inert Waste Type 2	Tonnes	N/A	Annual records of total waste arriving at the landfill facility

Ambient environmental quality monitoring

25. The Licence Holder shall undertake the monitoring in Table 13 according to the specifications in that table and record and investigate results.

Table 13: Monitoring of ambient surface water quality

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Marillana Creek surface water monitoring sites YNSWPC001 YNSWPC002 (As depicted in the Premises Map under Schedule 1, Figure 1).	pH ¹	-	Spot sample	Following rain events
	Electrical Conductivity	(µS/cm)		
	Total Dissolved Solids	mg/L		
	Total Suspended Solids	mg/L		
	Total Recoverable Hydrocarbons	mg/L		
	Sodium	mg/L		
	Potassium	mg/L		
	Calcium	mg/L		

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
	Magnesium	mg/L		
	Chloride	mg/L		
	Carbonate	mg/L		
	Bicarbonate	mg/L		
	Sulfate	mg/L		
	Nitrate	mg/L		
	Aluminium	mg/L		
	Boron	mg/L		
	Iron	mg/L		
	Copper	mg/L		
	Zinc	mg/L		
	Silver	mg/L		
	Arsenic	mg/L		
	Chromium	mg/L		
	Cadmium	mg/L		
	Mercury	mg/L		
	Nickel	mg/L		
Selenium	mg/L			
Manganese	mg/L			

Note 1: In-field non-NATA accredited analysis permitted.

26. The Licence Holder shall undertake the monitoring in Table 14 according to the specifications in that table and record and investigate results.

Table 14: Monitoring of point source emissions to groundwater and ambient groundwater quality (Jugari Gorge Reinjection Trial)

Monitoring point reference as shown in 4: Trial monitoring bore locations	Parameter	Units	Averaging Period	Frequency	Method
<u>Adjacent</u>	Standing water	m (AHD)	-	Monthly	As per

Monitoring point reference as shown in 4: Trial monitoring bore locations	Parameter	Units	Averaging Period	Frequency	Method
Monitoring bores:	level ¹	and mbgl			condition 20
HMN0083M HMN0089M HMN0093M	pH ²	-			
<u>Yandicoogina Gorge Monitoring Bores</u> HMN0077M or HMN0078M HMN0080M or HMN0081M	Electrical Conductivity ²	(µS/cm)			
	Total Dissolved Solids	mg/L or µg/L			
	Total Suspended Solids				
	TRH C ₆ -C ₁₀				
	TRH C ₁₀ -C ₁₆				
	TRH C ₁₆ - C ₃₄				
	TRH C ₃₄ – C ₄₀				
Ministers North Aquifer Monitoring Bores	Benzene, toluene, ethylbenzene and xylenes (BTEX)				
HMN0013P HMN0017M HMN0018M HMN0024M HMN0041M or HMN0057M MN2623RM <u>Yandi Transfer Tanks</u> (refer to Table 7 for discharge description and location details).	Total Polycyclic Aromatic Hydrocarbons (PAH)		Spot sample	Monthly during first three months of a new injection bore being brought online. Quarterly thereafter.	
	Sodium				
	Potassium				
	Calcium				
	Magnesium				
	Chloride				
	Carbonate				
	Bicarbonate				
	Sulfate				
	Nitrate				
	Aluminium				
	Boron				
	Iron				

Monitoring point reference as shown in 4: Trial monitoring bore locations	Parameter	Units	Averaging Period	Frequency	Method
	Copper				
	Zinc				
	Silver				
	Arsenic				
	Chromium				
	Cadmium				
	Mercury				
	Nickel				
	Selenium				
	Manganese				
	PFOS				
	PFOA				
	PFAS compounds, as listed in Schedule 3				

Note 1: Monitoring of standing water levels does not apply to the Yandi Transfer tanks

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

Records and reporting

Records

- 27.** 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 27(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.
- 28.** 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 by 1 October after the end of the annual period an Annual Audit Compliance Report in the approved form.
- 29.** 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.
- 30.** 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 10 of this licence;
 - (c) monitoring programmes undertaken in accordance with conditions 22 to 26 of this licence; and
 - (d) complaints received under condition 29 of this licence.
- 31.** The books specified under condition 30 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

- 32.** The Licence Holder shall submit to the CEO an Annual Environmental Report by the 1 October each year. The report shall contain the information listed in Table 15 in the format or form specified in that table.

