Swan River Ferry Expansion

Matilda Bay: Preliminary Site Investigation and Limited Sampling Event

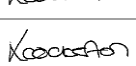
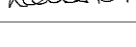
Public Transport Authority

04 September 2025

→ The Power of Commitment

Acknowledgement of Country

GHD acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of the land, water and sky throughout Australia on which we do business. We recognise their strength, diversity, resilience and deep connections to Country. We pay our respects to Elders of the past, present and future, as they hold the memories, knowledges and spirit of Australia. GHD is committed to learning from Aboriginal and Torres Strait Islander peoples in the work we do.

Project name	Swan River Ferry Expansion: PSI & Swan River WQ Monitoring						
Document title	Swan River Ferry Expansion | Matilda Bay: Preliminary Site Investigation						
Project number	12658388						
File name	12658388-REP-Matilda Bay Opt1&2 PSI.docx						
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S3	A	Z Langtry	S French		S French		23/05/25
S4	0	Z Langtry	L Cockerton		S French		11/06/25
S4	1	L Cockerton	L Cockerton		S French		04/09/25

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Executive summary

Background

The Public Transport Authority of Western Australia (PTA) is the primary supplier of public transport services in Western Australia (WA) and is one of three key transport agencies that work to coordinate a smarter, integrated, and optimised network for WA. Future expansion of ferry services is a natural progression to meet the needs of an expanding city, supporting activation of popular, high-density living riverside precincts. GHD understands that the PTA is undertaking feasibility studies to identify appropriate development envelopes (DE) for future ferry landings to enable the expansion of the Transperth ferry services (the 'Project').

The PTA has identified that contamination is a key environmental issue for the Project, and additional information in the form of a Preliminary Site investigation (PSI) to inform feasibility studies for each DE is required to identify Contaminants of Potential Concern (CoPC), which may pose risk to human health and/or the environment.

This report was developed for Matilda Bay Option 1 (henceforth "Site 1") and Matilda Bay Option 2 (henceforth "Site 2") with boundaries presented in Figure 1 (Appendix A). The PTA subsequently advised[1] that mid-Matilda Bay (Site 2) is the preferred location. At this time, information is retained in this PSI concerning Site 1 to provide further context for Matilda Bay in the vicinity of the preferred Site 2 location.

Purpose and objectives

The purpose of this report is to present a preliminary assessment of potential risks posed by contamination to relevant receptors at Site 1 and Site 2 (the Sites) in the form of human health, the environment and/or environmental values with respect to proposed development. The outcomes of the PSI will be used to inform decision-making for construction of the proposed Matilda Bay Ferry Landing.

The objectives of this report are to:

– Present the findings of desktop study (site history and environmental setting information) and site inspection conducted at the Sites to inform the PSI.
– Develop a preliminary Conceptual Site Model (CSM) which identifies the known and potential sources of contamination, transport and exposure pathways, and receptors (human health and environmental). This synthesises the understanding of the Sites with respect to contamination to inform preliminary assessment of risks.
– From the above, determine the need (if any) for further action (e.g. further investigation work or other management) with respect to potential risks posed by contamination, to facilitate construction of the proposed ferry landing at the selected Sites.

Scope of work

To meet the stated objectives the below scope of the works were completed with reference to the Department of Water and Environmental Regulation (DWER), *Assessment and Management of Contaminated Sites* (DWER 2021).

– Phase 1: Desktop study and data review.
– Phase 2: Site inspection and limited-scope soil assessment.
– Phase 3: PSI Reporting (this report).

A detailed methodology is provided in Section 2.

Site description

Both Sites are located within the Matilda Bay Reserve and foreshore, a Class 'A' reserve (Department of Biodiversity, Conservation and Attractions, DBCA). Site 2 *(preferred)* is partially located within the carpark of the University of Western Australia (UWA) on the western portion of Site 2. The Matilda Bay Reserve (which was established circa 1920 [Appendix E]) comprises: a predominately grassed public open space with trees and

[1] On 12th May 2025

utilised as a recreational space with facilities such as sitting areas, toilets and restrooms, running to south along the Swan River.

The topography of Matilda Bay Reserve is approximately 6 m on the west (along Hackett Drive) sloping down to 0.5 m to 1 m above surface water level in the eastern portion of the Matilda Bay Reserve (foreshore) at both Sites. A concrete footpath is present, running north to south, along the western edge of the Matilda Bay reserve through both Sites. The footpath was observed to be in good condition however it was heavily stained (orange) most likely due to bore water used for irrigation of the Matilda Bay Reserve. Similar staining was observed on recreational facilities (toilets, benches and restrooms). The eastern portion of both Sites is the Swan River/Matilda Bay which is used recreationally for water sports (such as sail boats, Stand Up Paddleboards and kayaks etc) and swimming. Fill material (brick and concrete fragments) were observed along the foreshore (Site 1) and surface of the grassed areas (Site 1 and Site 2) within the Matilda Bay Reserve.

The western portion of Site 2 extends west of the Matilda Bay Reserve including: concreted foot paths and bitumised parking for the UWA, separated by a vegetated nature strip from Hackett Drive (a public road) which runs north to south through Site 2. East of Hackett Drive the site comprises a bituminised parking area for the Matilda Bay Reserve

Site understanding and CSM summary

Both the preferred Site 2 and Site 1 are located within the Matilda Bay Reserve and foreshore, a class 'A' reserve (DBCA) which is comprised of a vegetated area (grass and trees) used as a public open space with recreational facilities, running to south along the Swan River and established circa 1920.

Materials associated with uncontrolled fill were observed within the Matilda Bay Reserve foreshore area (Site 1) and subsurface soils (Site 2). Site 2 is partially comprised of Hackett Drive and a UWA carpark in the western portion of Site 2. Stormwater drains were observed within the foreshore of the Matilda Bay Reserve at Site 1 and Site 2 which likely discharge into the Matilda Bay (and therefore the Swan River) (Figure 2).

Neither Site is currently classified under the *Contaminated Sites Act* (CS Act). Exceedances of EIL-A (six samples) and EIL-C (one sample) were observed during limited soil testing completed within Site 1 (four samples) and Site 2 (two samples). However, default EIL values were used, which assume the most conservative values and do not account for Ambient Background Concentrations (ABCs) and therefore likely overestimates risk (i.e. results are not necessarily indicative of an unacceptable risk to relevant ecological receptors). Uncertainty remains however due to the limited nature of sampling undertaken, including with respect to potential for the presence of Asbestos Containing Material (ACM).

Matilda Bay has been used for recreational boating purposes (a potentially contaminating activity, DWER 2021) for decades including the Water Sports Complex, UWA boat club (both north of Site 1) and Royal Perth Yacht Club (south of Site 2) which indicates potential for sediments within Matilda Bay to be impacted by historical land use (heavy metals, metals, hydrocarbons and antifouling paints). Disturbance of the sediments (piling installation) may release CoPC within sediments into the surrounding aquatic environment.

Based on current information, the preliminary CSM (PCSM) identifies that a source-pathway-receptor (SPR) linkage concerning interaction with contaminated soils at the landside portion of the Site would potentially be complete with respect to relevant receptors comprising:

– On-site intrusive workers
– Matilda Bay (ecosystem health condition)
– Threatened fauna (avian and aquatic)

Based on the results of this investigation: the risk to identified receptors is considered to be low and acceptable, however further assessment is considered to be required to confirm this (due to remaining uncertainty).

The PCSM also identifies a potentially complete SPR linkage concerning potential surface water and sediment within the waterside portion of the Sites with respect to relevant receptors comprising:

– On-site construction workers undertaking intrusive works
– Recreational and cultural users of Matilda Bay (beneficial use).
– Matilda Bay (ecosystem health condition).
– Flora and fauna (avian and aquatic) at Matilda Bay and Matilda Bay Reserve.

Conclusions and recommendations

Based on current information risks posed by construction disturbance for the proposed ferry landing development are at this time considered likely to low and acceptable for relevant receptors as no CoPC concentrations were observed above the adopted human health assessment criteria and surface water quality. However, this is subject to uncertainty as:

– The limited scope soil sampling is subject to remaining uncertainty (in particular CoPC concentrations within fill layers are not typically consistent throughout and soil sampling was not complete where landside disturbance for the Project is going to occur). ACM was not observed, however potential for such presence cannot be precluded.
– Surface water quality at the Site is currently unknown. A programme of water quality monitoring at the Site is however being undertaken to characterise baseline surface water quality at the Site and therefore address this data gap.
– In the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils (including leachate assessment) to be disposed would be required.
– Bore water quality is not known (to GHD). However, based on current information and anticipated construction disturbance, irrigation practices at the Site are not at this time considered likely to pose an unacceptable risk to relevant receptors.
– It cannot at this time be precluded that sediment quality is capable of posing a risk to relevant receptors.

Based on the above conclusions, it is recommended that:

– Soil sampling is undertaken within the proposed development area (where the landside disturbance is to occur) prior to construction to determine the extent and magnitude of CoPC (and confirm current understanding of risk) for the soils to be disturbed. This requirement should be confirmed/refined when the proposed design has been confirmed, and likely construction requirements are better defined.
– With respect to the above:
    - In the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils to be disposed should also be undertaken. Such further characterisation should include (but not be limited to) consideration of Concentration Limit (CL) criteria including with respect to Australian Standard Leaching Procedures (ASLP) to facilitate such further classification.
    - Aesthetic considerations should also be considered with respect to disturbance of fill and its reinstatement in construction works (due to presence of construction and demolition type materials which may be exposed).
– Ongoing surface water quality monitoring results are assessed to understand baseline surface water quality and confirm the current understanding of risk posed by construction disturbance for the proposed ferry landing development.
– Sediment sampling is undertaken within the proposed development area prior to construction to determine sediment quality and the potential risk to the receiving environment (Matilda Bay). This requirement should be confirmed/refined when the proposed design has been confirmed and likely construction requirements are better defined. In particular, consideration should be given to the extent of waterside disturbance (such as from pile installation/fixed jetty construction or other waterside features).
– When the proposed design has been confirmed and likely construction requirements are better defined, confirm the preliminary assessment outcome that no action is needed to address the current data gap concerning groundwater quality.
– As a precautionary measure, during landside excavations, it is recommended to develop procedures to:
    - Manage excavated materials (for reuse or off-site disposal).
    - Manage unexpected finds

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1. Introduction

1.1 Background

The Public Transport Authority of Western Australia (PTA) is the primary supplier of public transport services in Western Australia (WA) and is one three key transport agencies that work to coordinate a smarter, integrated, and optimised network for WA. Future expansion of ferry services is a natural progression to meet the needs of an expanding city, supporting activation of popular, high-density living riverside precincts[2]. GHD understands that the PTA wishes to undertake feasibility studies to identify appropriate Development Envelops (DEs) for future ferry landings to enable the expansion of the Transperth ferry services (the 'Project'). Six DEs are understood to be considered as future landings comprising:

– Applecross
– Barrack Street Jetty
– Elizabeth Quay
– Ellam Street and
– Matilda Bay (Option 1 and Option 2)

The PTA has identified that contamination is a key environmental issue for the Project, and additional information in the form of a Preliminary Site investigation[3] (PSI) to inform feasibility studies for DEs is required to identify Contaminants of Potential Concern (CoPC), which may pose risk to human health and/or the environment.

GHD has been engaged to complete a standalone PSI for each of the six DEs identified above. As the DE for Matilda Bay is un-confirmed, the PTA provided two site boundaries located in the northern and central-southern portion of Matilda Bay. Based on these two potential areas, this report was developed for Matilda Bay Option 1 (henceforth "Site 1") and Matilda Bay Option 2 (henceforth "Site 2") with boundaries presented in Figure 1 (Appendix A). The PTA subsequently advised[4] that mid-Matilda Bay (Site 2) is the preferred location. At this time, information is retained in this PSI concerning Site 1 to provide further context for Matilda Bay in the vicinity of the preferred Site 2 location.

1.2 Purpose of this report

The purpose of this report is to present a preliminary assessment of potential risks posed by contamination (CoPC) to relevant receptors at the Sites in the form of human health, the environment and/or environmental values with respect to proposed development. The outcomes of the PSI will be used to inform decision-making for construction of the proposed Matilda Bay Ferry Landing.

1.3 Objective

The objectives of this report are to:

– Present the findings of desktop study (site history and environmental setting information) and site inspection conducted at the Sites to inform the PSI.
– Develop a preliminary Conceptual Site Model (CSM) which identifies the known and potential sources of contamination, transport and exposure pathways, and receptors (human health and environmental). This synthesises the understanding of the Sites with respect to contamination to inform preliminary assessment of risks.
– From the above, determine the need (if any) for further action (e.g. further investigation work or other management) with respect to potential risks posed by contamination, to facilitate construction of the proposed ferry landing at the selected Sites.

[2] https://www.pta.wa.gov.au/projects/current-projects/ferry-service-expansion
[3] Including limited soil sampling at the following investigation areas; Applecross, Ellam Street, Matilda Bay Option 1 and Matilda Bay Option 2.
[4] On 12th May 2025

To meet the stated objectives the below scope of the works were completed with reference to the Department of Water and Environmental Regulation (DWER), *Assessment and Management of Contaminated Sites* (DWER 2021).

– Phase 1: Desktop study and data review.
– Phase 2: Site inspection and limited-scope soil assessment.
– Phase 3: PSI Reporting (this report).

A detailed methodology is provided in Section 2.

1.4 Limitations

This report: has been prepared by GHD for Public Transport Authority and may only be used and relied on by Public Transport Authority for the purpose agreed between GHD and Public Transport Authority as set out in Section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Public Transport Authority arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

GHD has prepared this report on the basis of information provided by the PTA who provided information to GHD (including government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer to Section 1.5 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

Future development in a different context and/or location to that identified in Section 3.3, such as (but not limited to) a more sensitive land use, is not considered in this assessment.

Accessibility of documents

If this report is required to be accessible in any other format, this can be provided by GHD upon request and at an additional cost if necessary.

1.5 Assumptions

The following assumptions were made by GHD in the preparation of this report:

– GHD assumes that the information obtained from external sources (Land Insight and Resources Pty Ltd [Land Insight], government bodies, consultants' reports etc.) are correct and up to date and acknowledges that this information may change at any time.
– Relevant third-party information (where referenced) can be relied upon for the purpose of the work.
– No groundwater will be abstracted for the proposed development.
– The end land use setting will remain as Public Open Space. Reuse in a different context and/or location such as a more sensitive land use is not included in this assessment.
– A moderate amount of shallow (< 1 m) landside soil disturbance will occur during construction of the proposed ferry terminal and associated supporting infrastructure (such as electrical charging infrastructure, toilet block and bus bays).
– No significant recreational fishing occurs directly from the Swan River at the shoreline of the Sites, to source aquatic fauna for human consumption.

2. Scope of works

The following scope of work was undertaken to achieve the objectives of the Project as defined in Section 1.3. The returned results of the searches are presented in Appendix B.

2.1 Phase 1: Desktop review

A review of available information[6] was undertaken to gain an understanding of the Sites and the surrounding areas and previous site activities to identify potential sources of contamination or potentially contaminating activities, this comprised:

- **Historical Land Use**
  - Review of the Cultural Heritage of the Site (Aboriginal and European) from the Department of Planning, Lands and Heritage (DPLH) Aboriginal Cultural Heritage Inquiry System; the National Native Tribunal online mapping; and the Places database (state Register of Heritage Places), available from the Heritage Council of Western Australia.
  - Review of historical aerial photographs, on a (typically) five to ten-year basis, showing the development of Site 1 and Site 2 (if available).
  - Review of historical Certificates of Titles (CoT) to determine past owners of the Sites and the likely associated Site uses. This was compared against the list of 'potentially contaminating industries, activities and land uses' within the DWER (2021) guidelines.
- **Physical Characteristics**
  - Review of local topography (i.e. landforms) and surface waters (including drainage) to identify possible surface water flows and potential contaminant receptors.
  - Review of local and regional geology and hydrogeology to determine the likely soil type and groundwater regime at the Sites.
  - Review of available Acid Sulfate Soil (ASS) risk mapping.
  - Review of relevant DWER and Bureau of Meteorology (BoM) online mapping portals to ascertain the use and available groundwater quality information within the vicinity of the Sites.
- **Flora and Fauna**
  - Search of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST) for Threatened communities and species that may potentially occur in the area.
  - Search of Department of Biodiversity, Conservation and Attractions (DBCA) Dandjoo Biodiversity Data Repository database for previously recorded flora and fauna.
  - Search of DBCA Threatened and Priority and WA Herbarium databases for previously recorded Rare and Priority flora.
- **Recent and Present Land Use**
  - Review of Local and State Planning Schemes and Policy search.
  - Review of Council records and Complaints Register Search, such as those associated with the presence of any demolished structures, pollution incident reports, prosecution briefs, inspection records and reports of illegal tipping.
  - Review of any site plans made available by PTA or sourced from local and state authorities (if available).
  - Review of surrounding land uses to assess potentially sensitive receptors to any suspected contamination and to assess land uses that have the potential to affect Site 1 and Site 2.

[6] This included data sourced from Land Insight which is a commercial provider of proprietary and third-party datasets relevant to the scope of this PSI

- Review of current CoTs and survey plans to determine ownership and land uses and any relevant memorials on title.
- Freedom of Information (FOI) requests to the DWER to obtain information (where available) relating to historical spills, complaints and odours at the Site 1 and Site 2.
- Review of the Dangerous Goods Licence search under the FOI Act to ascertain whether dangerous goods were historically stored on Site 1 and Site 2.
- Review DWER Contaminated Sites Database with respect to Site 1 and Site 2 and to ascertain whether any surrounding properties have been identified as contaminated sites (note: the DWER Contaminated Sites Database lists sites which are classified as *Contaminated – remediation required* (CRR), *Contaminated – restricted use* (CRU), and *Remediated for restricted use* (RRU) and does not include sites under investigation).
- Submission of DWER Basic Summary of Records (BSR) request to ascertain whether the Site 1 and Site 2 have been reported to or classified under the Contaminated Sites Act 2003 (CS Act) by the DWER.

The findings of the desktop review were used to inform Phase 2: Site inspection, interviews and limited soil sampling.

2.2 Phase 2

2.2.1 Site inspection and interviews

GHD undertook a site inspection at Site 1 and Site 2 on 2 May 2025, comprising a site walkover and visual inspection to assess the current site condition and layout, to validate information obtained during the desktop study (Phase 1), and to identify any additional relevant site information. The site inspection was undertaken by suitably experienced GHD environmental scientists. GHD personnel collected photos and recorded field notes to document the site condition at the time of the inspection.

GHD interviewed a person knowledgeable about the site history and activities (DBCA representative) as part of the site inspection.

Field notes and photo logs are presented in Appendix C.

2.2.2 Limited soil sampling

On 2 May 2025, concurrent with the site inspection, limited soil (terrestrial) sampling was completed at six locations (three locations within each Site). The sampling locations are included below.

– Site 1 locations:
  - MatBay1_HA01.
  - MatBay1_HA02.
  - MatBay1_HA03.
– Site 2 locations:
  - MatBay2_HA01.
  - MatBay2_HA02.
  - MatBay2_HA03.

A visual inspection was conducted of the sample locations and immediate surrounds for potential indicators of contamination (e.g., staining, liquids, odours, potential asbestos containing materials [ACM], rubble, or waste materials).

Opportunistic soil sampling informed by the above Phase 1 and Phase 2 tasks was completed via hand auguring to a maximum depth of 1.0 m below ground level (m bgl) within existing and accessible site features such as accessible soils in the garden beds, foreshore or lawned areas at the Sites.

Three soil samples including surface samples were collected from each location (nine primary samples total per site) and submitted to National Association of Testing Authorities (NATA) accredited laboratories for analysis of a combination of the following CoPC (Table 16):

– Metals (arsenic, cadmium, chromium, copper, nickel, lead, zinc, and mercury).
– Total Recoverable Hydrocarbons (TRH).
– Benzene, Tolune, Ethylene, Xylene and Naphthalene (BTEXN).
– Polycyclic Aromatic Hydrocarbons (PAH).
– Chlorinated hydrocarbons.
– Volatile Organic Compounds (VOC)/ Semi-Volatile Organic Compounds (SVOC).

Field screening of collected soil samples for volatile organic compounds (VOC) was completed using a handheld photoionisation detector (PID) fitted with a 9.6 eV lamp.

Field observations including visual and olfactory observations of the soil characteristics, type, quality, and condition of the encountered soil profile was recorded on field sheets for inclusion within this report.

Soil analytical results (Appendix D) were compared to adopted Tier 1 assessment criteria and discussed further within Phase 3: Reporting.

2.3 Phase 3: Reporting

The preparation of a PSI (this report) and limited-scope soil assessment report (this report) for Site 1 and Site 2 with reference to DWER (2021) and National Environment Protection Council (NEPC 2013) guidance.

