

Powerlink Queensland

Contaminated Land

Technical Note

February 2024



Background

A desktop assessment was undertaken on the proposed campsite located at Lot 129SP119557. This assessment identified the following:

- The proposed Hughenden camp location is not listed on the Environment Management Register (EMR) and Contaminated Land Register (CLR).
- Historical aerial photography shows limited use of the site with some ground disturbance appearing to have occurred in the southern and eastern portions of the site sometime between 2009 and 2023.
- There is no potential Unexploded Ordinance (UXO).
- There are no prescribed Environmentally Relevant Activities (ERA's) within a 500m radius of the proposed campsite location.

Following the completion of the desktop assessment and using the findings of the assessment, a contaminated land limited intrusive investigation was also undertaken on this same lot to determine if there were any actual contamination sources. This investigation was completed to ensure:

- Any occupational health risk was clearly identified and appropriately mitigated.
- Establish a soil contamination baseline for the purpose of rehabilitation planning.

Results

Refer to **Appendix-1** for the site layout and test location plan. The following results were obtained from the intrusive investigation on Lot/Plan 129 SP119557:

- The reported concentrations of all Contaminants of Potential Concern (CoPC) analysed were below the adopted Health Investigation Levels (HIL)/Health Screening Levels (HSL) for HSL-A and HIL/HSL – C Soil Assessment Criteria (SAC).
- The following samples reported concentrations of metals/metalloids that exceeded the adopted Environmental Investigation Level (EIL) SAC for an urban residential and public open space land use scenario:
 - The concentration of copper in samples Hug1-BH1/0-0.2 (110 mg/kg), Hug2-BH12/0-0.2 2/0.5 (80mg/kg), and Hug1-BH2/0.3-0.5 (68 mg/kg), exceeded the adopted criterion of 50 mg/kg.
 - Exceedances of nickel were detected above the adopted criterion of 35 mg/kg in seven out of fifteen samples ranging between 40 mg/kg to 81mg/kg.
 - Exceedances of zinc were detected above the adopted criterion of 150 mg/kg in three samples, namely Hug2-BH5/0-0.2 (170 mg/kg), Hug2-BH6/0-0.2 (190 mg/kg) and Hug2-BH12/0-0.2 (250 mg/kg).
 - No asbestos was detected in all soil samples analysed and no obvious PACM was encountered during this intrusive site investigation.
 - Crystalline Silica (Quartz) content was analysed in two topsoil samples, namely Hug2 – BH5 and Hug2 – BH12, and identified 21% and 14% Quartz content by weight respectively.

Conclusions

The investigation results did not indicate the presence of soil contamination at concentrations likely to present an unacceptable risk to potential human or ecological receptors except for exceedances of nickel, zinc, and copper above EILs SAC at Hughenden campsite. This was identified as a potential data gap and further investigation is recommended at these campsites to address and mitigate potential environmental impacts. The detections of these metals, specifically copper, and zinc could potentially be reflective of natural background conditions. However, further investigation is required to establish the background concentrations for these metals.

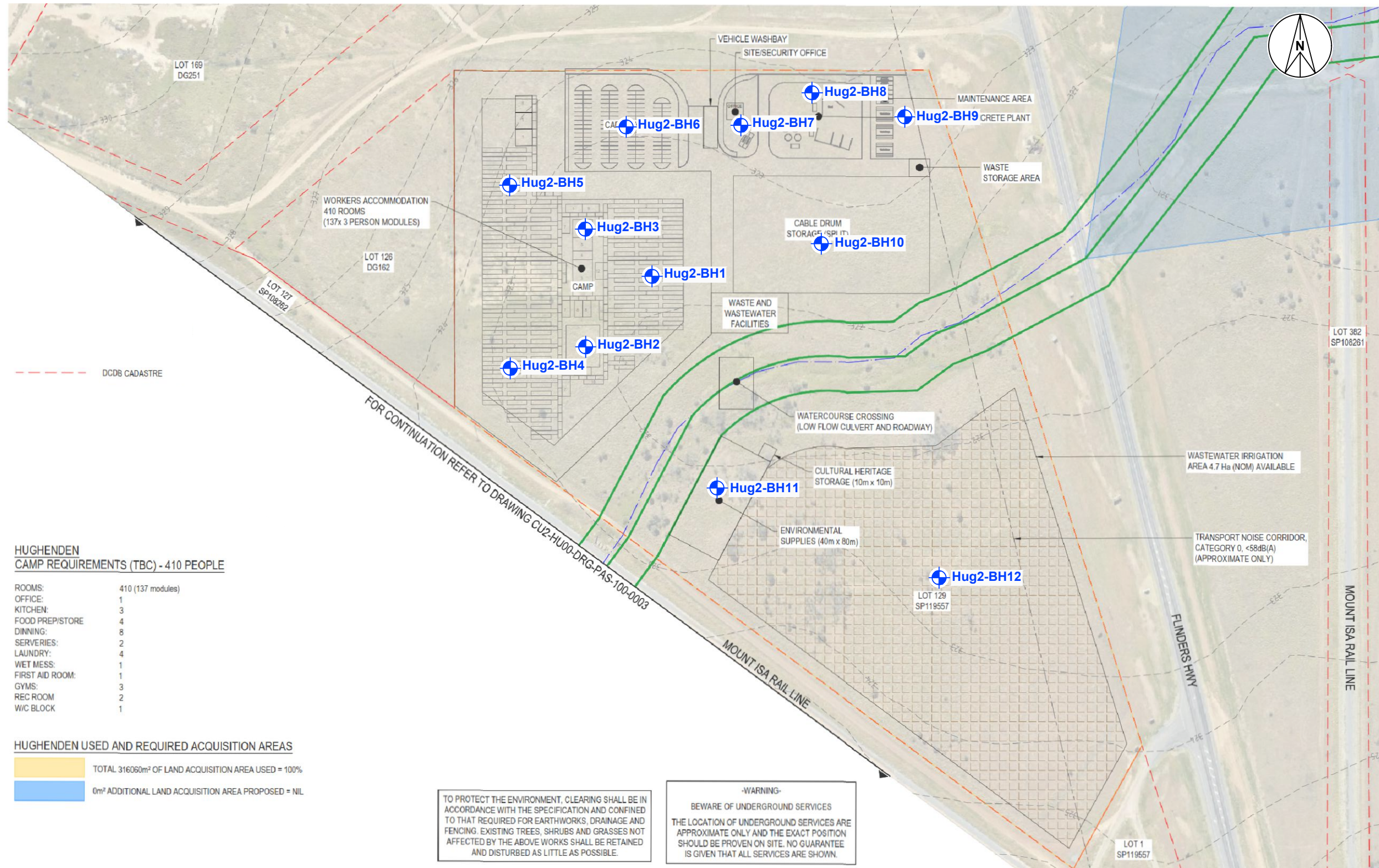
Unexpected Finds Protocol (UFP)