Table 15: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form ¹
-	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
Condition 1, Table 1 Condition 2, Table 2	Production or design capacity data and limit exceedances	None specified
Condition 2, Table 2	Waste acceptance	None specified
Condition 4, Table 3	Quantity of hydrocarbon contaminated waste placed in landfarms for remediation. Reporting required for monitoring purposes only – no limit in place.	None specified
Condition 13, Table 7	Cumulative volume discharged via each separate emission point	None specified
Condition 14	Summary of implementing the TARP.	None specified
Condition 15, Table 8	Summary of limit exceedances.	None specified
Condition 16	Summary of investigations and reports provided to the CEO	None specified
Condition 22, Table 10	Point source emissions to surface water monitoring results and a comparison of results against established trigger values. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances and a discussion of any trends identified	None specified
Condition 23, Table 12	Limit exceedances and emissions to land monitoring results and comparison of results against the manufacturers specifications	None specified
Condition 24, Table 12	Monitoring of inputs and outputs	None specified
Condition 25, Table 13	Ambient surface water quality monitoring results and a comparison of results against established trigger values. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances and a discussion of any trends identified	None specified

Condition or table (if relevant)	Parameter	Format or form ¹
Condition, 26 Table 15	Dewatering source water and ambient groundwater quality monitoring results for the Jugari Reinjection Trial and a comparison of results against relevant assessment levels and/or established trigger values. Details of investigations conducted, including outcomes, environmental impacts and remedial actions, in relation to trigger exceedances and a discussion of any trends identified.	None specified
Condition 28	Compliance	None specified
Condition 29	Complaints summary	None specified

33. The Licence Holder shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits.

34. The Licence Holder shall submit the information in Table 16 to the CEO according to the specifications in that table.

Table 16: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹
-	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

Note 1: Forms are in Schedule 3

Notification

35. The Licence Holder shall ensure that the parameters listed in Table 18 are notified to the CEO in accordance with the notification requirements of the table.

Table 17: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
Condition 1, Table 1 Condition 2, Table 2 Condition 15, Table 8 Condition 23, Table 11	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
Condition 21	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 4

Definitions

In this licence, the terms in Table 18 have the meanings defined.

Table 18: Definitions

Term	Definition
ACN	Australian Company Number.
Act	means the Environmental Protection Act 1986.
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	means the inclusive period from 1 July until 30 June 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 5667.6	means the Australian Standard AS/NZS 5667.6 Water Quality – Sampling – Guidance on sampling of rivers and streams
AS/NZS 5667.10	means the Australian Standard AS/NZS 5667.10 Water Quality – Sampling – Guidance on sampling of waste waters
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 of Environment Regulation.
CEO	for the purpose of correspondence means: Chief Executive Officer / Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 Telephone: (08) 6367 7000 or: info@dwer.wa.gov.au
Compliance Report	means a report in a format approved by the CEO as presented by the or as specified by the CEO from time to time and published on the Department's website.
controlled waste	has the definition in Environmental Protection (Controlled Waste) Regulations 2004.

Term	Definition
Department	means the department established under section 53 of the Public Sector Management Act and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986.
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	<i>Environmental Protection Act 1986 (WA)</i> .
freeboard	means the distance between the maximum water surface elevation and the top of retaining banks or structures at their lowest point.
HDPE	means high density polyethylene.
Inert Waste Type 1	has the meaning defined in Landfill definitions.
Inert Waste Type 2	has the meaning defined in Landfill definitions.
Landfill Definitions	means the document titled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer of the Department of Environment as amended from time to time.
licence	means this Licence numbered L6168/1991/11 and issued under the under section 57 of the EP Act by the CEO, subject to the specified conditions contained within.
licence holder	means the person or organisation who is the occupier of the premises, named as Licence Holder on page 1 of the Licence.
MPN	most probable number.
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.
normal operating conditions	means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring.
OHP	Ore Handling Plant
PAS NEMP	means <i>Heads of EPAs Australia and New Zealand (HEPA) 2020, 'PFAS National Environmental Management Plan Version 2.0', – January 2020, Department of Climate Change, Energy, the Environment and Water</i>