Key items within the report comprise:

– The scope of work completed.
– Site history and environmental setting information.
– Site inspection observations.
– Methodology and results of the limited-scope soil assessment, including a Tier 1 risk assessment comparing the collected soil data with published human health and ecological screening criteria.
– A preliminary CSM which identifies the known and potential sources of contamination, transport and exposure pathways, and receptors (human health and environmental) and synthesises the site understanding with respect to contamination and the assessment of risks.
– Conclusions and recommendations with respect to the need (if any) for further investigation works or management, to facilitate construction of the proposed ferry landings at Site 1 and Site 2.

3. Site setting

3.1 Site identification

Site 1 and Site 2 are located approximately 4.3 km and 4.4 km South-West (SW) of the Perth Central Business District (CBD), WA (Figure 1, Appendix A). Site identification details are summarised in Table 1 and the current Certificate of Titles (CoT) for each site are provided in Appendix E.

Table 1 Site identification

Attribute	Site 1 - Detail	Site 2 - Detail
Site address	4 Australia II Drive, Crawley, 6009	4 Australia II Drive, Crawley, 6009
Lot on Plan	**Landside:** Part of Lot 14555 on Plan 032409 Part of Lot 11298 on Plan 189686 Lot 13177 on Plan 189686 Lot 2885 on Plan 230371 **Riverside:** Part of Lot 300 on Plan 047450	**Landside:** Part of Lot 14555 on Plan 032409 Part of Lot 2885 on Plan 230371 Part of Lot 11627 on Plan 218241 Part of Lot 10605 on Plan 186614 **Riverside:** Part of Lot 300 on Plan 047450
Certificate of title	**Landside:** Volume: 3140, Folio: 662 (Lot 11298 on Plan 189686) Volume: 3128, Folio 401 (Lot 14555 on Plan 032409) Volume: 3143, Folio 31 (Lot 2885 on Plan 230371) Volume: 3112, Folio: 303 (Lot 13177 on Plan 189686) **Riverside:** Volume: 3151, Folio: 547 (Lot 300 on Plan 047450)	**Landside:** Volume: 3128, Folio 401 (Lot 14555 on Plan 032409) Volume: 3143, Folio: 32 (Lot 11627 on Plan 218241) Volume: 3143, Folio: 31 (Lot 2885 on Plan 230371) Volume: 3147, Folio: 25 (Lot 10605 on Plan 186614) **Riverside:** Volume: 3151, Folio: 547 (Lot 300 on Plan 047450)
Registered proprietor/s	**Registered proprietor**	**Lot**
	The State of WA – DBCA State Conservation Land Management (SCLM)	Part of Lot 14555 on Plan 032409
	The State of WA	Part of Lot 11298 on Plan 189686
	The State of WA	Lot 13177 on Plan 189686
	The State of WA	Lot 2885 on Plan 230371
	The State of WA	Part of Lot 11627 on Plan 218241
	The State of WA	Part of Lot 10605 on Plan 186614
	The State of Western Australia – DBCA SCLM	Part of Lot 300 on Plan 047450
Local government authority	City of Perth	City of Perth
Area (m^2)	27,045 (15,835 of which is the Swan River)	50,276 (32,314 of which is the Swan River)
Current zoning[7]	Waterways Regional Open Space Public Purposes – Water Authority of WA	Waterways Regional Open Space Public Purposes – University

[7] Metropolitan Region Scheme [MRS] available on 22 April 2025.

Attribute	Site 1 - Detail			Site 2 - Detail		
Existing land-use	At the time of preparing the PSI the Sites were used as public open space (Matilda Bay Reserve) (West) and the Swan River / Matilda Bay (East).			At the time of preparing the PSI the Sites were operational for; – Public purposes as University of Western Australia (UWA) (parking and nature strip) (West). – Public road (Hackett Drive) (West) – Public open space (Matilda Bay Reserve) (centre) – Swan River / Matilda Bay (East)		
Approximate site boundary coordinates[8]	**Corner**	**Easting**	**Northing**	**Corner**	**Easting**	**Northing**
	1	388511.8749	6461253.8007	1	388646.0426	6461595.5979
	2	388511.9336	6461109.0185	2	388712.1208	6461549.6968
	3	388807.8972	6461255.5123	3	388654.7264	6461421.4993
	4	388809.2892	6461080.9813	4	388585.6709	6461413.8297
				5	388720.5329	6461559.2834
				6	388825.3772	6461525.2306
				7	388783.109	6461403.1903
				8	388662.2786	6461443.5974

3.2 Site overview and layout

Both Sites are located within the Matilda Bay Reserve and foreshore, a Class 'A' reserve (DBCA). Site 2 is partially located within the carpark of the UWA on the western portion of Site 2. The Matilda Bay Reserve comprises: a predominately grassed public open space with trees and utilised as a recreational space with facilities such as sitting areas, toilets and restrooms, running to south along the Swan River (established circa 1920 [Appendix E]).

The topography of Matilda Bay Reserve is approximately 6 m on the west (along Hackett Drive) sloping down to 0.5 m to 1 m above surface water level in the eastern portion of the Matilda Bay Reserve (foreshore) at both Sites. A concrete footpath is present, running north to south, along the western edge of the Matilda Bay reserve through both Sites. The footpath was observed to be in good condition however it was heavily stained (orange) most likely due to bore water used for irrigation of the Matilda Bay Reserve. Similar staining was observed on recreational facilities (toilets, benches and restrooms). The eastern portion of both Sites is the Swan River/Matilda Bay which is used recreationally for water sports (such as sail boats, Stand Up Paddleboards and kayaks etc) and swimming. Fill material (brick and concrete fragments) were observed along the foreshore (Site 1) and surface of the grassed areas (Site 1 and Site 2) within the Matilda Bay Reserve.

Site specific site layouts are provided below and described further in below and in Section 6.

Site 1

The portion of the Matilda Bay Reserve within Site 1 is booked for public events, including weddings[9]. A small portion of the site (North-West corner) comprises a road (leading to the UWA Boat Club) and small pad-mounted transformers and main switch boards, which were in generally good condition but with heavy orange staining to the exterior. Site 1 is bound on the west by Hackett Drive, a major road, running north to south parallel to the Swan River. A concrete curb (approximately 10 cm) separates Hackett Drive from Matilda Bay Reserve. There is public parking along Hackett drive. Site 1 is bound by the Water Sports Complex to the north east, which consists of a boat shed and boat ramp, rest rooms and offices. Drains, likely to discharge into the Swan River, were observed in the north-east portion of Site 1 within the foreshore area.

[8] GDA2020, MGA Zone 50.
[9] A wedding ceremony was observed during the Site inspection.

Site 2

A public toilet block is present in the northern portion of Matilda Bay within Site 2. Site 2 extends west of the Matilda Bay Reserve including: concreted foot paths and bitumised parking for the UWA, separated by a vegetated nature strip from Hackett Drive (a public road) which runs north to south through Site 2. East of Hackett Drive the site comprises a bituminised parking area for the Matilda Bay Reserve, the Matilda Bay Reserve (a grassed public park) and the Swan River (Matilda Bay). A public toilet block is located in the northern portion of Site 2 within Matilda Bay Reserve. Sewer water covers were observed directly south (<2 m) of the toilet block. Stormwater water drains, likely to discharge into the Swan River, were observed in the north and south of Site 2 within the foreshore area.

3.3 Current land use and proposed land use

The ASC National Environment Protection Measures (NEPM [NEPC: 2013]) developed generic land use scenarios for the assessment of site contamination, based on the typical settings in Australia under which people may be exposed to contaminated media. The current land use is consistent with the following ASC NEPM land use category:

– Human health
  - Public open space (POS): Matilda Bay Reserve a public-accessible parkland (consistent with inclusion of parks and footpaths within the POS scenario and presence of recreational users). A portion of Site 2 is a UWA carpark and Hackett Drive. Under City of Perth scheme UWA's land use is considered for public purposes (Table 2). This is consistent with NEPM (2013) which does not typically include education facilities within the commercial/industrial land use.
– Ecological health
  - Area of Ecological Significance: The Matilda Bay Reserve is a national reserve (Class A) with ecological values worth preserving.

With respect to the above, it is noted that the UWA and Hackett Drive within Site 2 is entirely covered with hardstand/sealed surfaces such that exposure of recreational users to potentially impacted media is not feasible (compared to other forms of POS where soft-landscaped areas are present). Exposure of existing Matilda Bay Reserve users to potentially contaminated media is possible as it comprises grassed areas with exposed soils and access to the surface waters. For the existing Site use within Matilda Bay Reserve, potential for exposure of users (i.e. the public) to contaminated media under normal operating conditions is possible and consistent with POS exposure scenarios.

The proposed future use includes the construction and operation of a new ferry terminal within the Matilda Bay Reserve portion of each Site. Based on indicative designs a jetty, walkways and boarding pontoons (floating) (Figure 1) are likely to be erected. Additionally, a moderate amount of shallow (< 1 m) landside disturbance associated with infrastructure such as electrical charging, a toilet block and additional bus bays will be constructed to support the new ferry terminal. For this proposed use it is therefore expected that:

– From a human health perspective existing landside site use would remain POS, with similar exposure as current Matilda Bay and UWA users.
– Jetty (waterside) use would be POS with public access to the Ferry Terminal/public jetties use with similar exposure as current recreation water users.

It is considered that the current land-use for both Sites is public use (from a human health perspective) associated with general recreation, such as walking and eating, and swimming/boating and as an area of ecological significance (within the Matilda Bay Reserve). On this basis, future use is not expected to differ substantially from current use.

Figure 1 *Matilda Bay – Indicative ferry jetty design*

3.4 Surrounding land use and zoning

The zoning of the areas around each Site is summarised in Table 2.

Site 1

To the north the immediate surrounds are associated with recreational uses: Water Sports Complex, UWA boat club and Perth Dingy Sailing Club and accommodation: Forrest Hall and Wonil Hotel. These areas are comprised of multistorey buildings and hardstand (roads/parking). These are bound to the north by Mounts Bay Road, a primary regional road, which runs from east to west. East of Site 1 is the Swan River (Matilda Bay) used for swimming and recreational boating. To the west of Site 1 are Hackett Drive and the UWA which consists of recreational and educational facilities such as tennis courts, lecture halls, ovals and gardens. The Matilda Bay Reserve, a Class A nature reserve, extends south of Site 1 eventually passing through Site 2.

Site 2

The Matida Bay Reserve, a Class A nature reserve, extends north of Site 2 eventually passing through Site 1. East of Site 2 is the Swan River (Matilda Bay) used for swimming and recreational boating. To the west of the site is the UWA and associated facilities such as lecture halls, ovals, gardens and research facilities. The Matilda Bay Reserve extends south of Site 2 which includes roadside parking, public facilities (toilets) and the Bayside Kitchen. Further south of Site 2 (approximately 650 m) is Pelican Point, one of three biologically important areas within the Swan Estuary Marine Park.

Table 2 Surrounding zoning

Direction	Description	
	Site 1	**Site 2**
North	Public purposes – Water Authority (UWA Boat Club), Public purposes – university (UWA), Primary regional road (Mounts Bay Road), Regional open space (Kings Park)	Regional open space (Matilda Bay Reserve), Public purposes – Water Authority (UWA Boat Club), Public purposes – university (UWA), Primary regional road (Mounts Bay Road)
East	Waterways (Swan River)	Waterways (Swan River)
South	Regional open space (Matilda Bay Reserve)	Regional open space (Matilda Bay Reserve), Public purposes – university (UWA)
West	Public Road (Hackett Drive), Public purposes – University (UWA), Urban (Fairway), Primary regional road (Mounts Bay Road)	Public purposes – university (UWA), Urban (Fairway), Residential (Nedlands)

4. Environmental setting

This section describes the environmental setting of each Site and surrounds. Information has been sourced from Land Insight (2025) unless otherwise identified. Mapping is provided in Appendix B (Land Insight, 2025).

4.1 Climate

The climate of the Perth region is described as Mediterranean, with hot dry summers and mild wet winters. Based on a search of the climate data available from the Bureau of Meteorology (BoM) database in April 2025, the closest weather station to the Sites with long-term data available is Perth Metro station (Station No. 009225). Climatic data collected between 1994 and 2025 from this station reports the mean maximum temperature is 24.9°C, the mean minimum temperature is 13°C and the mean annual rainfall is 719.0 mm (BoM, 2025).

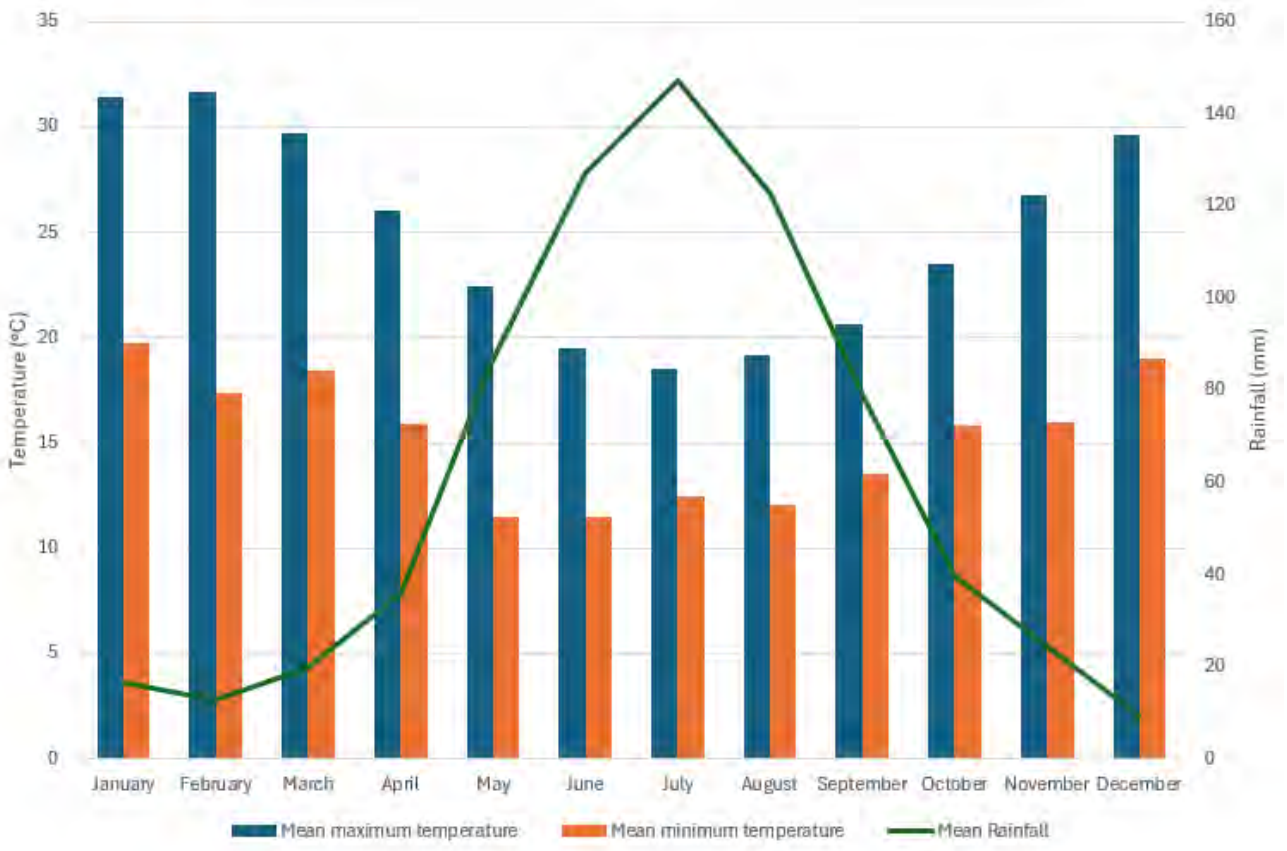

Figure 2 Climate data Perth Metro (009225) 1994-2025

4.2 Topography

Site 1

The topography of Site 1 is approximately 6 m Australian Height Datum (AHD) in the western portion sloping down towards the eastern portion (2 m AHD) before becoming level with surface water, which is likely above 0 m AHD. During the Site inspection a vertical drop of 0.5 to 1 m was observed when transitioning from the grassed Matilda Bay Reserve to the foreshore.

Site 2

The topography of Site 2 is approximately 5 m AHD in the western portion of the Site (UWA and Hacket Drvie) sloping down towards the eastern portion (2 m AHD) (Matilda Bay Reserve) before becoming level with surface

water, which is likely above 0 m AHD. The majority of the decrease in surface level occurred in the 2 m closest to the foreshore.

4.3 Geology

Site 1 and Site 2

Based on geological maps (Baxter *et al.*, 1978) the underlying geology of the Site and surrounding area is Quaternary aged alluvium (clay, sand and loam) and Tertiary aged ferruginous grit and sandstone (which is associated with drainage channels).

The soil mapping for the Site (Land Insight, 2025) is described as *SAND - pale grey to white, medium-grained sub-angular, quartz and feldspar, well sorted, abundant whole and broken bivalves and gastropod shells, of alluvial origin* which is consistent with the underlying geology. The NW portion of Site 1 contains a small road and the western portion of Site 2 contains UWA footpaths, parking and Hackett Drive. These portions of Site 1 and Site 2 are covered with bitumen / concrete and likely have fill associated with construction and road works (e.g. hardstand).

4.4 Acid sulfate soils

Site 1 and Site 2

The Swan Coastal Plain Acid Sulfate Soils (ASS) mapping (Land Insight, 2025) indicates the landside (western) portion of both Sites moderate to low risk of ASS occurring within three metres of natural soil surface. The eastern portion of both Sites (Swan River/Matilda Bay) is mapped as having a high to moderate risk of ASS occurring within three metres of natural soil surface.

The national mapping (CSIRO, 2024) indicates a high probability of ASS occurrence (such as Potential ASS). This probability extends >100 m from both Sites in every direction. Although the potential for Monosulfidic Black Ooze (MBO) is not mapped the potential for it to accumulate in sediments within Matilda Bay cannot be precluded as it is known to accumulate in the basal sediments of tidally affected estuaries and rivers (such as the Swan River) (Sullivan 2018).

4.5 Hydrogeology

Site 1 and Site 2

The Site overlays the Perth Groundwater Area within the Perth North Confined subarea over three aquifers (DWER Water Register[10]):

– Perth – Superficial Swan.
– Perth – Leederville.
– Perth – Yarragadee North.

The aquifers are described as porous, extensive highly productive aquifers. Groundwater levels are generally between 1 – 3 m below ground level (m bgl) at the site with regional groundwater contours sloping down from the west (beneath the UWA) to east closer to the Swan River (DWER, 2025a). Inferred groundwater flow is anticipated to be west to east, towards the Swan River, regionally and within each Site.

The groundwater is mapped as not saline (Total Dissolved Solids [TDS] <3000 mg/L) with a TDS ranging between 500 and 1000 mg/L.

[10] https://maps.water.wa.gov.au/#/webmap/register, Accessed 29 April 2025

4.6 Wetlands

Site 1 and Site 2

The are no wetlands located at either Site. However, both sites are located within the Swan Canning Riverpark and Swan-Canning Estuary (eastern portion of both sites). A further three biologically important areas are located within the Swan Canning Riverpark and form the Swan River Estuary Marine Park and are outlined below:

– Alfred Cove, 200 hectares adjacent to the suburbs of Attadale and Applecross.
– Pelican Point, a 45-hectare area in Crawley locate approximately 650 m south of Site 2.
– Milyu, 95 hectares adjacent to the Como foreshore.

There are no Ramsar wetlands listed within 2 km of either Site however, the Swan-Canning Estuary is mapped as a Nationally Important Wetland. According to the Protected Matters Search Tool (PMST) search completed in April 2025, there are no other Nationally Important Wetlands within 2 km.

4.7 Hydrology and drainage

Site 1 and Site 2

Stormwater drains were observed with the sealed areas in the western portion of Site 2 (UWA, parking lots and Hackett Drive) and adjacent (west) of Site 2. During the site inspection stormwater drainage discharge points were observed within the foreshore area of Site 1 and Site 2. Therefore, surface water runoff from the sealed portions of the Site and surrounds appears to discharge int the Swan River. Surface water within the Matilda Bay Reserve is expected to be directed from west to east towards the Swan River following the Site topography. However, the Matilda Bay Reserve is grassed public open space and therefore, some surface water runoff is anticipated infiltrate into the soil through the unsealed surfaces (grass).

According to DBCA (2025b) a range of factors have the potential to impact on the water quality and, subsequently, ecological and human health:

– Excess nutrients (phosphorus and nitrogen) and organic loading enter the Swan Canning river system through groundwater, drainage and catchment runoff. These promote algal blooms and low oxygen conditions, which in turn places stress on fish and other aquatic life and can contribute to fish kills.
– Contaminants such as heavy metals, pesticides and herbicides enter the waterway via the drainage network. These can be directly toxic to organisms, affect life cycles and enter the food chain. Additionally, development work has potential to disturb ASS which can also mobilise heavy metals.
– Water borne pathogens which mostly enter the river system in the form of human or animal faeces (stormwater runoff, sewage pump station malfunctions, boating waste, malfunctioning septic tanks and farming activities). Salinity, sunlight, tidal movement, vegetation and microbial processes, wind and wave action all influence the levels of pathogens in the water.