Notwithstanding the above conclusions and the data gap identified from the limited site investigation, some potential may exist for isolated pockets of contamination being present in other parts of the site not investigated. Therefore, Douglas recommends the preparation and implementation of an Unexpected Finds Protocol (UFP). The UFP should be included in early works/bulk earthworks Environmental Management Plans (or similar) at the site. Unexpected finds would typically be able to be identified by visual or olfactory indicators and could include:

- Waste materials in fill, including building and demolition waste.
- Fibre cement fragments (e.g., asbestos containing material (ACM)).
- Stained fill/soil; • Odorous soils (e.g., hydrocarbon odours); and/or
- Ash and/or slag. The following should be implemented in the event of an unexpected find.
- All work in the immediate vicinity should cease and temporary barricades should be erected to isolate the area.
- A suitably qualified contaminated land consultant should be engaged to inspect the find and provide advice on the appropriate course of action.
- Any actions should be implemented and validated to demonstrate that there are no unacceptable risks to the receptors.

In the event of an unexpected find, a suitably qualified contaminated land consultant should be engaged to inspect the find and provide advice on the appropriate course of action.

1 Appendix-1: Hughenden Camp Site Layout and Test Location Plan



**HUGHENDEN
CAMP REQUIREMENTS (TBC) - 410 PEOPLE**

ROOMS:	410 (137 modules)
OFFICE:	1
KITCHEN:	3
FOOD PREP/STORE:	4
DINNING:	8
SERVICES:	2
LAUNDRY:	4
WET MESS:	1
FIRST AID ROOM:	1
GYMS:	3
REC ROOM:	2
W/C BLOCK:	1

HUGHENDEN USED AND REQUIRED ACQUISITION AREAS

- TOTAL 316060m² OF LAND ACQUISITION AREA USED = 100%
- 0m² ADDITIONAL LAND ACQUISITION AREA PROPOSED = NIL

TO PROTECT THE ENVIRONMENT, CLEARING SHALL BE IN ACCORDANCE WITH THE SPECIFICATION AND CONFINED TO THAT REQUIRED FOR EARTHWORKS, DRAINAGE AND FENCING. EXISTING TREES, SHRUBS AND GRASSES NOT AFFECTED BY THE ABOVE WORKS SHALL BE RETAINED AND DISTURBED AS LITTLE AS POSSIBLE.

-WARNING-
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THE EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

Name	Zone: 55K	
	Easting	Northing
Hug2-BH1	208554	7691021
Hug2-BH2	208502	7690971
Hug2-BH3	208492	7691079
Hug2-BH4	208423	7690968
Hug2-BH5	208419	7691122
Hug2-BH6	208512	7691160
Hug2-BH7	208580	7691138
Hug2-BH8	208649	7691167
Hug2-BH9	208714	7691149
Hug2-BH10	208637	7691077
Hug2-BH11	208576	7690909
Hug2-BH12	208745	7690811

LEGEND:-

- +
 Borehole Location and Number

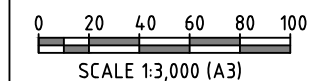
NOTE:-

1. Test locations are approximate only and are shown with reference to existing site features.
2. Plan adapted from drawing No.CU2-HU00-DRG-PAS-100-0003 provided by UGL Pty Limited.



CLIENT: UGL Pty Limited
 OFFICE: Brisbane DRAWN BY: JST
 SCALE: As shown DATE: 4 October 2023

TITLE: **SITE AND TEST LOCATION PLAN
 COPPERSTRING 2.0 - PROPOSED SUBSTATIONS
 HUGHENDEN - CAMP & LAYDOWN**



PROJECT No: 200446.02
 DRAWING No: 3
 REVISION: 0