Term	Definition
premises	means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence.
prescribed premises	has the same meaning given to that term under the EP Act.
Putrescible	has the meaning defined in Landfill definitions.
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.
Relevant assessment levels	Means relevant screening risk assessment levels published in the following standards and/or guidelines: <ul style="list-style-type: none"> • “Assessment of Site Contamination NEPM” means the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i>, as amended from time to time; and/or • “Guideline: Assessment and management of contaminated sites” means the document titled <i>Assessment and management of contaminated sites, Contaminated sites guidelines</i>, as amended from time to time; and/or • PFAS NEMP.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
Schedule 3	means Schedule 3 of this Licence unless otherwise stated.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
TARP	means BHP’s <i>Jugari Short Term Trial Groundwater Supplementation Scheme – Trigger Action Response Plan (TARP)</i> , dated 21 October 2024.
TRH	means Total Recoverable Hydrocarbons
USEPA 1313	means the method published by the United States Environmental Protection Agency SW-846 Method 1313 - Liquid-Solid Partitioning as a Function of Extract pH Using a Parallel Batch Extraction Procedure.
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.
WWTP	means wastewater treatment plant.

END OF CONDITIONS

Schedule 1: Maps

Premises map

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

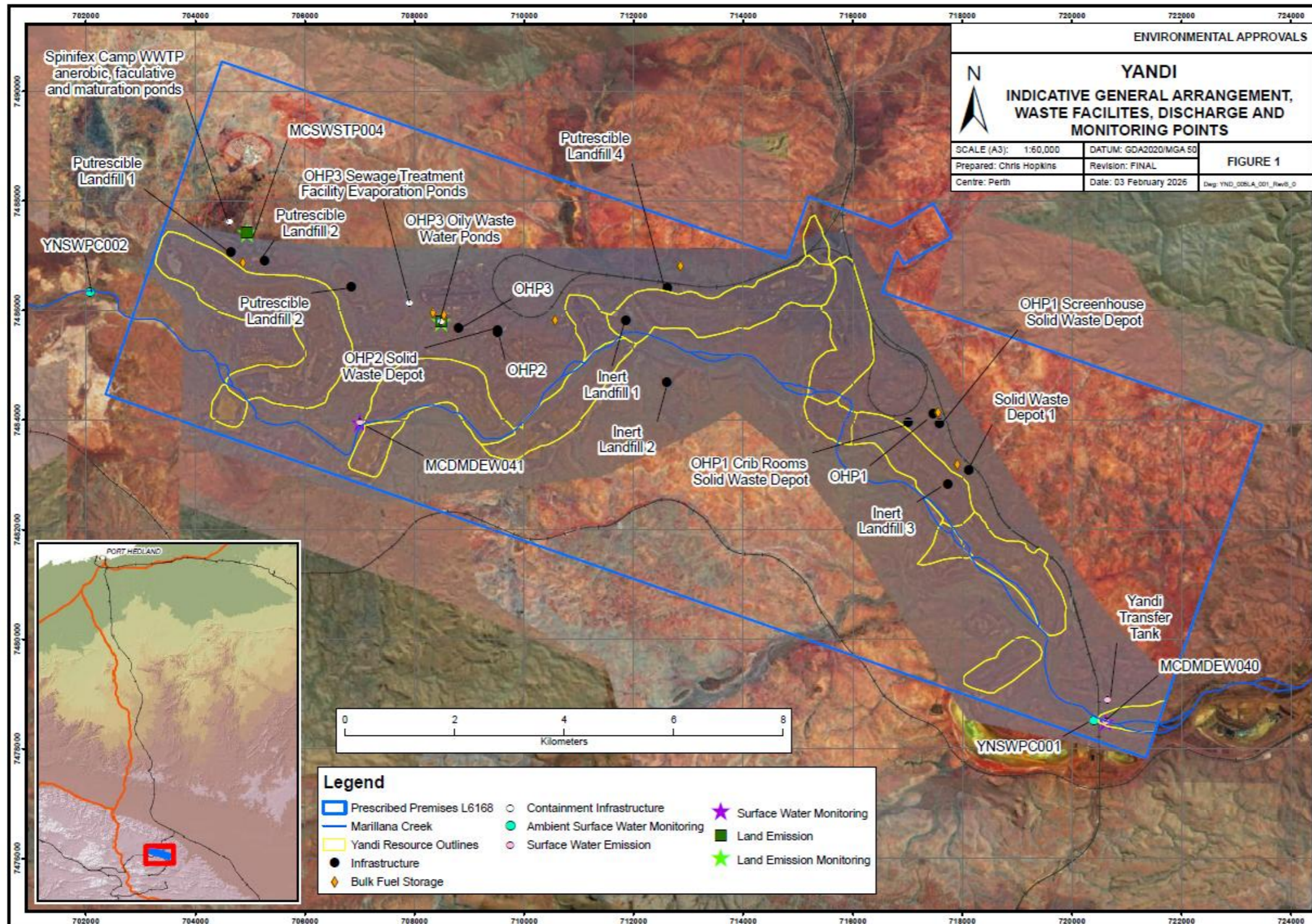


Figure 1: Map of the boundary of the prescribed premises and arrangement of major infrastructure