DBCA monitoring reported water quality at Heathcote (within between 2.4 and 2.6 km of the Sites) to be saline (40,000 mg/L), well oxygenated (7 mg/L), low chlorophyll fluorescence (20 µg/L) and approximately 20°C (DBCA, 2025c). It is anticipated that surface water either infiltrates into Matilda Bay Reserve, runs into the Swan River or in hardstand areas is directed into road drainage systems and then into the Swan River via discharge points observed during the site inspection (Section 6).

The Swan River converges with the Canning River approximately 3.5 km south-east of the Site and forms the lower reaches of the Swan Canning estuary, where tidal forces and marine salinity can be detected (DBCA, 2025b).

4.8 Enivronmental value - groundwater

4.8.1 Groundwater protection areas

Site 1 and Site 2

Neither Site is mapped as a Public Drinking Water Source Area (DWER, 2025a). The nearest PDWSA is the priority 3 (urban area) Perth Coastal and Gwelup Underground Water Pollution Control Area located 8.5 km north of Site 1 (DWER, 2025b).

4.8.2 Licensed abstractions

The closest licenced groundwater abstraction bore is 44 m west of Site 1 (Bore ID 61605299 for the UWA). The closest licenced groundwater abstraction bore to Site 2 is 75 m north (63 m south of Site 1) (Bore ID: 61671740 for the DBCA). Based on the area covered by these licences (Licence 153733 and 66804 respectively), they are likely for irrigation purposes. The DBCA representative indicated during the site inspection that bore water (ground water) was used for irrigation on both Sites (Section 6).

According to the Land Insight report and DWER Water Register (DWER, 2025c), groundwater within the region is fully allocated. There are no licensed abstraction bores mapped as occurring on the Site. Eight groundwater abstraction licences were observed within a 500 m radius of both Sites including two partially located on both Sites (License ID 66804). These groundwater licences have been summarised in Table 3.

Table 3 Groundwater licences within a 500 m radius of the Sites

Licence ID	Map ID	Parties	Licence allocation	Aquifer	Distance (m) and direction from Site
Site 1 and Site 2					
207292	8560	Department of Biodiversity, Conservation and Attractions	81750 KL	Perth - Superficial Swan	0.0 Onsite
153733	1267	University of Western Australia	257100 KL	Perth - Superficial Swan	0.0 Onsite
207882	8768	University of Western Australia	19500 KL	Perth - Superficial Swan	184.0 North-west
151382	822	University of Western Australia	16500 KL	Perth - Superficial Swan	185.5 North-east
61458	11547	Botanic Gardens & Parks Authority	580700 KL	Perth - Superficial Swan	349.4 North
155104	1439	City of Perth	239400 KL	Perth - Superficial Swan	349.4 North
183189	5851	City of Perth	45704 KL	Perth - Superficial Swan	450.1 West
110235	514	Trinity College	15000 KL	Perth - Superficial Swan	457.9 West

4.8.3 Registered bores

Land Insight reviewed the DWER Water Information Reporting (WIR) database (DWER, 2025b) for groundwater boreholes located within a 2 km radius of the Site (DWER, 2024c). Of 246 registered bores, 9 registered bores are located within 500 m of the Site as summarised in Table 4 below.

Inferred groundwater flow is east towards the Swan River and the Ocean.

Table 4 Registered groundwater bores within a 500 m radius of the Site 1 and Site 2

WA Bore ID	Year drilled	Depth drilled (m bgl)	Water level (m bgl)	Type	Agency	Distance (m) and direction from Site
61605299	1967	12.2	Null	-	University of Western Australia	44.1 west
61671740	2002	36.0	Null	-	Department of Biodiversity, Conservation and Attractions	71.1 south
61606683	1987	36.0	4.8	-	University of Western Australia	117.1 west
61606272	1978	5.5	2.4	-	City of Perth	306.0 north
61671787	2002	54.0	Null	-	City of Perth	338.9 north
61616313	Null	Null	Null	Stock and Domestic	Botanic Gardens & Parks Authority	414.1 north
61605474	1960	34.1	11.6	Irrigation	Botanic Gardens & Parks Authority	422.9 north
61671842	2000	20.5	Null	-	Botanic Gardens & Parks Authority	430.0 north-east
61610118	Null	Null	1.8	Monitoring	University of Western Australia	430.7 south-west

4.8.4 Unregistered bores

Site 1 and Site 2

According to Perth Groundwater Map (DWER, 2025a) the surrounding region (areas within approximately 300 m of the Swan River) are registered as ‘unsuitable for garden bores’ and as such, groundwater is unlikely to be abstracted for drinking water or for other non-potable uses such as gardening.

4.8.5 Groundwater dependent ecosystems

Site 1 and Site 2

There are no potential groundwater dependent ecosystems (GDE) mapped as occurring on the Site (Land Insight, 2025). There is high potential for aquatic GDE to occur approximately 1367 m east of the Site. There are three areas with a potential for terrestrial GDE to occur within 500 m of both Sites.

Table 5 Groundwater dependent ecosystems

Potential	Distance (m) and direction from Site	Association
Terrestrial GDEs		
Low	349.6 north	Kings Park
Moderate	368.6 north-west	
High	597.7 south	Pelican Point Conservation Area
Aquatic GDEs		
High	1367.3 east	Swan River

4.9 Environmental value – surface water

The eastern portion of each Site is located within the Swan River which has a number of beneficial recreational and commercial uses. The key beneficial uses of the Swan River near the Site (<500 m) are noted below.

– North-east of Site 1 is the Water Sport Complex, the UWA Boat Club and Perth Dinghy Sailing Club West which are used for recreational boating.
– The area south of Site 2 are the Matilda Bay Pontoons (floating) (150 m) and Royal Perth Yacht Club (500 m) which is used for commercial and recreational sailing.

Both Sites are also situated within the Swan Canning Riverpark which is comprised of river reserve and adjoining public land along the Swan River. In the Interpretive Plan for the Swan and Canning Riverpark (National Trust of Australia, 2014) Matilda Bay/Pelican Park were identified as an important node within the Swan Canning Riverpark for environmental, Aboriginal (water source, campsite and fish increase site) and historic themes (parkland, river use and UWA).

Regionally, the Swan River comprises part of the Swan Estuary Marine Park (SEMP) and is comprised of three biologically important areas along Perth's Swan River:

– Alfred Cove, 200 hectares adjacent to the suburbs of Attadale and Applecross.
– Pelican Point, a 45-hectare area in Crawley.
– Milyu, 95 hectares adjacent to the Como foreshore.

The closest of these areas to the Site is Pelican Point located approximately 650 m south of the Site. Internationally protected waders visit these three areas every summer (DBCA, 2025[11]). The birds move between the intertidal flats of the three areas of the marine park according to where feeding and roosting sites are available. Most migratory birds are seen from August to the following March. Pelicans, ibis, egrets and other birds also reside in the estuary. The SEMP is also used recreationally for; fishing, boating, wind surfing, snorkelling, scuba diving, kayaking and water skiing.

4.10 Flora and fauna

4.10.1 Vegetation communities

The PMST search completed in April 2025 indicated that two threatened ecological communities (TECs) are likely to occur at both Sites and no additional TECs within a 2 km radius as follows (DCCEEW, 2025):

– Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community
– Banksia Woodlands of the Swan Coastal Plain ecological community

As both sites contain open park land which contain mature age trees and upon review of historical aerials (Section 5.2) appears to be relatively undeveloped since the earliest available aerial (1942) there is a low potential for TECs within both Sites.

4.10.2 Flora

The PMST search completed in April 2025 indicated that 12 listed threatened plants may or are likely to occur at each Site or within a 2 km radius (DCCEEW, 2025).

A search of Dandjoo in April 2025 indicated 426 sightings of plant species (native and introduced) within a 2 km radius of the Site (DBCA, 2025a). Due to proximity with Kings Park to the north, the search was reduced to a 1 km radius (the smallest possible) and reported 183 plants sightings, of which, 1 sighting was of listed plants (Conospermum undulatum Lindl.). Atlas of Living Australia in April 2025, which contains a digitised database of WA Herbarium sightings, did not record any sightings of listed threatened plants within a 1 km radius (ALA, 2025).

With respect to aquatic flora, the Department of Water (2009) identifies mainly phytoplankton, benthic micro- and macroalgae (e.g. phytoplankton), benthic macrophytes and other aquatic plants (e.g. seagrass, eel grass, river reeds), detritus (mainly decomposing plant material) to be present in the Swan-Canning Estuary environment. Benthic macrophytes such as seagrass were noted to be the most important overall food source (Department of Water, 2009). The DBCA (2025b) also advises that the Swan River is widely affected by invasive/introduced

[11] https://exploreparks.dbca.wa.gov.au/park/swan-estuary-marine-park#areas

species (weeds, invasive fish and introduced invertebrates) which present a threat to native species by altering the ecosystem and reducing local biodiversity).

4.10.3 Fauna

Listed fauna

The PMST search completed in April 2025 indicated that 41 listed threatened fauna species may or are likely to occur at the Site or within a 2 km radius (DCCEEW, 2025). These comprise, 31 bird, one insect, three mammal, four reptile (turtles) and two shark species.

A search of Dandjoo in April 2025 indicated 402 sightings of fauna species (native and introduced) within a 2 km radius of the Site. Due to proximity with Kings Park to the north, the search was reduced to a 1 km radius and reported only 173 sightings, of which, 17 sightings were of listed fauna species (DBCA, 2025a).

Listed migratory species

The PMST search completed in April 2025 indicated that 49 listed migratory species may, are likely, or known to occur at the Site or within a 2 km radius (DCCEEW, 2025). Of which, 42 bird (27 are also listed threatened species), four reptiles (also captured in threatened species above), two rays and one shark species.

A search of Dandjoo in April 2025 indicated 16 sightings of migratory species within a 2 km radius of the Site, of which all were bird species (DBCA, 2025a).

Listed marine species

The PMST search completed in April 2025 indicated that 54 listed marine species may, are likely, or known to occur at the Site or within a 2 km radius (DCCEEW, 2025). Of which, 50 bird (46 are also listed threatened and/or migratory species) and four reptile (also captured in threatened and migratory species above) species.

A search of Dandjoo in April 2025 indicated 10 sightings of migratory species within a 2 km radius of the Site, of which all were bird species (DBCA, 2025a).

4.10.4 Significance

Both Sites (landside portions) contain open park land which include mature age trees and upon review of historical aerials (Section 5.2) appear to be relatively undeveloped (other than park land) since the earliest available aerial (1942). Additionally, both Site partial consist of a Class A nature reserve (Matilda Bay Reserve) and are close to Pelican Point, an ecologically important area including tidal flats, there is the potential for threatened plants within both Sites.

It is likely that fauna species, such as birds, may utilise the Site opportunistically as foraging however no species would be reliant on it for breeding or a main food source. There is also potential for turtles, dolphins and sharks to utilise the Swan River area however due to the high anthropogenic use of the Matilda Bay significant presence of these species is unlikely at the Sites.

There is potential for turtles and sharks to utilise the adjacent Swan River however due to the nature of use at north (Water Sports Complex, UWA Boat Club and Perth Dinghy Sailing Club) and south (Royal Perth Sailing Club) of the Site for commercial and recreational activity including high frequency of use by watercraft, access and use of Matilda Bay (including the Site) by such species is unlikely to be significant.

In addition to listed species, other aquatic fauna are identified to inhabit the Swan-Canning Estuary (Department of Water [2009]) and may therefore also access the Site, such as the following:

– Microinvertebrates (e.g. nematodes, copepods), small benthic macroinvertebrates (e.g. gastropods, bivalves), epibenthic macroinvertebrates, (e.g. prawns, crabs), fish, zooplankton (e.g. copepods and larval stages of other invertebrates), surficial fauna (e.g. insects).
– Small fish species, (e.g. hardyheads, gobies), larger fish species (e.g. black bream) and crabs (e.g. blue swimmer crab).

Based on the above, the environmental value of the Sites is acknowledged, however, due to the uses noted above, is considered to be of lesser significance with respect to ecosystem health condition in comparison to the Swan Estuary Marine Park (Pelican Point) to the south-west.

4.11 Heritage

4.11.1 Aboriginal

A search of the ACHIS was undertaken in April 2025 which identified one registered Aboriginal Heritage place within 200 metres of the Site as presented in Table 6.

Table 6 Aboriginal heritage places

Place ID	Place name	Place type	Culturally sensitive?	Restricted place?	Distance and direction from Site
03536	Swan River	Creation / Dreaming Narrative	No	No	Onsite

4.11.2 Other

A search of the Western Australian Heritage Council's Heritage Places Database (inHerit) (GoWA, 2024) revealed seven heritage places are located at the Sites. Additionally, seven State and/or local heritage places are located within a 200 m radius. Four of the onsite heritage places are related to the UWA which would not be affected by the proposed design (Figure 2). All of the offsite heritage places related to buildings within the UWA and will be unaffected by the proposed development. The archaeological site is associated with a homestead/dwelling (1840s) and consists of a 5 m length along the foreshore east of the Site 2 toilet block. A summary is provided in Table 7.

The PMST search undertaken in May 2025 did not identify any commonwealth, world or national heritage sites within a 2 km radius (DCCEEW, 2025). Additionally, the proposed land use post-development of the Site will remain essentially the same as the current land use.

Table 7 Other heritage sites

Place ID	Place name	Place type	Listing	Date listed	Distance (m) from site
24364	UWA Conservation Area	Large Conservation Region	Local	2003	0.0 Onsite
13702	University of Western Australia-Crawley Campus	Individual Building or Group (aesthetic/ historic/social/cultural/educational)	Local	2002	0.0 Onsite
27029	Mounts Bay Road foreshore	Cultural/Aesthetic	Local	2023	0.0 Onsite
9209	Archaeological Site	Archaeological	Local	2005	0.0 Onsite
3965	University Boat Club	Social/Recreational	Local	2023	0.0 Onsite
4574	Law School	Individual Building or Group	Local	2002	0.0 North
4484	University of Western Australia Campus Gardens	Garden (aesthetic/historical/ social)	Local	1980	0.0 West
24341	UWA Music Department	Individual Building or Group (education/social)	Local	2002	0.2 West
2457	Shenton House	Individual Building or Group (Cultural)	State and local	1998	32.3 West
					52.0 South-west

Place ID	Place name	Place type	Listing	Date listed	Distance (m) from site
4573	Octagon Theatre	Individual Building or Group (social/recreational)	Local	2003	52.0 South-west
3237	St Georges College inc Cork Oak Tree	Individual Building or Group (aesthetic/social, historical/cultural)	State and local	1985	118.6 West
					143.0 North
4534	Reid Library	Individual Building or Group (historic/social)	Local	1995	143.0 North
3863	Old Pharmacology Building	Individual Building or Group (historic/social)	Local	1998	160.2 West
3519	Hackett Memorial Buildings (University of Western Australia, UWA)	Individual Building or Group (Cultural)	State and local	1994	179.5 South
					199.3 West

4.12 Natural hazards

4.12.1 Bushfire

Neither Site is mapped within a bushfire prone area. One bushfire prone area (Type 1) was identified within 500 m of the site associated with Kings Park (250 m north of the Sites). However, both Sites are located outside the 100 m buffer zone of the bushfire prone area and although most of each Site is vegetated, given their proximity to water and lack of plant litter neither Site unlikely to be prone to wildfires.

4.12.2 Flooding

Both Sites are mapped within a flood prone area for flood events, 1 in 10 year and 1 in 100 year floods (Land Insight, 2025). As such, in storm surges (creating higher tides) or extreme rainfall, the Site may be prone to flooding. Additionally, the eastern portion of each site (beached area) is classified as a flood plain. This mapping indicates that, in storm surges (creating higher tides) or extreme rainfall, the Site may be prone to flooding. This mapping is based on derived (not historical) risk from proximity to the Swan River.

Both Sites are mapped as having a moderate wind erosion risk and negligible water erosion risk (Land Insight, 2025). Based on the site inspection (Section 6) there is a risk of erosion from water at the Sites particularly within Site 1.

5. Site history

5.1 Site ownership

A summary of the historical ownership of each lot comprising the Site is provided in Table 8 below. Historical Certificate of Title and ownership documents are provided in Appendix E. GHD also note that a number of easements relating to services within the northern portion of Site 1 (Lot 13177 and Lot 11298) as noted below;

– 20.11.2018 (O033040): Easement to electricity networks corporation for electricity supply purpose.
– 05.12.2018 (O045120): Easement to conservation and land management executor body for access purposes.
– 27.11.2020 (O567357): Easement to water corporation for pressure main purposes.
– 27.11.2020 (O567358): Easement to water corporation for stormwater drainage purposes.
– 05.12.2018 (O045120): Easement to conservation and land management executor body for access purposes

Table 8 Historical site ownership

Date of Acquisition and term held	Registered proprietor and occupants (where available)	Title refenced at acquisition/sale
Current - Lot 13177 on Plan 189686		
28 September 1990	Notification of closure of portion of Hackett Drive.	– Government Gazette published 28 September 1990 Folios 5001 & 5002
22 March 1991	Re Gazettal of Declaration of closure of portion of Hackett Drive.	– Government Gazette published 22 March 1991 Folio 1226
29 February 2000 (2000 to Date)	The State of Western Australia – Addition to Crown Reserve No. 17331 – Site for Main Buildings of the University of Western Australia – Crown Lease 1455/1921 (Lease No. 652/42) registered 11 August 1921 to University of Western Australia for 999 Years (Now Cancelled)	– Government Gazette published 31 October 1919 Folio 1929 **Now** – Volume 3112 Folio 303 (Crown Land Record)
Current – Lot 11298 on Plan 189686		
31 August 1979	Crown Reserve No. 36225 for Pipeline	– Government Gazette published 31.08.1979 Folio 2620
28 September 1990	Notification of closure of portion of Hackett Drive.	– Government Gazette published 28.09.1990 Folios 5001 & 5002
22 March 1991	Re Gazettal of Declaration of closure of portion of Hackett Drive.	– Government Gazette published 22.03.1991 Folio 1226
31 August 1979	The State of Western Australia – Crown Reserve No. 36225 for Pipeline – Various Vesting Orders from 1979 to 1998 – Vesting Management Order to Water corporation dated 11.11.1998	– Volume 3048 Folio 146 (Crown Land Record); then – Volume 3000 Folio 584 (Crown Land Record) **Now** – Volume 3140 Folio 662 (Crown Land Record)
Current – Lot 14555 on Plan 032409		
23 January 1920	Crown Reserve No. 17375 for Recreation	– Government Gazette published 23 January 1920 Folio 142
23 January 1920 (1920 to Date)	The State of Western Australia – DBCA SCLM – Crown Reserve No. 17375 for Recreation	– Government Gazette published 23 January 1920 Folio 142; then

Date of Acquisition and term held	Registered proprietor and occupants (where available)	Title refenced at acquisition/sale
	– Vesting Management Order to Conservation Commission of Western Australia dated 17 December 2002	– Volume 3102 Folio 912 (Crown Land Record) **Now** – Volume 3128 Folio 401 (Crown Land Record)
Current – Lot 300 on Plan 047450		
To Date	The State of Western Australia – Department of Biodiversity, Conservation and Attractions (SCLM) – Crown Reserve No. 48325 for the Purpose of Protection and Enhancement of the Ecological and Community Benefits and Amenity of the Wean and Canning Rivers – Vesting Management Order to Swan River Trust dated 28 July 2008	Volume 3151 Folio 547 (Crown Land Record)
Current – Lot 10605 on Plan 186614		
23 January 1920	Crown Reserve No. 17375 for Recreation	Government Gazette published 23.01.1920 Folio 142
3 May 1985 (1985 to Date)	The State of Western Australia – Crown Reserve No. 39045 for the Purpose of Parking – Vesting Management Order to City of Subiaco (Government Gazette published 3 May 1985 Folios 1516 & 1517)	– Government Gazette published 03.05.1985 Folio 1543 **Now** – Volume 3147 Folio 25 (Crown Land Record)
Current – Lot 2885 on Plan 230371 and Lot 11627 on Plan 218241		
31 October 1919 (1919 to Date)	The State of Western Australia – Crown Reserve No. 17331 – Site for Main Buildings of the University of Western Australia – Crown Lease 1455/1921 (Lease No. 652/42) registered 11 August 1921 to University of Western Australia for 999 Years (Now Cancelled)	– Government Gazette published 31.10.1919 Folio 1929; then – Volume 3044 Folio 406 (Crown Land Record); then – Volume 3000 Folio 117 (Crown Land Record); then – Volume 3053 Folio 626 (Crown Land Record) **Now** – Volume 3143 Folio 31 (Crown Land Record)

5.2 Historical aerial photography

A selection of available aerial photographs sourced from Land Insight (LI-4719 DDR) were reviewed to ascertain the development history of the Sites and previous land uses which may have potentially caused contamination. It is noted that the historical imagery is not perfectly georeferenced, and the location of each Site has been inferred or adjusted slightly using surrounding defining features (such as roads). The earliest historical aerials reviewed for the Sites were taken in 1942, the most recent were taken in 2025.