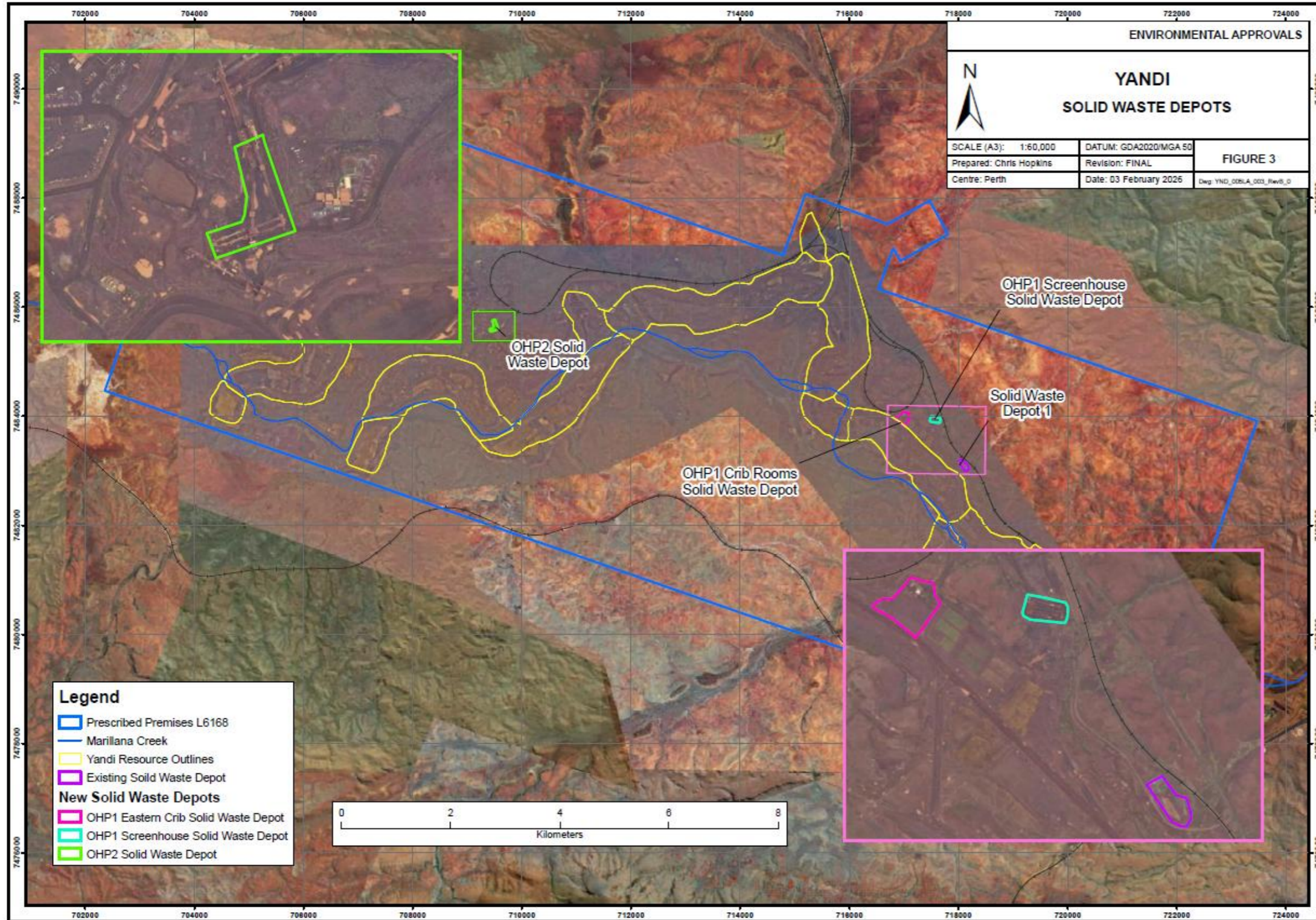


Figure 2: Solid Waste Depot Locations

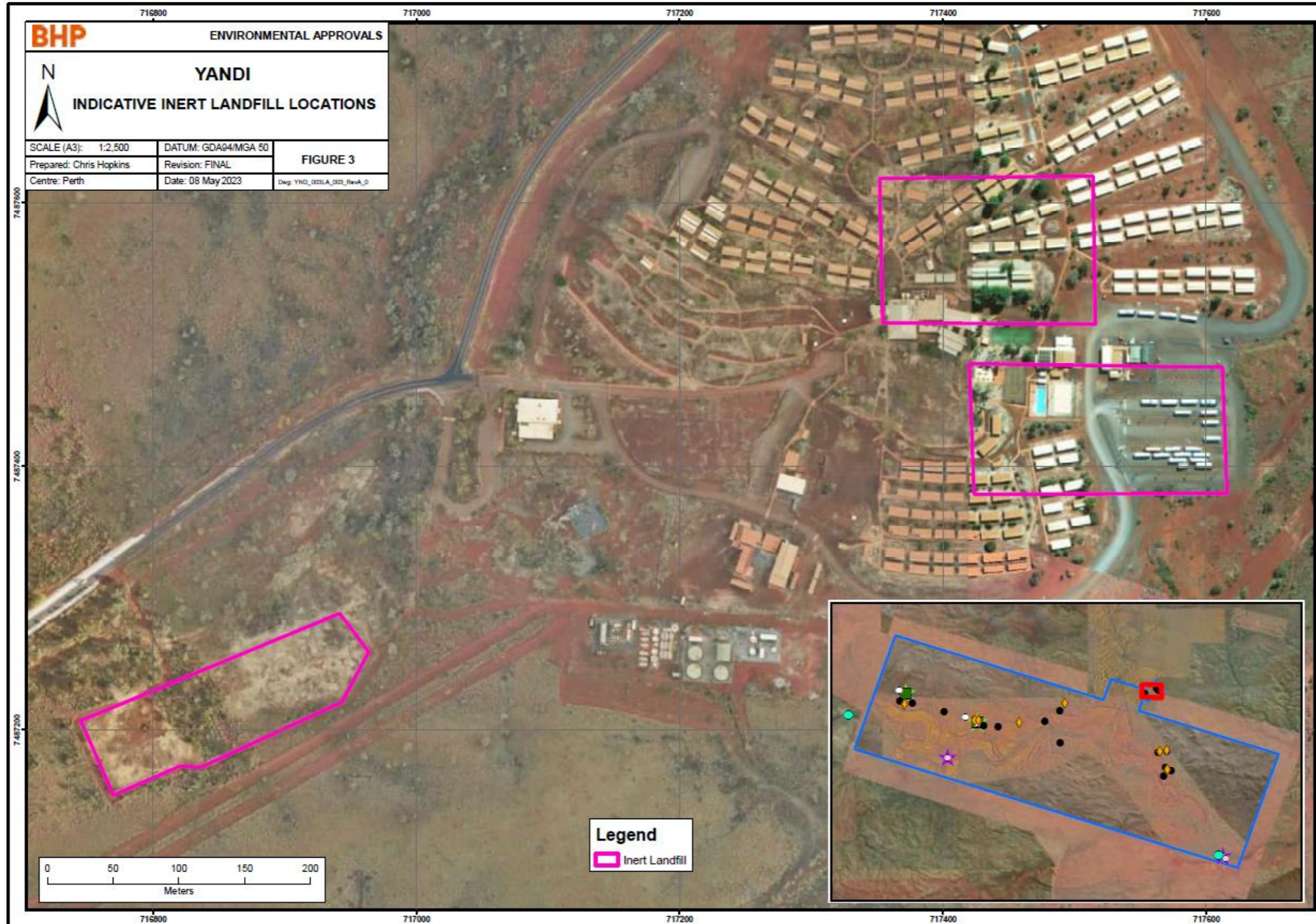