A summary of the reviewed photographs is provided in Table 9 and imagery from Land Insight (2025) is provided in Appendix F. Based on a review of the historical aerial photography, the Sites have had the following land uses:

Site 1

– 1942 to current: Recreational public open space (Matilda Bay Reserve).

Site 2

– 1942 to circa 1983: Recreational public open space (Matilda Bay Reserve), road and a grassed portion of UWA.
– 1983 to current: Recreational public open space (Matilda Bay Reserve), road and a portion of UWA (carpark).

Table 9 Historical imagery review

Year	On-site	Off-site
1942	**Site 1** The western portion of the site comprises a grassed area with small trees present throughout. A narrow beached area (foreshore) and the Matilda Bay (Swan River) are within the eastern portion of the site. An unsealed foot path/track is observed running north-south through the grassed portion of the site.	**Site 1** **North:** Adjacent to the Site is a small boat shed and ramp (UWA Boat Club). A small structure is located ~50 north adjacent to a road in a similar position to the current Hackett Drive. North of this is a major road running east to west (Mounts Bay Road), uncleared bush land (Kings Park) and a residential building with forecourt (St. George's College). **East:** Swan River. **South:** The grassed area, foreshore and footpath continue. A series of five raised square areas (potential market gardens) are observed. One building is observed immediately west of the potential market gardens. Site 2 is located south of Site 1. Boats are present in the water of the Swan River. **West:** Further grassed and treed area, followed by a sealed road, then gardens, ovals, partially cleared bushland and buildings associated with the UWA.
	Site 2 The western portion of the Site comprises a grassed area with small trees and a road (Hackett Drive) running north-south through the Site. A narrow beached area (foreshore) and the Matilda Bay (Swan River) within the eastern portion of the site. An unsealed foot path/track is observed running north to south through the grassed portion of the site west of the foreshore. Boats are observed on the water of the Matilda Bay.	**Site 2** **North:** The grassed area, road, foreshore and footpath continue. A series of five raised square areas (potential market gardens) are observed. One building is observed immediately west of the potential market gardens. Site 1 is located north of Site 2. **East:** Swan River. **South:** The grassed area, road, foreshore and footpath continue. A large building is observed on the foreshore ~100 m south of the site. Two smaller structures (potential sheds) are observed ~150 m and ~200 m south of the site. **West:** Gardens, ovals, partially cleared bushland and structures associated with the UWA.
1953	**Site 1** Consistent with previous imagery.	**Site 1** **North:** A small building is being constructed near the foreshore ~ 50 north of the Site. Buildings associated have been constructed north of Mounts Bay Road. **East:** Consistent with previous imagery. **South:** A second building appears to have been constructed adjacent to the potential market gardens. Otherwise, consistent with previous imagery. **West:** Further clearing (for ovals) and construction of few buildings associated with the UWA.
	Site 2 Consistent with previous imagery	**Site 2** **North:** A second building appears to have been constructed adjacent to the potential market gardens. Otherwise, consistent with previous imagery. **East:** Consistent with previous imagery. **South:** A jetty has been constructed from the large building observed in the previous imagery. An additional structure, either a circular pavilion or water tank, has been constructed. A second smaller building is observed ~ 60 m south of the Site. Unsealed tracks associated with these two structures are observed. Boats and part of a jetty (Perth Royal Yacht Club) are observed ~ 400 m south of the site.

Year	On-site	Off-site
		West: Further clearing (for ovals) and construction of few buildings associated with the UWA.
1965	**Site 1** Consistent with previous imagery	**Site 1** **North:** Further development (University Hall, St Georges and St. Thomas) north of Mounts Bay Road. The structure observed in the previous image has been constructed (Perth Dinghy Club). A second building has been constructed ~100 m north of the Site. **East:** Consistent with previous imagery. **South:** The potential market gardens and associated buildings have been removed and now appear to be grassed. A grassed and treed area, with foreshore is now observed. Cars appear to be parked along the road within the grassed area. **West:** Significant construction of educational buildings, gardens and ovals for the UWA is observed.
	Site 2 A building (potential toilet block) has been constructed in the northern portion of the site next to the road running north to south. Cars appear to be parked on the western portion of the grassed area along the road running north to south.	**Site 2:** **North:** The potential market gardens and associated buildings have been removed and now appear to be grassed. A grassed and treed area, with foreshore is now observed. Cars appear to be parked along the road within the grassed area. **East:** Consistent with previous imagery. **South:** Two additional jetties have been constructed ~120 m and ~140 m south of the Site. Cars are parked within the grassed area around the buildings. A small building is observed in the grassed area ~ 240 m south of the site. **West:** Significant construction of educational buildings, gardens and ovals for the UWA is observed.
1975*	**Site 1** The site has a small, sealed road in the northern portion of the site. Otherwise, consistent with previous imager.	**Site 1:** **North:** The road running east to west (Mounts Bay Road) has been expanded with additional lanes. North of the road additional significant construction has occurred in the area north of Mounts Bay Road. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** The road running north-south past the site has been expanded to include additional lanes. Significant construction of buildings associated with the UWA.
	Site 2 The road running north to south through the site has been expanded to include additional lanes. Construction of a UWA building has been completed on the western site boundary.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** The structure ~100 m south of the Site and associated jetty on the foreshore has been demolished **West:** The road running north-south past the site has been expanded to include additional lanes. Significant construction of buildings associated with the UWA.
1983	**Site 1** The north-west portion of the site appears to have been cleared. Otherwise, consistent with previous imagery.	**Site 1:** **North:** Clearing has occurred between the site boundary and Mounts Bay Road to the North for parking. The surface appears to be bitumen. North of the road some construction has occurred associated with the expansion of the UWA accommodation. **East:** Consistent with previous imagery.

Year	On-site	Off-site
		South: Consistent with previous imagery. **West:** Significant construction of educational buildings, gardens and ovals for the UWA is observed.
	Site 2 A carpark has been constructed west of the Hackett Drive adjacent to the UWA buildings and east of Hacket Drive adjacent to the grassed area. A small jetty is observed in the north-east portion of the site along the foreshore.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** The jetties south (~450 m) of the site have been expanded. There are significant amount of boats observed at the jetties and in the surrounding water. A small building has been constructed ~120 m south of the site within the grassed area. **West:** Significant construction of educational buildings, gardens and ovals for the UWA is observed.
1995	**Site 1** A concrete footpath has been constructed parallel to Hacket Drive along the western portion of the site. Otherwise consistent with previous imagery.	**Site 1:** **North:** Some construction and demolition has occurred north of Mounts Bay Road with the UWA accommodations. **East:** Consistent with previous imagery. **South:** The concrete footpath continues south. Otherwise consistent with previous imagery. **West:** Generally consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North**: Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** The large jetties south of the site (~450 m) have been further expanded. **West:** Generally consistent with previous imagery.
2003	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Minor construction works north of Mounts Bay Road. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2008	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** A building (Water Sports Complex) has been constructed immediately north of the site. Otherwise, consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Additional car parks have been constructed east of Hackett Drive. An additional jetty has been constructed south of the site.

Year	On-site	Off-site
		West: Consistent with previous imagery.
2009	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2011	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Additional jetties constructed ~450 m south of site. Consistent with previous imagery. **West:** Consistent with previous imagery.
2013	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2015	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2017	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** The carpark between the site and Mounts Bay Road has been removed. Within that area construction of a large commercial building is being completed. **East:** Consistent with previous imagery. **South:** What appears to be a temporary pavilion is observed on the grassed area south of the site near

Year	On-site	Off-site
		the foreshore. Otherwise, consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** What appears to be a temporary pavilion is observed on the grassed area south of the site near the foreshore. Otherwise, consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2019	**Site 1** Cable gate and electrical service boxes are observed within the north-west portion of the site. Otherwise, consistent with previous imagery.	**Site 1:** **North:** Construction of the building in the previous imagery has been completed. The area now comprises the commercial building and an associated carpark. **East:** Consistent with previous imagery. **South:** The temporary pavilion has been removed. Otherwise consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** The temporary pavilion has been removed. Otherwise consistent with previous imagery. **East:** Consistent with previous imagery. **South:** A UWA building ~300 m south of the site has been demolished. Otherwise consistent with previous imagery. **West:** Consistent with previous imagery.
2021	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** The carpark north of the site and south of Mounts Bay Road has been demolished and replaced with further commercial buildings. **East:** Consistent with previous imagery. **South:** The temporary pavilion has been removed. Otherwise consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** The temporary pavilion has been removed. Otherwise consistent with previous imagery. **East:** Consistent with previous imagery. **South:** The demolished UWA building ~300 m south of the site has been replaced with a new building and lawned area. Otherwise, consistent with previous imagery. **West:** Consistent with previous imagery.
2023	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.

Year	On-site	Off-site
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
2025	**Site 1** Consistent with previous imagery.	**Site 1:** **North:** Consistent with previous imagery **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
	Site 2 Consistent with previous imagery.	**Site 2:** **North:** Consistent with previous imagery. **East:** Consistent with previous imagery. **South:** Consistent with previous imagery. **West:** Consistent with previous imagery.
*indicates georeferencing error and location inferred from roadways.		

5.3 DWER contaminated sites database

Land Insight completed a search of the DWER Contaminated Sites Database which identified no listed contaminated land parcels within the Site boundary and six listed contaminated sites within a 1 km radius, all of which are *Remediated for restricted use* (RRU) (Land Insight, 2025). Refer to mapping provided in Appendix B and Basic Summary of Records (BSR) in Appendix G.

GHD note that searches of the DWER Contaminated Sites Database only show sites classified as *Contaminated – remediation required, Contaminated – restricted use* and *Remediated for restricted use*.

Two[12] of the six sites are associated with military accommodation, and Asbestos Containing Materials (ACM) used during building construction north of Mounts Bay Road. The buildings were demolished in the late 1960's and are now located beneath UWA accommodation buildings (University Hall and St. Thomas More College). ACM is known to be present at a depth of 0.5 m bgl across the site. The proposed works will not disturb soils beneath these areas.

The remaining four sites[13] are classified due to hydrocarbon (such as petrol or diesel) impacts in groundwater and/or soil beneath a former service station approximately 750 m west of the Site 1 (Nedlands Ampol). These impacts are associated with an Underground Storage Tank (UST). Off-site groundwater monitoring completed in 2020-2021 found hydrocarbon concentration above non-potable groundwater criteria (DWER 2021) but below commercial/industrial guidelines for vapour intrusion (NEPM 2013). Given the distance from the Sites and low concentrations in off-site groundwater monitoring, these hydrocarbon impacts are not considered likely to affect soil or waters (surface and ground) at either Site.

5.4 Review of council records

A FOI request to the City of Perth has been submitted in relation of any complaints regarding odour and water quality or environmental incident reports and flood management planning. A response from the City of Perth indicated that no records existed and/ or in the possession of the City of Perth for the date range 1 January 2024 to 15 May 2025.

Furthermore, no complaints register was available on the City of Perth website.

[12] Lot 5 on Diagram 9045 and Lot 3732 on Plan 205170.
[13] Lot 2 on Diagram 27549, Lot 66 on Diagram 27540, Lot 3 on Diagram 27540 and Lot 888 on Plan 76389.

5.5 Freedom of information searches

A FOI request for dangerous goods for the Site was submitted to the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) and DWER on 16 April 2025. Results of the searches are provided in Appendix G and Appendix H.

A response was received from DWER on 6 May 2025 which indicated the presence of a site classified as *Possibly contaminated – investigation required* (PCIR) located approximately 470 m south-east of the Sites. Further details are provided in Table 10 below.

Table 10 DWER FOI Response

Address	4 Australia II Drive, Crawley
Common name	Royal Perth Yacht Club
Lot on plan	Part of Lot 14555 on Plan 32409
Classification	Possibly contaminated – investigation required (PCIR)
Date of classification	20/07/2010
Nature and extent of contamination	Antifouling agents have been identified in river sediments in the vicinity of the boat ramp, jetties and moorings.
Reasons for classification	This site was originally reported to the Department of Environment and Conservation (DEC) in May 2007 and prior to the commencement of the 'Contaminated Sites Act 2003', and was reported again in June 2007, as per reporting obligations under section 11 of the Act. The site classification is based on technical information submitted DEC by April 2008. The site was reported because a series of contamination assessments, undertaken between 2006 and 2007, found river sediments to be impacted by antifouling agents (such as those found in marine vessel antifouling paints) from slipway maintenance of boats and vessels. This site operates as a yacht club and includes boat pens for vessels, jetties, a slipway, cleaning berths, a club house, workshop and fuel storage and re-fuelling facilities. This is a land use that is similar to that described as 'boat building and maintenance', specified in the guideline 'Potentially Contaminating Activities, Industries and Landuses' (Department of Environment, 2004). Sediment laboratory analysis for metals, including organotins, detected concentrations of tributyltin (TBT), and copper in exceedance of 'Interim Sediment Quality Guidelines - High (ISQG-High)' trigger values as published within 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010) and 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality' (ANZECC and ARMCANZ, 2000). Dithiocarbamates and Chlorothalonil (fungicides used in the manufacture of antifouling marine paints), Irgarol 1051 and Diuron (herbicide) were detected in sediments in proximity to the Royal Perth Yacht Club. Further and complimentary investigations conducted in May 2007, detected tributyltin in sediments in exceedance of 'Interim Sediment Quality Guidelines - Low (ISQG-Low) and High (ISQG-High)' trigger values as published within 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010). Exceedences of ISQG-High trigger values indicates that further investigations are required to assess the bioavailability of these contaminants and determine whether they pose a risk to human health, the environment or any environmental value. Samples of surface water taken from adjacent to the Yacht Club as part of Department of Water investigations, detected tributyltin, copper and zinc at concentrations exceeding Aquatic Ecosystems Marine Water Guidelines, as published in 'Assessment Levels for Soil, Sediment and Water' (DEC, 2010). Concentrations of copper and zinc also exceeded Aquatic Ecosystems Fresh Water Guidelines. Elevated concentrations of the herbicide diuron were also detected. Soil and groundwater investigations have not been conducted at the site and the quality of soils and groundwater at the site is not known. Mussels sampled from the site and subject to tissue analysis identified elevated concentrations of butyltins (tributyltin, dibutyltin and monobutyltin), zinc and copper. The investigations carried out were limited and do not meet the standard required as outlined in the DEC "Contaminated Sites Management Series" of guidelines and further works are required to characterise impacts at the and risk to ecology.

5.6 Other contaminating or hazardous activities

No other potential hazard sources were identified on Site 1. However, the UWA Crawley Campus which forms part of Site 2 (and is ~50 m west of Site 1) was identified by Land Insight (2025)[14] the as potentially contaminating. The UWA Crawley Campus has identified as a potential hazard due to it's primary use for "Higher Education" and the activities (such as laboratories and research) associated with that use.

Additionally, the former Nedlands Ampol (approximately 750 west of Site 1) was identified as a potential contaminating source of hydrocarbons due it's use as a service station. Groundwater beneath the site and three adjacent lots (Lot 3 on Diagram 27540, Lot 66 on Diagram 27540 and Lot 2 on Diagram 27540) has been monitored (2001 to 2021), the site is subject to ongoing monitoring and the original service station infrastructure (source) was removed when the station was upgraded in 2000. Therefore, it was considered unlikely that these hydrocarbon impacts will affect either Site.

There are known ambient PFAS concentrations in surface water and groundwater across the Perth metropolitan area, due to urban land uses, which includes the Site (Richmond, 2022). In surface water (collected from urban lakes), the three most-commonly detected PFAS compounds were perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexane sulfonate (PFHxS) (Richmond, 2022). The median PFOS concentration for sampling sites located on the Swan Coastal Plain was 0.005 µg/L and tended to be higher in catchments with industrial or commercial land uses (Richmond, 2022). In the surface water of the Swan Canning Estuary (i.e. within the Swan River), PFAS were detected above the 99% species protection limit (mostly PFOS, PFOA and PFHxS) (Novak and Hoeksema, 2022). Novak and Hoeksema (2022) noted that total PFAS concentrations were consistently higher for the middle Swan Estuary (where the Site is located) and lowest in the Lower Swan Canning Estuary (downstream of the Site), likely due to mixing and dilution effects.

PFAS compounds in groundwater were noted to be lower than those in surface water at 91% of locations reporting above the laboratory limit of reporting and median PFOS concentrations of 0.0027 µg/L in autumn and 0.0054 µg/L in spring (Richmond, 2022).

PFAS compounds were detected in black bream and blue swimmer crab specimens collected from the Swan Canning Estuary (Novak and Hoeksema, 2022). PFAS accumulates in aquatic biota and transfer through the food chain in varying levels and difficult to determine on potential impact of the observed concentrations of PFAS in water and biota on higher order consumers, such as humans (Novak and Hoeksema, 2022). Novak and Hoeksema (2022) noted that the consumption of fish and crabs presents minimal risk to human health based on current data.

Richmond (2022) indicated that there is no unacceptable risk to human health from ambient concentrations of PFAS in surface water or groundwater. As such, the groundwater and surface water at the Site and surrounds (including the Swan River Estuary) is anticipated to contain low levels of PFAS but not at levels which pose an unacceptable risk to human or ecological receptors. Given that the proposed development is generally consistent with current land-use, it is considered unlikely that the proposed development would significantly change these conditions.

5.7 Underground services

The Before You Dig Australia (BYDA) and indicated that an abandoned gas pipes and meters may be present on the western edge of the Site (along Hackett Drive). Plans also indicate Western Power and internet conduits are planned to be present between below Hackett Drive and the UWA carpark (NBN). Water drainage plans indicate that drainage follows Hackett Drive with two pipes (and expected discharge points) running from west to east across Site 2 (one in the north and one in the south) into the Swan River.

Sewers (Water Corporation) are shown to run beneath Hackett Drive with two present running east to west across Site 1. One of these appears to terminate in at the Water Sports Complex restroom. A reticulation system was noted within the grassed area between during the site inspection and interview.

A Before-You-Dig-Australia (BDYA) search was undertaken on 22 April 2025 for each Site. Responses were received from the following authorities due to having services within the BYDA search area (on or near the Sites).

[14] Via the National Pollutant Inventory (NPI)

- Atco Gas, an abandoned and PVC distribution pipeline along Hackett Drive and within the road in the north-west corner of Site 1.
- City of Perth, drainage pits were mapped along Hackett Drive and the Hackett Drive car park (Site 2). Drainage pipes were observed connecting the drainage pits a two are shown to run east-west across the northern and southern ends of the Matilda Bay Reserve within Site 2. Likely discharging into the Swan River as observed within the site inspection (Section 6)
- NBN Co (WA), mapping indicates that NBN cables are present beneath the building north of Site 1 and immediately west of the Matilda Bay Reserve footpath and with the UWA.
- Nextgen (WA), mapping indicates that a third party conduit is present within the UWA in the north-west corner of Site 2.
- Public Transport Authority (PTA) – Bus Stop
- Telstra (WA), mapping indicates Telstra services parallel with Hackett Drive, west of the Matilda Bay Reserve footpath and within the area north of Site 1.
- University of WA, mapping indicates drainage pipes running east to west across Hackett Drive and the northern portion of Site 1 likely discharging into the Swan River as observed during the site inspection (Section 6.1).
- Water Corporation, mapping indicates sewer pipes beneath Hackett Drive and the roads north of the Site 1.
- Western Power, mapping indicates that a low voltage cable (<1 kv) is present beneath Hackett Drive and the road in the north-west corner of Site 1.

GHD notes that BYDA mapping typically terminates at the edges of lots and additional services not shown on the provided mapping may be present onsite.

6. Site inspection and interview

6.1 Interview

An interview was conducted with an onsite representative from DBCA, prior to the site inspections completed for Site 1 and Site 2. During this interview the following was noted:

– A 100 mm ACM pipe is present running north to south through the centre of the Matilda Bay Reserve at a depth between 0.5 and 1.0 m bgl. This pipe is the main water supply for the reticulation system of the site. Historically, sections of the pipe have been replaced with PVC when broken.
– To the DBCA representative's knowledge there are no up to date plans of the ACM pipe or the associated reticulation system.
– GHD were told that offsite groundwater bores are used for irrigation of the Matilda Bay Reserve. Bore water may be the source of the orange staining observed across the Matilda Bay Reserve (Section 6.2 and 6.3).
– Areas of exposed fill within the foreshore of Site 1 was marked on the site map for investigation during the site inspection.

No other items of interest were noted. The asbestos pipe was not observed during either site inspection or subsequent soil sampling exercise.

6.2 Site 1 – site inspection

A site inspection was completed at on the 2 May April 2025 at 10:30 am. Photos and notes from the visit are provided in Appendix C.

The weather conditions were noted as fine (~24ºC) with no rain, light winds[15] (north-westerly) and minimal cloud cover. The site was observed to consist of public open space (grass and trees), with a concrete footpath running north-south through the western portion of site and surface water (Matilda Bay / Swan River to the east). The footpath was in good condition with few cracks however, some of the footpath was stained orange (refer Photo 1). Similar staining was observed on service structures (refer Photo 2 and Photo 3) and trees. Staining may have been caused using bore water for irrigation.

Directly north of the Site was the Water Sports Complex and UWA Boat Club buildings and boat ramps. A hazardous chemical cabinet was observed in the Water Sports Complex boat workshop/storage area at the top of the boat ramp during the site inspection. The cabinet appeared to be in good condition during the site inspection. A set of restrooms with and associated sewers were observed on the south face of the Water Sports Complex building (refer Photo 4). A large drain (with steel grate) was observed directly south of the Water Sports Complex ramp (refer Photo 5 and Photo 6). The drain had an organic odour during the site inspection. It is assumed that the drain would discharge into the Matilda Bay. A second, non-grated, concrete drain was observed approximately 25 m south of the Water Sports complex drain (refer Photo 7). No odour was observed at this drain. Surface water from the Matilda Bay was washing into the drain opening during the site inspection.

The main switch board, cable gate and transformer for the Matilda Bay reserve were observed in the north-west corner of the site. Several service pits and covers including; NBN pit, Telstra pit, electrical switch / distribution boards (Zone 4), a transformer and two water pumps were observed either side of the foot path running the length of the Site. The services all appeared to be in good condition with some orange staining (the water pumps were heavily stained around the flanges) (refer Photos 8 to 11). Three lamp posts were observed within the grassed portion of the site. The bottom ~ 2 m of each post was stained orange and/or rusted.

Fill material was observed at the exposed soil face along the eastern portion of Site 1 (refer Photo 12). Approximately 100 m of exposed fill was observed along the exposed soil face within the site. The exposed fill material was observed to continue south of the Site 1 boundary towards Site 2. The fill material was observed to contain brick fragments, concrete, some charcoal and various gravels. No asbestos was observed within this

[15] As defined in the Beaufort wind scale <10 knots.

material during the site inspection. Similar material was observed on the site surface, where grass was not present, up to approximately 5 m west of the exposed soil face. Several burnt and broken wooden planks were observed along the exposed soil face of the site. The planks may have originally held the fill in place.

Several sprinklers comprising of concrete (stained orange) and green reticulation covers were observed across the site (refer Photo 13 and Photo 14). Two sets of four general and recycled waste bins (eight total), for public waste disposal, were observed on the site chained to metal posts. Grass conditions beneath the waste bins were poor. A PVC pipe stick up (refer Photo 15) with unspecified usage was observed in the northern portion of the site. A tap was observed in the garden bed in the northern end of the site, the purpose of the tap was not clear (refer Photo 16).

Open stormwater drains (three) were observed in Hackett Drive during the site inspections. No odours were observed at these drains during the site inspection. No significant blockages were observed during the site inspection.

Site 1 was observed to slope downwards from west to east during the site inspection. A steep decline in surface level was observed at the exposed soil face on the east portion of the site when transitioning from the grassed area to beached area (~ 1 to 1.5 m decrease vertically over ~ 0.5 m horizontally). Additionally, the grassed area in the southern portion of the site, slopes down quickly (0.5 m) east of the foot path. Most surface water and runoff is likely to infiltrate into the site surface (grass) or runoff into the Matilda Bay. Surface water from Hackett Drive is likely to collect in the observed stormwater drains.

There was no illegal dumping observed onsite during the site inspection. There was limited litter (plastics and paper) during the site inspection, most likely resulting from public use of the area. Other than the drains noted above there were no odours present during the site inspection. No chemical drums were observed during the site inspection. There was no evidence of lead paint, underground or above ground storage tanks and associated infrastructure (such as powers or fill points) on the Site.

There was no evidence of synthetic mineral fibres on the Site. Several birds (ducks and black swans) were observed onsite during the site inspection.

Site observations are also provided on Figure 2, Appendix A.

6.3 Site 2 – Site inspection

A site inspection was completed at on the 2 May April 2025 at 1:00 am. Photos and notes from the visit are provided in Appendix C.

The weather conditions were noted as fine (~26ºC), moderate winds[16] (north-westerly) and minimal cloud cover. Site 2 was observed to consist (from west to east) of; a UWA carpark, nature strip, Hackett Drive, a second car park (hence forth “Hacket Drive car park”), a grassed and treed public open space (Matilda Bay Reserve), with a concrete footpath running north-south through the western portion of site and surface water (Matilda Bay / Swan River). A toilet block was present in the northern portion of the site. The toilet block was in good condition but was heavily stained (orange) on the outer walls (refer Photo 17). The footpath within the Matilda Bay Reserve was in good condition with few cracks however, some of the footpath was stained orange (refer Photo 18). Staining may have been caused by the use of bore water for irrigation. The UWA carpark was in poor condition with large cracks and potholes in the bitumen surface (refer Photo 19). There was evidence of patching or the installation of subsurface services across the UWA carpark (refer Photo 19). The surface of Hackett Drive was in good condition. The grassed area (Matilda Bay Reserve) was in good condition with some areas showing distress, likely due to frequent foot traffic.

The portion of Site 2 east of Hackett Drive was observed to slope downwards from west to east towards the Matilda Bay. The UWA carpark, Hackett Drive and Hackett Drive carpark were relatively flat. A shallow gully was observed in the nature strip between the UWA carpark and Hackett Drive. A raised curb was observed separating both carparks and Hackett Drive from the nature strip and grassed area east (Matilda Bay Reserve) of Hackett Drive (refer Photo 18 and Photo 20). Surface water from Hackett Drive and both carparks is likely to run into the stormwater drains observed within each of them. Surface water is likely to gather at the bottom of the nature strip

[16] As defined in the Beaufort wind scale 11-16 knots.

gully and infiltrate downwards through the unsealed surface. Most surface water and runoff east of the foot path is likely to infiltrate into the site surface (grass) or runoff into the Matilda Bay.

Storm water drains were observed in the bituminised and concreted portions of the site (UWA carpark, Hackett Drive and Hackett Drive carpark). Down pipes were observed on the sides of the UWA buildings and toilet block (refer Photo 21). A fire hydrant, in good condition, was observed within the UWA carpark (refer Photo 22). The hydrant was not accessed at the time of the site inspection. Within one of the storm water drains on the eastern side of the Hackett Drive car park a wrapped pipe (refer Photo 23) was observed running north-south. Based on the position of this pipe relative to Site 1, it is possible that this could be the 100 mm ACM pipe providing reticulation water to Site 1 and Site 2. A moderate organic odour was noted at one of the stormwater drains within Hackett Drive during the site inspection.

Several sprinklers comprising of concrete colours (stained orange) and green reticulation covers were observed across the site. One set four general and recycled waste bins for public waste disposal, were observed on the site chained to metal posts. Grass conditions beneath the waste bins were poor.

Fill material was not observed in the exposed soil face at the water's edge[17]. Some construction and demolition rubble was observed in areas of exposed soil such as beneath the general bins (refer Photo 24). The observed construction and demolition consisted of small concrete, limestone and brick fragments. A low limestone retaining wall was observed, in good condition, along the beach front of the site. Two non-grated concrete pipe outlets were observed along the water line of the site and would discharge into the Matilda Bay (refer Photos 25 to 28). The BYDA indicate that these are drainage pipes for Hacket Drive and the UWA carpark. One pipe was located at in the north and one pipe was located in the south portion of the site. These pipes may discharge stormwater from Hackett Drive and associated carpark. However, no water was being discharged during the site inspection.

Several service pits were observed along the western side of the footpath, toilet block and UWA buildings. These services consisted of; sewers, Water Corporation access pits and electrical switch boards (associated with parking meters). A tap with a plastic feeding bath was observed within the Matilda Bay Reserve portion of Site 2, during the site inspection. There was water in the feeding bath and small birds drinking from it during the site inspection. Several birds (ducks and black swans) were observed onsite along the foreshore of the Matilda Bay Reserve portion of Site 2 during the site inspection. There was no evidence of synthetic mineral fibres on the Site.

Site observations are also provided on Figure 2, Appendix A.

[17] However, refusal on concrete and brick fragments was encountered at GHD_MatBay2_HA01 during the soil investigation.

7. Data quality objectives

As noted in Section 2.2.2 limited soil (terrestrial) sampling was included in the scope of work to inform this preliminary assessment.

Based on the desktop study and site inspection completed for the DE, GHD considers that formulation of a series of appropriate objectives are required to ensure that data are captured in a consistent manner and with respect to appropriate guidance. Therefore, GHD has developed the following Data Quality Objective (DQO) program with reference to guidance presented in the ASC NEPM (2013).

The DQO process comprises the following seven steps and is presented in detail in Table 11.

– Step 1: State the problem
– Step 2: Identify the decision(s) (questions and alternative actions)
– Step 3: Identify Information inputs
– Step 4: Study boundaries
– Step 5: Develop decision rules
– Step 6: Performance/ criteria (tolerable limits on decision errors)
– Step 7: Develop a plan for obtaining data (optimise the DQOs)

Table 11 Data quality objectives

Step	Description
Step 1: State the problem	The potential risks posed by contamination to human health, the environment and/or environmental values present at DEs for the proposed Project are unknown. Further information is required to inform whether further investigation, risk assessment and/or remediation and management works are required to facilitate the development of the DEs. Due to the nature of the project, some shallow landside disturbance of soils will be required. Disturbance of surface water (Swan River) and river sediments will also be required[18]. There is potential for various CoPC to be encountered within soil, sediments, surface water and groundwater during the Project that may require management. The nature and severity of such impacts is however uncertain at this time.
Step 2: Identify decision(s)	Are contamination-impacted soils, sediment, surface water and groundwater present at the Sites^ and do they indicate management is required to address potential risks in order to facilitate construction of the proposed ferry landing and supporting infrastructure*. *^subject to the limitations of the preliminary nature of the assessment (i.e. limited-scope soil sampling)* **within the context of the concept study and construction works assumed to be required at this time to facilitate the design.*
Step 3: Identify Information inputs	The following data inputs will be required for the limited-scope (terrestrial) soil sampling: – Based upon the desktop assessment - identification of relevant contaminants of potential concern (CoPC). – Relevant constraints (preliminary nature of the assessment - i.e. limited-scope soil sampling, level of information available for the development proposals, access constraints such as existing buried services, public use of the Sites). – Selection of appropriate assessment criteria relevant to the context of the assessment (adopted guidelines and policies presented in Section 8). – Collection of soil samples, PID readings and laboratory analysis of selected representative samples for COPC (advance three soil bores [per Site] to a maximum depth of 1 m bgl). – Documented field evidence of visual/olfactory impacts in soils used to inform sampling and analysis strategy.
Step 4: Study boundaries	**Spatial:** Soil bores and located within the DE. **Vertical:** The depth range of interest for soil sampling comprises maximum depths of 1 m. **Temporal:** Information is required to inform the construction within the DE. The intrusive fieldwork data gathering on site was completed on 2 May 2025.

[18] It has been assumed that no groundwater abstraction will be required.

Step	Description
Step 5: Develop decision rule	If COPC are present in relevant media exceeding relevant assessment criteria, then the following actions may be undertaken (separate scope of work): Identify (at a high level) the need for management measures or controls to be adopted including consideration of: – Additional assessment to further characterise risk and inform decision making as deemed appropriate. – Review of design and/or construction methods to minimise requirements for waste disposal, soil and sediment disturbance as proposals are developed further and more information is available. – Other management action with respect to relevant media to mitigate risks to human health, the environment, or any environmental value.
Step 6: Performance/ criteria	The Data Quality Indicators (DQIs) for sampling techniques and laboratory analysis of collected samples defines the acceptable level of error required for this investigation. The DQOs were assessed by reference to DQIs as follows: **Completeness:** A measure of the amount of useable data (expressed as %) from a data collection activity. Completeness is achieved if samples have been taken from all the required sampling locations and analysed for the CoPC. Preparation of sampling documentation also forms part of the data completeness. **Comparability:** The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event. Methodologies for sampling and sample analysis will be consistent throughout the assessment to ensure that data can be reliably compared. **Representativeness:** The confidence (expressed qualitatively) that data are representative of each media present on site (as applicable). The soil assessment is considered to be representative of site conditions if all samples have been collected and analysed in accordance with the DQOs. **Precision:** A quantitative measure of the variability (or reproducibility) of data. RPD results for field and laboratory duplicates and triplicates are calculated and expected to be generally < 30 %. **Accuracy (bias):** A quantitative measure of the closeness of reported data to the true value. Accuracy is achieved if results for field and laboratory blanks, matrix spike, surrogate and laboratory control samples are of acceptable quality. Blanks are generally expected to have results below the laboratory's LOR and laboratory spike and surrogate recoveries are expected to be between 70 to 130 % (depending on analyte). The following are examples of how the DQIs will be appropriately assessed: – Analyte selection informed by identified CoPC – Assessment criteria based on ASC NEPM guidelines have risk probabilities incorporated – Decisions based on comparing 95% upper confidence limits against criteria – Acceptance limits for field and inter-laboratory duplicate comparisons specified – Acceptance limits for laboratory QA/QC based on AS4482.1-2005 and ASC NEPM requirements.
Step 7: Develop a plan for obtaining data (optimise the DQOs)	Design optimisation as follows: – Sampling and analytical schedules based on: • Review of historical data findings and concept design information • Selection of targeted locations within the DE based upon desktop findings against consideration of concept design information and access constraints (e.g. sealed surfaces) – DQOs prepared in accordance with the ASC NEPM. – The use of NATA accredited laboratories. – Suitably experienced field scientist(s) utilised for fieldworks.

8. Assessment criteria

The following guidelines will be utilised to undertake the Tier 1 risk evaluation of collected soil samples:

– Department of Water and Environment Regulation (DWER) 2021, *Assessment and management of contaminated sites*, Contaminated Sites Guidelines, November 2021.
– DWER (2019), *Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)*, December 2019.
– Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE) 2011, Technical Report no. 10, *Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater*, September 2011.
– National Environment Protection Council (NEPC) 1999, *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*, April 2013 [ASC NEPM].

As defined in the ASC NEPM, investigation levels and screening levels detailed herein are the concentrations of a contaminant above which further investigation and evaluation will be required.

8.1 Tier 1 screening – soil

A land use setting of 'C' (Public Open Space), from a human health perspective, has been adopted as a conservative measure for most criteria as the this is the current land use and is not expected to change post-development.

A land use setting of 'National Parks and Areas of Ecological Significance' (henceforth "A"), from an ecological health perspective, has been adopted as conservative measure for most criteria as the Matilda Bay Reserve is a Class A nature reserve (national) with ecological values worth preserving.

The criteria to be used are summarised below.

8.1.1 Human health screening criteria

Health Screening Levels (HSLs) published in Schedule B1 of the ASC NEPM will be adopted to assess potential chronic human health risks from hydrocarbon impacted soils via the vapour intrusion pathway for a recreational/open space land use (HSL-C VI) (NEPC 2013). Criteria for the SAND soil type will be adopted as this is the soil type encountered in all soil sampling locations within the DE.

Direct contact HSLs for recreational/open space land use (HSL-C direct contact) and intrusive maintenance workers (IMW) and vapour intrusion HSLs for IMW will be adopted from CRC CARE (2011) as they are not published in the ASC NEPM.

Health Investigation Levels (HILs) published in Schedule B1 of the ASC NEPM will be adopted to assess chronic human health risks from other non-petroleum hydrocarbon contaminants for a recreational use such as public open space (HIL-C).

8.1.2 Ecological screening criteria

There are sensitive ecological receptors at and within both Sites including: the Swan River (including aquatic receptors), Pelican Point (Swan Estuary Marine Park) and a national reserve (Matilda Bay Reserve). Therefore, ecological screening levels (ESLs) and ecological investigation levels (EILs) published in Schedule B1 of the ASC NEPM for areas of ecological significance (conservative) and urban residential/public open space will be adopted as Tier 1 chronic ecological risk screening criteria.

ESLs and EILs typically apply to the upper 2 m bgl which represents the typical depth extent for most ecological species to be present within.

8.1.3 Management limits

The ASC NEPM Management Limits (MLs) are intended to be applied after evaluation of human health risks, ecological risks, and risks to groundwater resources. The MLs are not depth limited and are utilised as Tier 1 criteria to screen for the following potential risks:

– Formation of observable light LNAPL.
– Fire and explosive hazards.
– Effects on buried infrastructure (e.g. penetration of, or damage to, in-ground utilities by hydrocarbons).

The ASC NEPM qualifies that the MLs are relevant to operating sites, where sub-surface leakage of petroleum compounds has occurred, or when decommissioning industrial and commercial sites.

8.2 Waste Classification - soil

The characterisation of soil (in-situ) will be undertaken with reference to DWER (2019) guidelines. The material will be assessed relative to the following criteria:

– Uncontaminated fill.
– Landfill Classification: Contaminant Threshold (CT) values in the first instance.

Soil results were compared to waste classification criteria to inform potential disposal options (if required) – the comparison is however based upon limited sampling and is preliminary in nature only.

An exceedance of waste classification criteria does indicate an unacceptable risk to human or ecological health and does not (in isolation) indicate that the soils require remediation or management (i.e. disposal). Requirements for waste disposal (if any) require assessment when the proposed design has been confirmed and likely construction requirements are better defined. Requirements for further investigation for waste classification purposes can then be determined to inform construction (where such disposal is contemplated).

8.3 Summary of criteria

A summary of the soil and groundwater assessment criteria is provided below in Table 12.

Table 12 Summary of adopted criteria

Matrix	Type	Criteria
Soil (sand[19])	Health-based	NEPM (2013) Table 1A(1) Health Investigation Level (HIL) for Recreational C (HIL-C)
		NEPM (2013) Table 1A(3) Health Screening Level (HSL) for Recreational/ Open Space Land Use (HSL-C)
		CRC CARE (2011) Soil Direct Contact Health Screening Level for Recreational/ Open Space Land Use (HSL-C)
		CRC CARE (2011) Soil Health Screening Level for Vapour Intrusion Intrusive Works
		CRC CARE (2011) Soil Vapour Health Screening Level for Intrusive Maintenance Worker
		DoH (2021) Residential A – bonded ACM (0.01 % w/w) and all site users FA/AF (0.001 % w/w)
	Ecological	NEPM (2013) Table 1B(6) Ecological Screening Level (ESL) Urban Residential and Public Open Space, Course Soil
		NEPM (2013) Table 1B(6) Ecological Screening Level (ESL) Areas of Ecological Significance, Course Soil
		NEPM (2013) Table 1B Ecological Investigation Level (EIL) for Residential and Public Open Space Land Use
		NEPM (2013) Table 1B Ecological Investigation Level (EIL) for Areas of Ecological Significance

[19] If a non-sand soil unit is sampled during the soil investigation the assessment criteria for appropriate soil type (sand, silt or clay) will be used.

Matrix	Type	Criteria
	In-ground services	NEPM (2013) Table 1B(7) Management Limits Residential, Parkland and Public Open Space, Coarse Soil
	Waste classification	DWER (2019) Landfill CT Class 1-4
		DWER (2019) Landfill CL Class 1-4 (*if required*)
		DWER (2019) Landfill ASLP Class 1-4 (*if required*)
		DWER (2019) Landfill Uncontaminated Maximum Concentration

9. Methodology – limited soil assessment

9.1 Pre-mobilisation tasks

9.1.1 Health and safety

Prior to site mobilisation the following tasks were undertaken.

– Completion of relevant health safety and environment (HSE) documentation for GHD personnel during the site activities, comprising preparation and review of a Job, Safety, and Environmental Analysis (JSEA) and completion of pre-work assessments onsite prior to commencing works and at any relevant hold points (where required). A Safe Work Method Statement (SWM) describing the method for the proposed site inspection and soil sampling (via hand auguring) being undertaken. These safety documents were provided to the PTA for review prior to field works.
– Review of service plans for the site (BYDA) to identify potential locations of subsurface infrastructure and ground-truthing of these features onsite. Soil sampling locations were positioned to avoid known services (Section 9.1.2).
– All personnel involved in the Site works met for a pre-work assessment prior to commencing work which included review of the JSEA and discussion/identification of any additional safety concerns such as weather conditions, traffic, access etc. on the day of works.
– Checking of personal protective equipment (PPE) as required.
– Review the GHD JSEA on-site via toolbox meeting or briefing.