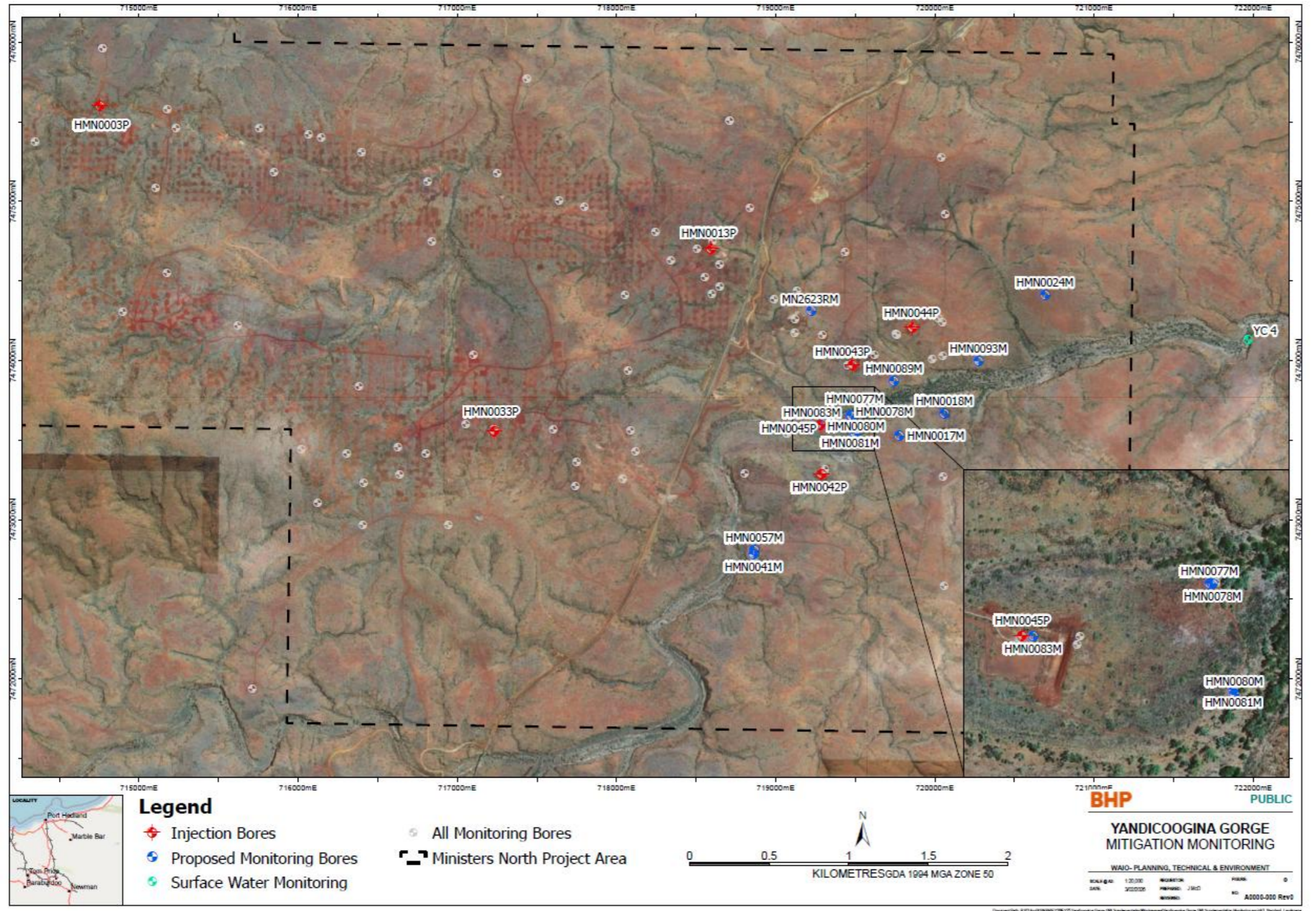


Figure 3: Indicative Inert Landfill Locations



4: Trial monitoring bore locations

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 19.