GHD site personnel who undertook the work were suitably trained and experienced to complete the proposed works safely.

9.1.2 Services

To minimise the risk of underground services being encountered, disturbed, or damaged, the following was undertaken:

– Desktop searches for utility information (BYDA) were carried out prior to field work
– Ground-truthing of utilities onsite (where possible)
– Visual assessment of any obvious surface scarring or other evidence of buried services/ground disturbance in the vicinity of planned investigation locations
– Investigation locations were planned to avoid the locations of known services and the locations were moved as needed during the Site works to minimise the risk of damaging/encountering underground services based on Site observations
– Soil bores were advanced using manual hand tools only (i.e., a hang auger) and due care was taken by GHD personnel to mitigate damage to sensitive and potentially unprotected utilities (e.g., fibre optic cables)
– Work stopped if potential buried services or asbestos containing materials (ACM) were encountered[20].

Further practical considerations (where relevant) comprised the locations within areas of unsealed ground (i.e., garden beds and lawns) to enable the use of manual hand tools and to avoid trafficked areas such as roadways and paths (i.e., for safety and to minimise disturbance).

9.1.3 Soil sample location selection

Soil sample locations were chosen to target areas of interest noted during the desktop study and onsite interview. Specific investigation considerations comprised:

[20] No asbestos was encountered during the soil investigation.

– Positioning the locations to enable adequate spatial coverage of the soils present in the upper 1 m bgl across the Site.
– Site 1: soil locations were positioned to target; potential fill soils near recreational boating facilities (Water Sports Complex and WA Boat Club) (GHD_MatBay1_HA01), exposed fill within the foreshore (GHD_MatBay1_HA02) and potential market gardens observed in historical aerials (GHD_MatBay1_HA03).
– Site 2: soil locations were positioned to target; the potential market gardens observed in historical aerials (GHD_MatBay2_HA01), the southern extent of potential fill material within the Matilda Bay Reserve (GHD_MatBay2_HA02) and the nature strip between the UWA and Hackett Drive which is local low point and potential area for surface water to infiltrate (GHD_MatBay2_HA03).

The locations of soil bores are shown on Figure 1 (Appendix A).

9.1.4 Field equipment calibration

Field instrumentation (PhotoIonisation Detector [PID]) was calibrated prior to use by the equipment supplier. Calibration certificates are provided in Appendix I.

9.2 Methodology

Soil sampling was completed via hand auguring at three terrestrial locations at each Site (six total). The hand arguing methodology used is provided below.

– Inspection of the soil surface at the intended sampling locations for potential indicators of contamination (e.g., staining, liquids, odours, potential ACM, rubble, or waste materials).
– Clear the area to be sampled of leaf litter and any surface debris (e.g. sticks, rocks, litter) using a spade. Depending on the stability of the soil, it may be necessary to remove the first few centimetres of soil (grass) from a radius of approximately 150 mm around the soil sampling location.
– Commencement of augering, periodically removing and depositing accumulated soils onto a plastic sheet or core tray placed beside the hole, continuing until the target depth (1 m bgl) is reached or until refusal is encountered.
– Collection of samples from the removed soils using laboratory supplied sample containers either by a gloved hand or using a hand trowel. Record the location of the sampling point and the soil type and depths at which samples are taken. Any non-soil debris (such as gravels, organic materials, or foreign objects) were excluded from the sample container, where possible.
– PID reading of soils taken at each sampled depth by placing a small amount of soil in a ziplock bag and placing the probe inlet from the PID within the bag.
– Excess soil cuttings returned to the hole in the order in which it was removed and tamp down.

9.2.1 Decontamination Methods

All reusable equipment that came into contact with the soil samples (i.e., hand auger, trowel) was decontaminated prior to commencing the investigation and between the investigation locations. The decontamination method was as follows:

– Remove bulk residual material (i.e., soils) from the equipment by using a stiff brush, scrubbing in a bucket of tap water.
– Thoroughly wash the equipment in a second bucket containing tap water and detergent of known composition (Decon 90).
– Rinse the equipment with tap water.

Care was taken during the decontamination process to reduce spills and control the release of all water.

Dedicated, disposable nitrile gloves were worn by field personnel during sampling, and these were replaced between samples to minimise the potential for cross-contamination.

10. Quality assurance and quality control program

QA/QC procedures were undertaken in accordance with the ASC NEPM (NEPC 1999) and DWER (2021) requirements and a QA/QC evaluation is summarised in Table 17 (overleaf). The field work for the three DEs (including the Matilda Bay sites) where soil sampling was completed were treated as a single continuous field program for the purposes of the QA/QC program. Therefore, QA/QC was assessed with respect to the whole program rather than a Site-by-Site basis for the purpose of frequency (such as duplicates and triplicate samples) and completeness. A review of the field and laboratory QA/QC data and procedures indicates an acceptable level of compliance with DQOs, general project requirements and project objectives for the whole field work program.

With consideration for the DQIs of completeness, comparability, representativeness, precision, and accuracy (NEPC 1999), the collected data is assessed to be of suitable quality with respect to consideration of relevant soil characteristics at the sampled locations within the Site. As such, it is considered that there is an acceptable level of confidence in the data to inform decision-making.

Table 13 Summary of fieldwork QA/QC compliance

QA/QC Element	Requirement	Requirement adhered to?	Information/data acceptable
Field aspects			
Detailed records (completeness)	Records documenting field activities using standardised templates, CoC forms and records	Yes	Yes - Detailed field notes (site inspection and bore logs) were collected and recorded in standardised templates (Appendix C and Appendix J respectively). CoCs were completed and provided to the laboratory with the collected samples (Appendix K).
Methodology (comparability)	Sampling was completed in accordance to the proposed methodology (Section 9).	Yes	Yes – Sampling was completed in accordance with the proposed methodology. The same methodology was used at all soil sampling locations during this investigation.
Decontamination	The use of new disposable gloves for the collection of each sample and decontamination of the sampling equipment between each sampling location.	Yes	Yes – Sampling procedures adhered to acceptable level in conducting fieldworks to a level considered sufficient to minimise risk of cross contamination. No analyte concentrations were observed above LOR in the field rinsate, blank or transport blank samples collected at Site 1 or Site 2 during the field works (Appendix D). This further supports that decontamination methods were effective between sampling locations and that the data set has not been compromised by possible cross contamination issues to an extent to prevent decision making.
Sample preservation and analytical holding times	All samples transported/received by the analytical laboratory in accordance with relevant holding time requirements	Yes	Yes – All samples were received by the laboratories and analysed within the respective holding times (Appendix K). Collected samples were immediately transferred to laboratory supplied sample containers of appropriate composition and preservation for the required laboratory analysis. All sample containers were clearly labelled with a sample number, job number, sample depth and sample date. The sample containers are then transferred to a chilled insulated container (using ice bricks contained in plastic) for sample preservation prior to and during shipment to the analytical laboratory and were received chilled.

QA/QC Element	Requirement	Requirement adhered to?	Information/data acceptable
Calibration of field equipment	Field equipment will be calibrated by the rental supplier to ensure accuracy of measurements taken in the field.	Yes	Yes – The PID used during the field works was calibrated by the supplier prior to use and the calibration certificate provided (Appendix I)
Analysis suite (accuracy)	Samples were submitted for proposed soil analysis suite	Yes	Yes – All soil samples were submitted for the proposed soil analysis suite.
QC sampling frequency (precision)	Duplicate sampling and sampling protocols 1: 20.	Yes	Yes - 39 total primary samples analysed for select analysis. Total 2 blind duplicate and 2 total spilt duplicate samples for select analysis. Standard contamination analysis of 2:39
Representativeness of samples collected/analysed (representativeness and completeness)	All relevant media were sampled during the investigation. Soil samples were collected at the proposed sampling locations and intervals (three per location at 0.0 m bgl, 0.5 m bgl and 1 m bgl) or at least one sample from each unique soil horizon.	Yes	Yes – The relevant media (soil) was sampled during the investigation. Yes – Soil samples were obtained at an appropriate frequency and within relevant lithological units. All proposed soil sampling locations were completed although, the target depth was not achieved (GHD_MatBay2_HA01 and GHD_MatBay2_HA01) at all locations.
RPDs (precision)	RPDs are within acceptable range (<30%)	Yes with minor exceptions	Yes with minor exceptions[21] – 659 out of 671 RPD calculations (98%) returned a value within the acceptable range (<30%). All 12 of the RPDs outside the acceptable range occurred where both analyte results were close to the LOR (<10xLOR). As results approach the LOR accuracy decreases and therefore, the observed RPD exceedances are likely caused by the decreasing accuracy of the laboratory method at low concentrations. Most (nine) of the RPD exceedances occurred between the primary and blind duplicate samples. The RPDs exceedances were not considered to have affected the soil assessment were there was acceptable field and laboratory precision.
Laboratory			
NATA accreditation (accuracy)	Analysis of CoPC performed under NATA accreditation or equivalent government-endorsed provider of accreditation	Yes	Yes – The two laboratories used for this investigation: ARL I Eurofins (primary) and ALS (secondary), are NATA accredited laboratories.

[21] GHD notes that the duplicate samples were collected from Ellam Street not Matilda Bay but, as soil sampling was completed as a single continuous program, has been treated as representative of precision for QA/QC purposes across all the sampled DEs.

QA/QC Element	Requirement	Requirement adhered to?	Information/data acceptable
Holding times	Laboratory to complete sample extraction and analysis of CoPC within method specifications	Yes	Yes – Analytes were extracted and analysed within the recommended holding times by the laboratories (Appendix K).
Analytical methods (accuracy)	Appropriate methods for each CoPC with regard to Schedule B(3) of the ASC NEPM and in accordance with the laboratory's NATA accreditation	Yes	Yes – Methods provided in Appendix K
Applied laboratory limit of reporting (LOR) values (accuracy)	Laboratory LOR values below the adopted assessment criteria	Yes	Yes – All CoPC LORs achieved for soil samples submitted for analysis were at or below the relevant adopted assessment criteria.
Laboratory QC results (accuracy)	Laboratory quality control performance to comply with the requirements described	Yes with minor exceptions	Yes with minor exceptions – No method blank, laboratory duplicate, matrix spike, surrogate recovery or quality control sample frequency outliers were reported (Appendix K). Some minor laboratory control spike outliers exist: Five analyses had recoveries greater than upper control limit (Appendix K). These were not considered to have affected the soil assessment as all concentrations of these analytes were below LOR in soils analysed as part of this investigation.

11. Results – limited soil assessment

Soil sampling was completed at Site 1 and Site 2 on 2 May 2025. Soil sampling locations for Site 1 and Site 2 are presented in Figure 1. The sampling locations completed on each site are summarised below:

– Site 1:
  - GHD_MatBay1_HA01
  - GHD_MatBay1_HA02
  - GHD_MatBay1_HA03
– Site 2:
  - GHD_MatBay2_HA01
  - GHD_MatBay2_HA02
  - GHD_MatBay2_HA03

11.1 Field observations

11.1.1 Site-specific ground conditions

The lithology encountered on-Site was generally consistent with that expected following review of desktop information (Section 4.3). A summary of the soils encountered on-Site is provided in Table 14 (Site 1) and Table 15 (Site 2) below. Soil bore logs are presented in Appendix J.

Table 14 Site 1 encountered geology

Depth (m bgl)	Material	General description	Field observations	PID reading (ppm)
0.0 – 0.10	FILL	GRASS	No notable visual or olfactory indicators of contamination observed.	0.0
0.05 – 0.25	FILL	SAND: Brown with trace rootlets, well graded, medium gained, subangular to sub-rounded, slightly moist, loose. Some charcoals were observed at GHD_MatBay1_HA01. The material was brown-red at GHD_MatBay1_HA02.	No notable visual or olfactory indicators of contamination observed.	0.0
0.25 – 0.7	FILL	SAND: Pale brown, with some to trace charcoals and rubble, well graded, medium grained, subangular to subrounded, slightly moist, loose. Encountered at GHD_MatBay1_HA01 and GHD_MatBay1_HA02. SAND: Yellow, well graded, medium to coarse grained, subangular to subrounded, moist, loose. Encountered at GHD_MatBay1_HA03.	No notable visual or olfactory indicators of contamination observed.	0.0
0.7 – 1.0	NATURAL	CLAYEY SAND: Yellow, some red-orange coarse gravels, well graded, fine to medium grained, subrounded to rounded, moist medium dense.	No notable visual or olfactory indicators of contamination observed.	0.0

Depth (m bgl)	Material	General description	Field observations	PID reading (ppm)
		Encountered at GHD_MatBay1_HA03. SAND: Yellow mottled brown, poorly graded, fine to medium grained, subangular to subrounded, slightly moist, loose. Encountered at GHD_MatBay1_HA02. SAND: Grey, with trace charcoal, poorly graded, medium grained, subrounded, moist medium dense. Encountered at GHD_MatBay1_HA01.		
Comments	The target depth of 1 m was achieved at all hand auguring locations completed within Site 1. Refusal on construction and demolition rubble was encountered in the first hand augur for GHD_MatBay1_HA02. The location was moved ~2 m west and target depth was achieved. Some groundwater was observed at the base (1 m bgl) of GHD_MatBay1_HA03 during backfilling.			

Table 15 Site 2 encountered geology

Depth (m bgl)	Material	General description	Field observations	PID reading (ppm)
GHD_MatBay2_HA01 and GHD_MatBay2_HA02.				
0.0 – 0.10	FILL	GRASS	No notable visual or olfactory indicators of contamination observed.	0.0
0.1 – 0.7	FILL	SAND: Brown to dark brown, some rubble (gap graded, coarse, angular), well graded, medium grained, subangular to subrounded, slightly moist.	No notable visual or olfactory indicators of contamination observed.	0.0
GHD_MatBay2_HA03				
0.0 – 0.10	FILL	MULCH	No notable visual or olfactory indicators of contamination observed.	0.0
0.10 – 0.20	REWORKED NATURAL	SAND: Brown, some organics, well graded, fine to medium grained, subangular to subrounded, dry, loose.	No notable visual or olfactory indicators of contamination observed.	0.0
0.20 – 0.50	REWORKED NATURAL	SAND: Pale brown, trace organics, well graded, fine to medium grained, subangular to subrounded, dry, loose.	No notable visual or olfactory indicators of contamination observed.	0.0
0.50 – 1.00	REWORKED NATURAL	SAND: Yellow, with silt, well graded, fine to medium grained, subangular to subrounded, dry, loose.	No notable visual or olfactory indicators of contamination observed.	0.0
Comments	The target depth of 1 m bgl was not achieved at GHD_MatBay2_HA01 (0.75 m bgl achieved) or GHD_MatBay2_HA02 (0.65 m bgl achieved) due to refusal on construction and demolition rubble. Each location was moved several times when refusal was encountered however refusal was encountered at similar depths each time. GHD_MatBay2_HA01 and GHD_MatBay2_HA02 were completed within the Matilda Bay Reserve grassed area. GHD_MatBay2_HA03 was completed within the nature strip between the UWA carpark and Hackett Drive.			

11.1.2 Visual and olfactory observations

No odours or staining were observed in the soil profile at the locations subject to soil assessment. Construction and demolition rubble was observed within fill materials (pale brown to dark brown sands) in the following hand augur locations within completed within the Matilda Bay Reserve:

– Site 1
  - GHD_MatBay1_HA01
  - GHD_MatBay1_HA02
– Site 2
  - GHD_MatBay2_HA01
  - GHD_MatBay2_HA02

No construction or demolition rubble was observed in soils collected from GHD_MatBay2_HA03, completed within the nature strip between the UWA and Hackett Drive, or GHD_MatBay1_HA03 at which the brown fill sands observed at the other hand augur locations were found. No asbestos was observed in soils during the hand auguring. All PID readings, taken from each soil horizon, were below detection (0 ppm).

11.2 Soil analytical results

11.2.1 Soil analytical suite

The analytical suite for this limited soil assessment was selected based upon information obtained from the desktop component of this PSI and is summarised in Table 16.

Table 16 Soil analytical suite

Metals (arsenic, cadmium, chromium [III+VI], copper, lead, mercury, nickel, and zinc)	Uncontrolled fill of unknown origin observed within the Matilda Bay Reserve.	Site wide
Hydrocarbons (total recoverable hydrocarbons [TRH], benzene, toluene, ethylbenzene, total xylenes, and naphthalene [BTEXN], polycyclic aromatic hydrocarbons [PAH])		
Chlorinated hydrocarbons, halogenated hydrocarbons, semivolatile organic compounds (SVOC), and volatile organic compounds (VOC)		

11.2.2 Tier 1 screening – soil

Soil analytical results for each Site were compared against the adopted assessment criteria in Section 8 and presented in Appendix D. Laboratory reports are presented in Appendix K.

There were four CoPC concentrations (zinc) reported above the adopted assessment criteria (EIL-A and EIL-C) from the soil samples submitted for Site 1 and two exceedances (zinc, EIL-A) reported for Site 2. The exceedances are summarised in Table 17 below. All other CoPC concentrations were below LOR or the adopted assessment criteria in Site 1 and Site 2 soil samples.

Table 17 Site 1 soil exceedances

Sample location	Sample depth (m bgl)	Analyte	Criteria Exceeded (value)	Concentration (MoE[22])
Site 1				
	0.1 - 0.2	Zinc	EIL-A (15 mg/kg)	20 mg/kg (1.3)

[22] Magnitude of Exceedance

Sample location	Sample depth (m bgl)	Analyte	Criteria Exceeded (value)	Concentration (MoE[22])
	0.2 – 0.8		EIL-A (15 mg/kg) and EIL-C (70 mg/kg)	79 mg/kg (5.3 / 1.13)
	0.1 - 0.3	Zinc	EIL-A (15 mg/kg)	20 mg/kg (1.3)
	0.3 – 0.6			45 mg/kg (3)
Site 2				
	0.3 - 0.5	Zinc	EIL-A (15 mg/kg)	27 mg/kg (1.8)
	0.1 – 0.2	Zinc	EIL-A (15 mg/kg)	26 mg/kg (1.7)

Concentrations of CoPC detected at/or above the LOR but below the relevant adopted assessment criteria in soil samples analysed, are summarised in Table 18.