Table 19: Premises boundary coordinates (GDA2020)

	Easting	Northing	Zone
1.	704481.82	7490541.67	GDA 1994 MGA Zone 50
2.	714784.89	7486945.16	GDA 1994 MGA Zone 50
3.	715198.68	7488071.36	GDA 1994 MGA Zone 50
4.	716701.09	7487519.20	GDA 1994 MGA Zone 50
5.	717466.94	7487946.94	GDA 1994 MGA Zone 50
6.	717808.33	7487335.66	GDA 1994 MGA Zone 50
7.	716935.12	7486847.97	GDA 1994 MGA Zone 50
8.	716805.61	7487079.86	GDA 1994 MGA Zone 50
9.	716531.93	7486335.29	GDA 1994 MGA Zone 50
10.	723469.10	7483913.57	GDA 1994 MGA Zone 50
11.	721347.81	7477838.09	GDA 1994 MGA Zone 50
12.	702360.11	7484466.54	GDA 1994 MGA Zone 50
13.	704481.82	7490541.67	GDA 1994 MGA Zone 50

Schedule 3: Monitoring parameters

Table 20: Point source emissions to surface water monitoring parameters

Monitoring parameter
<p>PFAS (28 compounds):</p> <p><u>Perfluoroalkyl sulfonic acids</u></p> <ol style="list-style-type: none"> 1. Perfluorobutane sulfonic acid (PFBS); 2. Perfluoropentane sulfonic acid (PFPeS); 3. Perfluorohexane sulfonic acid (PFHxS); 4. Perfluoroheptane sulfonic acid (PFHpS); 5. Perfluorooctane sulfonic acid (PFOS)¹; 6. Perfluorodecane sulfonic acid (PFDS); <p><u>Perfluoroalkyl carboxylic acids</u></p> <ol style="list-style-type: none"> 7. Perfluorobutanoic acid (PFBA); 8. Perfluoropentanoic acid (PFPeA); 9. Perfluoroheptanoic acid (PFHpA); 10. Perfluorohexanoic acid (PFHxA); 11. Perfluorooctanoic acid (PFOA)¹; 12. Perfluorononanoic acid (PFNA); 13. Perfluorodecanoic acid (PFDA); 14. Perfluoroundecanoic acid (PFUnDA); 15. Perfluorododecanoic acid (PFDoDA); 16. Perfluorotridecanoic acid (PFTrDA); 17. Perfluorotetradecanoic acid (PFTeDA); <p><u>Perfluoroalkyl sulfonamides</u></p> <ol style="list-style-type: none"> 18. Perfluorooctane sulfonamide (FOSA); 19. N-methyl perfluorooctane sulfonamide (MeFOSA); 20. N-ethyl perfluorooctane sulfonamide (EtFOSA); 21. N-methyl perfluorooctane sulfonamidoethanol (MeFOSE); 22. N-ethyl perfluorooctane sulfonamidoethanol (EtFOSE); 23. N-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA); 24. N-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA); <p><u>Fluorotelomer sulfonic acid</u></p> <ol style="list-style-type: none"> 25. 4:2 fluorotelomer sulfonic acid (4:2 FTS); 26. 6:2 fluorotelomer sulfonic acid (6:2 FTS); 27. 8:2 fluorotelomer sulfonic acid (8:2 FTS); 28. 10:2 fluorotelomer sulfonic acid (10:2 FTS). <p>Appropriate limits of reporting (LOR) must be adopted.</p>

Note 1: Parameter already specified in Table 10.

Schedule 4: Notification Form



Government of **Western Australia**
Department of **Water and Environmental Regulation**

Licence:

Licence holder:

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 licence holder	
Date	