Table 18 Site 1 and Site 2 CoPC detected above LOR in soil

Sample location	Depth	CoPC detected above LOR and below assessment criteria			CoPC (recorded concentrations)
		Metals	TRH	PAH	
Site 1					
GHD_MatBay1_HA01	0.1 – 0.2	✓	-	✓	Arsenic (3.4 mg/kg), Chromium (III+VI) (8.3 mg/kg), Copper (5.9 mg/kg), Lead (26 mg/kg), Mercury (0.003 mg/kg), Nickel (1.2 mg/kg), Zinc (20 mg/kg), Benzo(a)pyrene (0.5 mg/kg), Benzo[b+j]fluoranthene (1.4 mg/kg), Chrysene (1.2 mg/kg), Pyrene (1.4 mg/kg)
	0.2 – 0.8	✓	-	✓	Arsenic (6.3 mg/kg), Chromium (III+VI) (15 mg/kg), Copper (11 mg/kg), Lead (110 mg/kg), Mercury (0.003 mg/kg), Nickel (1.8 mg/kg), Zinc (79 mg/kg),
	0.8 – 1.0	✓	-	-	Chromium (III+VI) (1.4 mg/kg), Lead 1.6 mg/kg) , Zinc (7.1 mg/kg)
GHD_MatBay1_HA02	0.1 – 0.3	✓	-	-	Arsenic (11mg/kg), Chromium (III+VI) (21 mg/kg), Copper (11 mg/kg), Lead (53 mg/kg), Mercury (0.003 mg/kg), Nickel (1.5 mg/kg), Zinc (14 mg/kg),
	0.3 – 0.7	✓	-	-	Arsenic (4.3 mg/kg), Chromium (III+VI) (2.5 mg/kg), Copper (2.1 mg/kg), Lead (8 mg/kg)
	0.7 – 1.0	✓	-	-	Chromium (III+VI) (1.3 mg/kg), Lead (1.6 mg/kg)
GHD_MatBay1_HA03	0.1 – 0.3	✓	-	-	Chromium (III+VI) (5.1 mg/kg), Copper (5.2 mg/kg), Lead (14 mg/kg), Mercury (0.03 mg/kg), Nickel (1.2 mg/kg), Zinc (20 mg/kg).
	0.3 – 0.6	✓	-	-	Chromium (III+VI) (6.6 mg/kg), Copper (2.8 mg/kg), Lead (7.3 mg/kg), Mercury (0.004 mg/kg), Nickel (1.4 mg/kg), Zinc (45 mg/kg)
	0.6 – 1.0	✓	-	-	Chromium (III+VI) (11 mg/kg), Copper (1.2 mg/kg), Lead (7.3

Sample location	Depth	CoPC detected above LOR and below assessment criteria			CoPC (recorded concentrations)
		Metals	TRH	PAH	
					mg/kg), Mercury (0.004 mg/kg), Nickel (1.7 mg/kg)
Site 2					
GHD_MatBay2_HA01	0.1 - 0.3	✓	-	-	Chromium (III+VI) (1.3 mg/kg), Copper (1.7 mg/kg), Lead (3.4 mg/kg), Zinc (6.9 mg/kg)
	0.3 - 0.5	✓	-	-	Chromium (III+VI) (1.0 mg/kg), Copper (1.4 mg/kg), Lead (2.0 mg/kg)
	0.5 - 0.75	✓	-	-	Cadmium (0.2 mg/kg), Chromium (III+VI) (2.2 mg/kg), Copper (4.1 mg/kg), Lead (4.3 mg/kg), Mercury (0.02 mg/kg), Zinc (10 mg/kg)
GHD_MatBay2_HA02	0.1 - 0.3	✓	-	-	Chromium (III+VI) (2.4 mg/kg), Copper (1.5 mg/kg), Lead (5.9 mg/kg), Zinc (5 mg/kg)
	0.3 - 0.5	✓	-	-	Chromium (III+VI) (6.2 mg/kg), Copper (6.3 mg/kg), Lead (30 mg/kg), Mercury (0.03 mg/kg), Nickel (1.5 mg/kg), Zinc (27 mg/kg)
	0.5 - 0.65	✓	-	-	Chromium (III+VI) (3.3 mg/kg), Copper (1.9 mg/kg), Lead (7.3 mg/kg), Zinc (5.8 mg/kg)
GHD_MatBay2_HA03	0.1 - 0.2	✓	✓	-	Chromium (III+VI) (6.0 mg/kg), Copper (6.1 mg/kg), Lead (31 mg/kg), Mercury (0.04 mg/kg), Nickel (1.6 mg/kg), Zinc (26 mg/kg), C29-C36 fraction (52 mg/kg)
	0.2 - 0.5	✓	-	-	Chromium (III+VI) (4.8 mg/kg), Copper (2.1 mg/kg), Lead (7.6 mg/kg), Mercury (0.003 mg/kg), Nickel (1.7 mg/kg), Zinc (5.9 mg/kg)
	0.5 - 1	✓	-	-	Chromium (III+VI) (4.5 mg/kg), Copper (1.1 mg/kg), Lead (3.1 mg/kg), Mercury (0.02 mg/kg), Nickel (1.1 mg/kg)

Samples collected from fill soils within the Matilda Bay Reserve were below all adopted human health and ecological assessment criteria except for zinc which exceeded EIL-A (15 mg/kg) in six samples (four from Site 1 and two from Site 2) samples and EIL-C (70 mg/kg) in one sample (from Site 1).

It should be noted that in this limited-scope assessment, default EIL values were used which assume the most conservative values and do not account for Ambient Background Concentrations (ABCs) and therefore likely overestimate ecological risk. It is however acknowledged that the soil sampling completed is limited in scope and uncertainty remains. In particular:

– CoPC concentrations within fill layers are not typically consistent throughout (e.g. they may originate from different sources).
– Soil sampling was not able to be completed at locations where landside disturbance for the Project may actually occur.

– ACM was not observed, however potential for such presence cannot be precluded[23].

These matters are considered further in the Preliminary CSM (PCSM) at Section 12.

11.2.3 Preliminary waste classification

Soil results were compared to waste classification criteria to inform potential disposal options – the comparison is however based upon limited sampling and is preliminary in nature only i.e. no leachate assessment has been completed or assessed.

As noted in Section 8, an exceedance of waste classification criteria does indicate an unacceptable risk to human or ecological health and does not (in isolation) indicate that the soils require remediation or management (i.e. disposal). Requirements for waste disposal (if any) require assessment when the proposed design has been confirmed and likely construction requirements are better defined. Requirements for further investigation for waste classification purposes can then be determined to inform construction (where such disposal is contemplated).

All reported CoPC concentrations, from Site 1 and Site 2, were below the uncontaminated maximum concentration landfill criteria. All reported CoPC concentrations, from Site 1 and Site 2, were below CT classification criteria except for lead concentrations which exceeded CT Class 1&2 and/or Class 3 criteria in most samples. A summary of these exceedances is provided in Table 19 below.

Table 19 Site 1 and 2 landfill criteria exceedance

Sample Location	Depth	Landfill criteria exceeded			CoPC (recorded concentration)
		CT1&2	CT3	CT4	
Site 1					
GHD_MatBay1_HA01	0.1 – 0.2	✓	✓	-	Lead (26 mg/kg)
	0.2 – 0.8	✓	✓	-	Lead (110 mg/kg)
	0.8 – 1.0	-	-	-	
GHD_MatBay1_HA02	0.1 – 0.3	✓	✓	-	Lead (53 mg/kg)
	0.3 – 0.7	✓	-	-	Lead (8 mg/kg)
	0.7 – 1.0	-	-	-	
GHD_MatBay1_HA03	0.1 – 0.3	✓	-	-	Lead (14 mg/kg)
	0.3 – 0.6	✓	-	-	Lead (7.3 mg/kg)
	0.6 – 1.0	✓	-	-	Lead (7.3 mg/kg)
Site 2					
GHD_MatBay2_HA01	0.1 - 0.3	✓	-	-	Lead (3.4 mg/kg)
	0.3 - 0.5	✓	-	-	Lead (2 mg/kg)
	0.5 - 0.75	✓	-	-	Lead (4.3 mg/kg)
GHD_MatBay2_HA02	0.1 - 0.3	✓	-	-	Lead (5.9 mg/kg)
	0.3 - 0.5	✓	✓	-	Lead (30 mg/kg)
	0.5 - 0.65	✓	-	-	Lead (7.3 mg/kg)
GHD_MatBay2_HA03	0.1 - 0.2	✓	✓	-	Lead (31 mg/kg)
	0.2 - 0.5	✓	-	-	Lead (7.6 mg/kg)
	0.5 - 1	✓	-	-	Lead (3.1 mg/kg)

[23] GHD note that an ACM irrigation pipe (which was not encountered during the site investigation) is known to underly both Sites as indicated by the onsite representative from DBCA.

Exceedance of CT criteria with respect to lead in soils in this preliminary classification indicates that, in the event that disposal of soils offsite to an appropriately licensed facility is contemplated then:

– Further characterisation of actual soils to be disposed would be required (the exact location of landside development was unconfirmed during the current assessment).
– Such further characterisation should include (but not be limited to) consideration of CL criteria including with respect to Australian Standard Leaching Procedures (ASLP) to facilitate such further classification.

12. Preliminary conceptual site model

A Preliminary CSM (PCSM) is a qualitative analysis tool identifying potential contamination sources, migration pathways, exposure routes, and risk to receptors. The PCSM gives consideration to each Site in its current use and potential for future exposure to occur.

Each PCSM has been developed to enable formulation of a robust set of Data Quality Objectives (DQOs) in accordance with ASC NEPM. The PCSM incorporates the body of work completed and review of re-purposed data, prior to the development of this PSI.

The preliminary CSM and associated exposure pathway assessment and identified data gaps requiring further assessment are summarised in Section 12.4.

It is important to note that:

– The development of a PCSM is an iterative process and may require re-assessment and review following collection of additional information as part of the staged approach to assessment of contamination provided in the ASC NEPM.
– Identification of a potential source of contamination does not necessarily result in exposure (and a risk of harm) occurring to a relevant receptor. For a current and/or future use, a complete pathway must exist between a source of contamination and a receptor for exposure to occur and a risk to be present (i.e., complete source-pathway-receptor linkage).

The inputs to each PCSM are provided in below sections and the PCSM is provided in Table 22.

12.1 Areas of potential environmental concern

Based on a review of desktop information, site inspection and interview, the areas of potential environmental concern (APECs) and associated contaminants of potential concerns (CoPC) at each Site are summarised in Table 20.

Table 20 APECs

APEC	CoPC
Site 1	
APEC 1: Landside: Subsurface soils at Site 1 - landside Construction and demolition rubble was observed within the Matilda Bay Reserve soils. The Matilda Bay Reserve may have been constructed from undocumented and uncontrolled fill. Residual impacts associated with this fill may remain in subsurface material. An asbestos pipe is known to be present within the Matilda Bay Reserve. Potential for the presence of ACM fragments within soils at the Sites from past disturbance/damage to ACM pipework cannot be precluded.	Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) PAH Asbestos (primarily in the form of ACM) ASS
APEC 2: Surface water and sediment in Matilda Bay (Site 1) The surface water receives drainage from Hacket Drive, and UWA, as well as potential runoff from the Site. As such, birds, dog and other animal faeces, general runoff, fuel and heavy metals from vehicles may drain into Matilda Bay and the Site. The Water Sports Complex and UWA Boat club are located adjacent to Site 1 and have been used for recreational boating since at least the 1940's. Additionally, the wider Matilda Bay area has been used for recreational boating. Contaminants associated with boat use and maintenance, such as antifouling paints or solvents, may be present in	Bacteria (*Escherichia coli* and *Naegleria fowleri*) Heavy metals TRH BTEXN PAH Organotins PFAS Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous) ASS (including Potential ASS and MBO)

APEC	CoPC
sediments around these structures or been washed into the Matilda Bay. There are known ambient PFAS concentrations in surface water and groundwater across the Perth metropolitan area which includes the UWA and Site 1. Sediments within the Site have the potential to contain reduced inorganic sulfur (as Potential ASS and MBO accumulations). Substances associated with the above may may be present in surface water and accumulate in sediment.	
APEC 3: Groundwater used for irrigation on Site 1. Bore water abstracted offsite is used for irrigation of the Matilda Bay Reserve. The quality of the bore water used for irrigation is unknown. Based on the observed staining across the Matilda Bay Reserve there might be elevated metals or nutrient concentrations in the bore water. Site users may be exposed to the irrigation water used at the Matilda Bay Reserve within Site 1.	Bacteria (*Escherichia coli* and *Naegleria fowleri*) Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous Heavy Metals
Site 2	
APEC 4: Subsurface soils at Site 2 - *landside* Construction and demolition rubble was observed within the Matilda Bay Reserve soils. The Matilda Bay Reserve may have been constructed from undocumented and uncontrolled fill. Residual impacts associated with this fill may remain in subsurface material. An asbestos pipe is known to be present within the Matilda Bay Reserve. Potential for the presence of ACM fragments within soils at the Sites from past disturbance/damage to ACM pipework cannot be precluded. Whilst the UWA is not identified as contaminated on the DWER Contaminated Sites Database its site use (for higher education) is noted under the NPI as a potentially contaminating activity. May have impacted soils in the Western Portion of Site 2.	Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) PAH Asbestos (primarily in the form of ACM) ASS
APEC 5: Surface water and sediment in Matilda Bay (Site 2) The surface water receives drainage from Hacket Drive, and UWA, as well as potential runoff from the Site. As such, birds, dog and other animal faeces, general runoff, fuel and heavy metals from vehicles may drain into Matilda Bay and the Site. The Water Sports Complex and UWA Boat club are located 300 m north of Site 2. The Royal Perth Yacht Club is present approximately 500 m south of Site 2. These facilities and the wider Matilda Bay area has been used for recreational boating. Contaminants associated with boat use and maintenance, such as antifouling paints or solvents, may be present in sediments around these structures or been washed into the Matilda Bay. There are known ambient PFAS concentrations in surface water and groundwater across the Perth metropolitan area which includes the UWA (within Site 2) and Site 2. Sediments within the Site have the potential to contain reduced inorganic sulfur (as Potential ASS and MBO accumulation[24]). Substances associated with the above may may be present in surface water and accumulate in sediment.	Bacteria (*Escherichia coli* and *Naegleria fowleri*) Heavy metals TRH BTEXN PAH Organotins PFAS Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous) ASS (including Potential ASS and MBO)
APEC 6: Groundwater used for irrigation onsite.	Bacteria (*Escherichia coli* and *Naegleria fowleri*)

[24] Although MBO risk is not mapped, the potential for MBO accumulation within Matilda Bay can not be precluded.

APEC	CoPC
Bore water abstracted offsite is used for irrigation of the Matilda Bay Reserve. The quality of the bore water used for irrigation is unknown. Based on the observed staining across the Matilda Bay Reserve there might be elevated metal or nutrient concentrations in the bore water. Site users may be exposed to the irrigation water used at the Matilda Bay Reserve within Site 2. Flora and fauna come in contact with groundwater via ingestion (fauna) and uptake (flora).	Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous Heavy Metals

12.2 Potential migration and exposure pathways

Construction works for development of the proposed ferry landing have the potential cause contamination through mobilisation of contaminants due to disturbance of impacted soils (landside) and sediment within Matilda Bay (e.g. from piling activities), or from spills during construction works. Potential exposure and/or migration pathways considered relevant to the proposed ferry landing development comprise:

- **Exposure:** Inhalation (windblown dust) – during landside construction disturbance (if any) of potentially impacted soils.
- **Exposure:** Dermal contact (impacted soils – during landside construction disturbance [if any], sediment, surface water).
- **Exposure:** Incidental ingestion (construction disturbance with resultant ingestion of impacted soils, surface water, sediment, groundwater by workers undertaking construction activity).
- **Exposure:** Ingestion (ingestion of impacted water by native fauna).
- **Exposure:** Ingestion (human consumption of impacted fauna – recreational fishing).
- **Exposure:** Aquatic plant uptake (from impacted sediments).
- **Migration:** Disturbance of potentially impacted soils, surface water, and sediments:
  - Generation of windblown dust.
  - Subsequent transport via surface water runoff with overland flow and discharge to Matilda Bay or mixing with Swan River resulting in impact to surface water and sediment.
- **Migration:** Landside construction disturbance, leaching of impacts (in soil) to groundwater, lateral transport, discharge and impact to surface water and sediment.
- **Migration:** Waterside construction disturbance, mobilisation/release of contaminants from impacted sediments (if any) to impact surface water and further sediments.

12.3 Potential receptors

Potential receptors identified are detailed below:

- Human health
  - On-site construction workers undertaking intrusive works (landside and waterside dredging/disturbance of fixed structures).
  - Recreational and cultural users of Matilda Bay (beneficial use).
- Ecological
  - Matilda Bay (ecosystem health condition).
  - Flora and fauna (avian and aquatic) at Matilda Bay and Matilda Bay Reserve.

12.4 Preliminary CSM

Table 21 Site 1 PCSM

APEC	CoPC	Exposure pathways	Receptors	Linkage completion	Data Gaps
APEC 1: Subsurface soils at Site 1 (western portion)	Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) PAH Asbestos and ACM ASS	Inhalation (windblown dust) Dermal contact (impacted soils) Incidental ingestion (impacted soils) Leaching and subsequent migration of CoPC to groundwater, surface water and sediments.	On-site intrusive workers Matilda Bay (ecosystem health condition) Threatened fauna (avian and aquatic)	**Potentially complete** Materials associated with construction and demolition were observed along the foreshore of the Matilda Bay Reserve. The Matilda Bay Reserve has recreational value as a park and ecological value as a national reserve. Samples collected from fill soils within the Matilda Bay Reserve were below all adopted human health and ecological assessment criteria except for zinc which exceeded EIL-A (15 mg/kg) in four samples and EIL-C (70 mg/kg) in one sample. However, default EIL values were used which assume the most conservative values and do not account for Ambient Background Concentrations (ABCs) and therefore likely overestimate risk (i.e. results are not necessarily indicative of an unacceptable risk to relevant ecological receptors). It is however acknowledged that the soil sampling completed within Site 1 is limited: CoPC concentrations within fill layers are not typically consistent throughout (e.g. they may have originated from different sources or contain discrete CoPC sources) and soil sampling was not complete where landside disturbance for the Project is going to occur. ACM was not observed, however potential for such presence cannot be precluded[23]. It is assumed some moderate landside soil disturbance will be undertaken during construction of the ferry terminal and associated supporting infrastructure (such as electrical charging infrastructure, toilet block and bus bays). The asbestos irrigation pipe (or other potential asbestos associated with fill) within the Matilda Reserve may be encountered during the construction of the ferry supporting infrastructure. Therefore, this Soil-Pathway-Receptor (SPR) linkage remains potentially complete for potential soil disturbance in construction due to current uncertainty. The risk is however considered likely to be low and acceptable at this time given: – No CoPC concentrations were observed at concentrations that would present an unacceptable risk to human health during the limited soil sampling completed during this investigation. – The asbestos irrigation pipeline can be avoided or managed (as appropriate) during soil disturbance. – Landside works are anticipated to be limited to near-surface soils and likely duration. – Design and construction work to be implemented will adhere to the requirements of an appropriate Construction Environmental Management Plan (or equivalent). – The proposed landside component of development (ferry landing), although within a larger public open space context, is itself a less sensitive from of use.	Limited information regarding the (potential) magnitude and extent of contamination in fill within the Matilda Bay Reserve is known at this time. Soil sampling is at this time considered to be required within the proposed development area (where the landside disturbance is to occur) prior to construction to determine the extent and magnitude of CoPC including potential for the presence of ACM (and confirm current understanding of risk) for the soil to be disturbed. This requirement should be confirmed/refined when the proposed design has been further progressed and likely construction requirements are better defined. Based on current information, as a precautionary measure during landside excavations: – A procedure for managing excavated materials (destined for either reuse onsite or off-Site disposal) should be developed and implemented for the project. Additional analysis and assessment may be required for actual materials excavated. – A procedure for unexpected finds management should be developed and implemented if earthworks result in identification of materials such as (but not limited to) bulk waste materials or ACM within the subsurface. Exceedance of CT criteria with respect to lead in soils in this preliminary classification indicates that, in the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils (including leachate testing) to be disposed would be required.
APEC 2: Surface water and sediment in Matilda Bay (Site 1)	Bacteria (Escherichia coli and Naegleria fowleri) Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous) Organotins	Dermal contact (impacted surface water and sediment) Ingestion (impacted water by native fauna) Ingestion (human consumption of impacted fauna – recreational fishing) Incidental ingestion (impacted surface water and sediment) Migration (impacted sediment)	Recreational and cultural users of the Matilda Bay (beneficial use) On-site intrusive workers Matilda Bay (ecosystem health condition) Flora and fauna (avian and aquatic) at the Matilda Bay Reserve and Matilda Bay.	**Potentially complete** The Site is not mapped as including a known Aboriginal Heritage place. However, the Matilda Bay Reserve (landside portion of the Site) forms part of the Mounts Bay Road foreshore which is a local heritage place and is of recreational value (parkland). Additionally, the eastern portion comprises Matilda Bay (part of the Swan River) which has significant recreational value. Given the overall land-use is not proposed to be changed and remains consistent, though recreational use may increase (ferry users), proposed development is not at this time anticipated to significantly impact the current recreational and cultural uses of the Swan River or the Mounts Bay Road foreshore (i.e. the Matilda Bay Reserve). Surface water quality in the Swan River within and surrounding Site 1 is unknown. Surface water and sediments may have been impacted by lateral migration of CoPC in uncontrolled fill within the Matilda Bay Reserve although limited soil testing (Section 10) suggests CoPC concentrations within soils do not currently pose an unacceptable risk to human health or ecological receptors. Additionally, as Matilda Bay is an urban surface water catchment and is known to receive run off from Hackett Drive and the UWA, PFAS from surface water run off directed into the Swan River may impact surface water. Daily tidal flushing of the Swan River is however likely to dilute potential PFAS impacts in surface water. The proposed development is consistent with current and ongoing use of Site 1 (landside) and surrounds. Based on current information and anticipated construction disturbance, the risk posed by surface water is considered likely to be low and acceptable at this time with respect relevant receptors (human health, the environment and environmental values of the Swan River). The area directly north of the Site has historically been used for boating operations. Additionally, Matilda Bay has been used for recreational boating for decades. Therefore, there is the potential for these operations to have impacted surface water and sediments at the Site. Disturbance of sediments (i.e. piling installation) may release CoPC within sediments into the surrounding aquatic environment during construction. Therefore, this Soil-Pathway-Receptor (SPR) linkage remains potentially complete due to the potential for sediment disturbance. Due to current uncertainty, it cannot at this time be precluded that sediment quality is capable of posing a risk to relevant receptors.	Surface water quality at Site 1 is not known at this time. However, a programme of water quality monitoring at Site 1 is being undertaken to characterise baseline surface water quality at Site 1 and reference points. The information collected during this surface water sampling will be used to address this data gap*. Results of such monitoring require review when the proposed design has progressed and likely construction requirements are better defined: in particular with respect to the extent of waterside disturbance. Sediment quality is also unknown and given the length of time the eastern portion of Site 1 has been used for boating activities (a potentially contaminating activity) and observed fill within the Matilda Bay Reserve; there is potential for sediments to be impacted and present unacceptable risk to the surrounding environment (Matilda Bay) if disturbed during development of the Site. Sampling is at this time considered to be required within the proposed development area prior to construction to determine sediment quality and the potential risk to the receiving environment (Matilda Bay), if construction is anticipated to disturb sediments. This preliminary assessment requires confirmation when: – The design has progressed and likely construction requirements are better defined, in particular with respect to the extent of waterside disturbance (such as from pile installation). – Data to characterise baseline surface water quality is available. Subject to the above, additional management measures may also be required during landside development activities to mitigate the potential for sedimentation and runoff to impact the adjacent surface water. * *excluding bacteria (Escherichia coli and Naegleria fowleri)*

APEC	CoPC	Exposure pathways	Receptors	Linkage completion	Data Gaps
	PAH PFAS ASS (Potential ASS and MBO)				
APEC 3: Groundwater used for irrigation on Site 1.	Bacteria (*Escherichia coli* and *Naegleria fowleri*) Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous Heavy Metals	Dermal contact (impacted groundwater) Ingestion (impacted water by native fauna) Incidental ingestion (impacted groundwater) Plant uptake (from impacted soils or groundwater)	Recreational and cultural users of the Matilda Bay (beneficial use) Threatened fauna (terrestrial)	**Incomplete** Bore water is used for irrigation on the Matilda Bay Reserve. Based on staining observed during site inspections, potential for bore water to have elevated CoPC concentrations cannot entirely be precluded. The groundwater quality and long-term impacts of irrigation with this water are unknown (to GHD) at this time. As irrigation occurs frequently the potential for site users (current and future) to come in contact with irrigation water used within Site 1 is high. Birds were observed within the Matilda Bay Reserve during the Site inspections, and they may also be exposed to irrigation water. However, Site 1 is located within a groundwater licensed area (DBCA) which is likely for the purpose of irrigation of the Matilda Bay Reserve. Therefore, groundwater quality of the bore water used for irrigation is likely to be known and monitored by the license holder (DBCA) under its license conditions. The proposed development is consistent with current and ongoing use of Site 1 (landside) and surrounds. Based on current information and anticipated construction disturbance, current irrigation practices at the Site are not at this time considered likely to pose an unacceptable risk to relevant receptors (human health, the environment and environmental values of the Swan River).	Bore water quality is not known[25] at this time. However, based on current information it is not considered likely that this data gap requires resolution at this time for the proposed development. This should be reviewed and confirmed when the proposed design has been confirmed, and likely construction requirements are better defined.

Table 22 Site 2 PCSM

APEC	CoPC	Exposure pathways	Receptors	Linkage completion	Data Gaps
APEC 4: Subsurface soils at Site 2 (western portion)	Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) PAH Asbestos and ACM ASS	Inhalation (windblown dust) Dermal contact (impacted soils) Incidental ingestion (impacted soils) Leaching and subsequent migration of CoPC to groundwater, surface water and sediments.	On-site intrusive workers Matilda Bay (ecosystem health condition) Threatened fauna (avian and aquatic)	**Potentially complete** Although the UWA (western portion of Site 2) is listed under the NPI as potentially contaminating, limited soils near the UWA are to be disturbed based on the current understanding of ferry terminal development or supporting infrastructure. The land use of the UWA and Hackett Drive portion of Site is unlikely to change post-development, with soil-disturbance limited to near-surface soils during construction of bus bays and trenching for underground services. Additionally, the UWA and Hackett Drive are mostly comprised of sealed surfaces which restricts access to any potentially contaminated soils. Therefore, the risk of exposure of fill beneath the UWA and Hackett Drive to site users (recreational or intrusive) is not considered likely. Additionally, as the surface of the UWA is sealed the SPR to flora and fauna is considered incomplete. Materials associated with construction and demolition were observed within subsurface soils of the Matilda Bay Reserve portion of Site 2. CoPC concentrations in soils sampled during this investigation were below adopted human health criteria. ACM was not observed, however potential for such presence cannot be precluded[23]. It is assumed some moderate landside soil disturbance will be undertaken during construction of the ferry terminal and associated supporting infrastructure (such as electrical charging infrastructure, toilet block and bus bays). The asbestos irrigation pipe (or other potential asbestos associated with fill) within the Matilda Reserve may be encountered during the construction of the ferry supporting infrastructure. Matilda Bay Reserve has recreational value as a park and ecological value as a national reserve. Samples collected from fill soils within the Matilda Bay Reserve were below all adopted human health and ecological assessment criteria except for zinc which exceeded EIL-A (15 mg/kg) in two samples. However, default EIL values were used, which assume the most conservative values and do not account for ABCs and therefore likely overestimates risk (i.e. results are not necessarily indicative of an unacceptable risk to relevant ecological receptors). It is however acknowledged that the soil sampling completed within Site 2 is limited, CoPC concentrations within fill layers are not typically consistent throughout (i.e. they have different sources) and soil sampling was not complete where landside disturbance for the Project is going to occur. Therefore, this SPR linkage remains potentially complete for potential soil disturbance in construction due to current uncertainty. The risk is however considered likely to be low and acceptable at this time given: – No CoPC concentrations were observed at concentrations that would present an unacceptable risk to human health during the limited soil sampling completed during this investigation. – The asbestos irrigation pipeline can be avoided or managed (as appropriate) during soil disturbance. – Landside works are anticipated to be limited to near-surface soils and likely duration. – Design and construction work to be implemented will adhere to the requirements of an appropriate Construction Environmental Management Plan (or equivalent).	Limited information regarding the (potential) magnitude and extent of contamination in fill within the Matilda Bay Reserve is known at this time. Soil sampling is at this time considered to be required within the proposed development area (where the landside disturbance is to occur) prior to construction to determine the extent and magnitude of CoPC including potential for the presence of ACM (and therefore potential risks) in the soil to be disturbed. This requirement should be confirmed/refined when the proposed design has been confirmed and likely construction requirements are better defined. Based on current information, as a precautionary measure during landside excavations: – A procedure for managing excavated materials (destined for either reuse onsite or off-Site disposal) should be developed and implemented for the project. Additional analysis and assessment may be required for actual materials excavated. – A procedure for unexpected finds management should be developed and implemented if earthworks result in identification of materials such as (but not limited to) bulk waste materials or ACM within the subsurface. Exceedance of CT criteria with respect to lead in soils in this preliminary classification indicates that, in the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils to be disposed would be required.

[25] Bore water quality is not known to GHD at this time, however is likely to be known and monitored by the license holder (DBCA) under its license conditions.

APEC	CoPC	Exposure pathways	Receptors	Linkage completion	Data Gaps
				– The proposed landside component of development (ferry landing), although within a larger public open space context, is itself a less sensitive from of use.	
APEC 5: Surface water and sediment in Matilda Bay (Site 2)	Bacteria (Escherichia coli and Naegleria fowleri) Heavy metals Total recoverable hydrocarbons (TRH) Benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN) Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous) Organotins PAH PFAS ASS (Potential ASS and MBO)	Dermal contact (impacted surface water and sediment) Ingestion (impacted water by native fauna) Ingestion (human consumption of impacted fauna – recreational fishing) Incidental ingestion (impacted surface water and sediment) Migration (impacted sediment)	Recreational and cultural users of the Matilda Bay (beneficial use) On-site intrusive workers Matilda Bay (ecosystem health condition) Flora and fauna (avian and aquatic) at the Matilda Bay Reserve and Matilda Bay.	**Potentially complete** The Site is not mapped as including a known Aboriginal Heritage place. However, the Matilda Bay Reserve (central portion of the Site) forms part of the Mounts Bay Road foreshore which is a local heritage place and is of recreational value (parkland). An archaeological site is present in the north-east corner (along the foreshore) of the Matilda Bay Reserve which may affect the proposed developed within that area of the foreshore without further approvals[26]. Additionally, the eastern portion comprises Matilda Bay (part of the Swan River) which has significant recreational value. Given the over-all land-use is not proposed to be changed and remains consistent, though recreational use may increase (ferry users), the proposed development is not anticipated to significantly impact the current recreational and cultural uses of the Swan River or the Mounts Bay Road foreshore (i.e. the Matilda Bay Reserve) dependent upon planning approval near the archaeological site. The western portion of Site 2 consists of UWA which contains several other heritage sites (Table 7) however, based on the current proposed site (development) boundary this area is not indicated to be disturbed as part of the Project. Surface water quality in the Swan River within and surrounding Site 2 is unknown. Surface water and sediments may have been impacted by lateral migration of CoPC in uncontrolled fill within the Matilda Bay Reserve although limited soil testing (Section 10) suggests CoPC concentrations within soils do not currently pose an unacceptable risk to human health or ecological receptors. Additionally, as Matilda Bay is an urban surface water catchment and is known to receive run off from Hackett Drive and the UWA, PFAS from surface water run off directed into the Swan River may impact surface water. Daily tidal flushing of the Swan River is however likely to dilute potential PFAS impacts in surface water. The proposed development appears to be current and ongoing use of Site 2 (landside) and surround. Based on current information and anticipated construction disturbance, the risk posed by surface water is considered likely to be low and acceptable at this time with respect relevant receptors (human health, the environment and environmental values of the Swan River). Matilda Bay has been used for recreational boating for decades in particular the Water Sports Complex, UWA Boat Club (north of Site 2) and Royal Perth Yacht Club (south of Site 2). Therefore, there is the potential for these operations to have impacted surface water and sediments at the Site. Disturbance of the sediments (piling installation) may release CoPC within sediments into the surrounding aquatic environment. Therefore, this Soil-Pathway-Receptor (SPR) linkage remains potentially complete due to the potential for sediment disturbance. Due to current uncertainty, it cannot at this time be precluded that sediment quality is capable of posing a risk to relevant receptors.	Surface water quality at Site 2 is not known at this time. However, a programme of water quality monitoring at Site 2 is being undertaken to characterise baseline surface water quality at Site 2 and reference points. The information collected during this surface water sampling will be used to address this data gap*. Results of such monitoring require review when the proposed design has been confirmed, and likely construction requirements are better defined. Sediment quality is also unknown and given the length of time the eastern portion of Site 2 has been used for boating activities (a potentially contaminating activity) and observed fill within the Matilda Bay Reserve; there is potential for sediments to be impacted and present unacceptable risk to the surrounding environment (Matilda Bay) if disturbed during development of the Site. Sampling is at this time considered to be required within the proposed development area prior to construction to determine sediment quality and the potential risk to the receiving environment (Matilda Bay). This requirement should be confirmed/refined when the proposed design has been confirmed, and likely construction requirements are better defined. ** excluding bacteria (Escherichia coli and Naegleria fowleri)*
APEC 6: Groundwater used for irrigation on Site 2.	Bacteria (*Escherichia coli* and *Naegleria fowleri*) Inorganics: Ammonium, nitrate, nitrite, organic nitrogen and ammonia as N Inorganic and organic phosphorous (total phosphorous Heavy Metals	Dermal contact (impacted groundwater) Ingestion (impacted water by native fauna) Incidental ingestion (impacted groundwater) Plant uptake (from impacted soils or groundwater)	Recreational and cultural users of the Matilda Bay (beneficial use) Threatened fauna (terrestrial)	**Incomplete** Bore water is used for irrigation on the Matilda Bay Reserve. Based on staining observed during site inspections, potential for bore water to have elevated CoPC concentrations cannot entirely be precluded. The groundwater quality and long-term impacts of irrigation with this water are unknown (to GHD) at this time. As irrigation occurs frequently the potential for site users (current and future) to come in contact with irrigation water used within Site 2 is high. Birds were observed within the Matilda Bay Reserve during the Site inspections, and they may also be exposed to irrigation water. However, Site 2 is located within a groundwater licensed area (DBCA) which is likely for the purpose of irrigation of the Matilda Bay Reserve. Therefore, groundwater quality of the bore water used for irrigation is likely to be known and monitored by the license holder (DBCA) under its license conditions. The proposed development is currently indicated to be consistent with current and ongoing use of Site 2 (landside) and surrounds. Based on current information and anticipated construction disturbance, current irrigation practices at the Site are not at this time considered likely to pose an unacceptable risk to relevant receptors (human health, the environment and environmental values of the Swan River).	Bore water quality is not known[27] at this time. However, based on current information it is not considered likely that this data gap requires resolution at this time for the proposed development. This should be reviewed and confirmed when the proposed design has been confirmed, and likely construction requirements are better defined.

[26] Which are outside the scope of this investigation.
[27] Bore water quality is not known to GHD at this time, however is likely to be known and monitored by the license holder (DBCA) under its license conditions.

13. Conclusions and recommendations

13.1 Site understanding and CSM Summary

Both the preferred Site 2 and Site 1 are located within the Matilda Bay Reserve and foreshore, a class 'A' reserve (DBCA) which is comprised of a grassed and tree vegetated areas of predominantly public open space with recreational facilities, running to south along the Swan River and established circa 1920.

Materials associated with uncontrolled fill were observed within the Matilda Bay Reserve foreshore area (Site 1) and subsurface soils (Site 2). Site 2 is partially comprised of Hackett Drive and a UWA carpark in the western portion of Site 2. Stormwater drains were observed within the foreshore of the Matilda Bay Reserve at Site 1 and Site 2 which likely discharge into the Matilda Bay (and therefore the Swan River) (Figure 2).

Neither Site is currently classified under the CS Act. Exceedances of EIL-A (six samples) and EIL-C (one sample) were observed during limited soil testing completed within Site 1 (four samples) and Site 2 (two samples). However, default EIL values were used, which assume the most conservative values and do not account for ABCs and therefore likely overestimates risk (i.e. results are not necessarily indicative of an unacceptable risk to relevant ecological receptors). Uncertainty remains however due to the limited nature of sampling undertaken, including with respect to potential for the presence of ACM.

Matilda Bay has been used for recreational boating purposes (a potentially contaminating activity, DER 2021) for decades including the Water Sports Complex, UWA boat club (both north of Site 1) and Royal Perth Yacht Club (south of Site 2) which indicates potential for sediments within Matilda Bay to be impacted by historical land use (heavy metals, metals, hydrocarbons and antifouling paints). Disturbance of the sediments (piling installation) may release CoPC within sediments into the surrounding aquatic environment.

Abstracted groundwater is used for irrigation within the Matilda Bay Reserve portions of the Sites. Bore water quality is not known (to GHD) at this time however is likely to be known and monitored by the license holder (DBCA) under its license conditions. Based on current information and anticipated construction disturbance, irrigation practices at the Site are not at this time considered likely to pose an unacceptable risk to relevant receptors (human health, the environment and environmental values of the Swan River).

Construction works for development of the potential ferry terminal have the potential cause contamination through mobilisation of unknown contaminants, disturbance of sediment on the riverbed (from piling activities), and spills during construction works. It has been assumed that a moderate amount of shallow (< 1 m) landside soil disturbance will occur during construction of the proposed ferry terminal and associated supporting infrastructure (such as electrical charging infrastructure, toilet block and bus bays. However, the magnitude of sediment disturbance will depend on final construction design and methodology.

Based on current information, the preliminary CSM (PCSM) identifies that a source-pathway-receptor (SPR) linkage concerning potential interaction with contaminated soils at the landside portion of the Site would potentially be complete with respect to relevant receptors comprising:

– On-site intrusive workers
– Matilda Bay (ecosystem health condition)
– Threatened fauna (avian and aquatic)

Based on the results of this investigation: the risk to identified receptors is considered to be low and acceptable at this time, however further assessment is considered to be required to confirm this (due to remaining uncertainty).

The PCSM also identifies a potentially complete SPR linkage concerning potential surface water and sediment within the waterside portion of the Sites with respect to relevant receptors comprising:

– On-site construction workers undertaking intrusive works
– Recreational and cultural users of Matilda Bay (beneficial use).
– Matilda Bay (ecosystem health condition).
– Flora and fauna (avian and aquatic) at Matilda Bay and Matilda Bay Reserve.

Based on current information and anticipated construction disturbance, the risk posed by surface water is considered likely to be low and acceptable at this time with respect relevant receptors (human health, the environment and environmental values of the Swan River). However, due to current uncertainty, it cannot at this time be precluded that sediment quality is capable of posing a risk to relevant receptors.

It should be noted that this preliminary assessment assumes that:

– Landside works are anticipated to be limited to near-surface soils and likely duration.
– Design and construction work to be implemented will adhere to the requirements of an appropriate Construction Environmental Management Plan (or equivalent).
– The proposed landside component of development (ferry landing), although within a larger public open space context, is itself a less sensitive from of use.

13.2 Conclusions

Based on current information,

– Risks posed by construction disturbance for the proposed ferry landing development are at this time considered likely to low and acceptable for relevant receptors as no CoPC concentrations were observed above the adopted human health assessment criteria and surface water quality. However, this is subject to uncertainty as:
    - The limited scope soil sampling is subject to remaining uncertainty (in particular CoPC concentrations within fill layers are not typically consistent throughout and soil sampling was not complete where landside disturbance for the Project is going to occur). ACM was not observed, however potential for such presence cannot be precluded.
    - Surface water quality at the Site is currently unknown. A programme of water quality monitoring at the Site is however being undertaken to characterise baseline surface water quality at the Site and therefore address this data gap.
– In the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils (including leachate assessment) to be disposed would be required.
– Bore water quality is not known (to GHD). However, based on current information and anticipated construction disturbance, irrigation practices at the Site are not at this time considered likely to pose an unacceptable risk to relevant receptors.
– It cannot at this time be precluded that sediment quality is capable of posing a risk to relevant receptors.

Recommendations are provided below in relation to these matters.

13.3 Recommendations

Based on the above conclusions, it is recommended that:

– Soil sampling is undertaken within the proposed development area (where the landside disturbance is to occur) prior to construction to determine the extent and magnitude of CoPC (and confirm current understanding of risk) for the soils to be disturbed. This requirement should be confirmed/refined when the proposed design has been confirmed, and likely construction requirements are better defined.
– With respect to the above:
    - In the event that disposal of soils offsite to an appropriately licensed facility is contemplated then further characterisation of actual soils to be disposed should also be undertaken. Such further characterisation should include (but not be limited to) consideration of Concentration Limit (CL) criteria including with respect to Australian Standard Leaching Procedures (ASLP) to facilitate such further classification.
    - Aesthetic considerations should also be considered with respect to disturbance of fill and its reinstatement in construction works (due to presence of construction and demolition type materials which may be exposed).

- Ongoing surface water quality monitoring results are assessed to understand baseline surface water quality and confirm the current understanding of risk posed by construction disturbance for the proposed ferry landing development.
- Sediment sampling is undertaken within the proposed development area prior to construction to determine sediment quality and the potential risk to the receiving environment (Matilda Bay). This requirement should be confirmed/refined when the proposed design has been confirmed and likely construction requirements are better defined. In particular, consideration should be given to the extent of waterside disturbance (such as from pile installation/fixed jetty construction or other waterside features).
- When the proposed design has been confirmed and likely construction requirements are better defined, confirm the preliminary assessment outcome that no action is needed to address the current data gap concerning groundwater quality.
- As a precautionary measure, during landside excavations, development of:
  - A procedure for managing excavated materials (destined for either reuse onsite or off-Site disposal), with allowance for additional soils characterisation (if required) and measures to mitigate the potential for sedimentation and runoff from excavations to impact the adjacent surface water environment.
  - A procedure for unexpected finds management to be implemented if earthworks result in identification of materials not identified based on assessment completed to date. Such finds may include (but not be limited to) bulk waste materials, asbestos or ACM, and redundant subsurface infrastructure.

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Appendices

Appendix A

Figures

Paper Size ISO A4

0 25 50 75 100

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

N

GHD

Public Transport Authority of Western Australia
Swan River Ferry Expansion
PSI & Swan River WQ Monitoring

Matilda Bay Option 1 and Option 2 - Site Boundary and Soil Sampling Locations

Project No. 12658388
Revision No. 0
Date 23/05/2025

FIGURE 1

G:\61\12658388\GIS\Maps\Working\12658388 - Swan River Ferry Expansion\12658388_Working.aprx - 12658388_007_MatildaBaySoilSamplingLocations_Rev0
Print date: 23 May 2025 - 12:05

Data source: Landgate_Subscription_Imagery\WANow: . Created by: dchan3

Paper Size ISO A4

0 25 50 75 100

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

N

GHD

Public Transport Authority of Western Australia
Swan River Ferry Expansion
PSI & Swan River WQ Monitoring

Project No. 12658388
Revision No. 0
Date 23/05/2025

Matilda Bay Option 1 and Option 2 - Site Features

FIGURE 2

G:\61\12658388\GIS\Maps\Working\12658388 - Swan River Ferry Expansion\12658388_Working.aprx - 12658388_008_MatildaBayOption1&2 _Site features_Rev0
Print date: 23 May 2025 - 12:07

Data source: Landgate_Subscription_Imagery\WANow: . Created by: dchan3

Appendix B

Desktop searches and mapping

PROPERTY SETTING

MAP 1.1

Sensitive Receptors and Features of Interest

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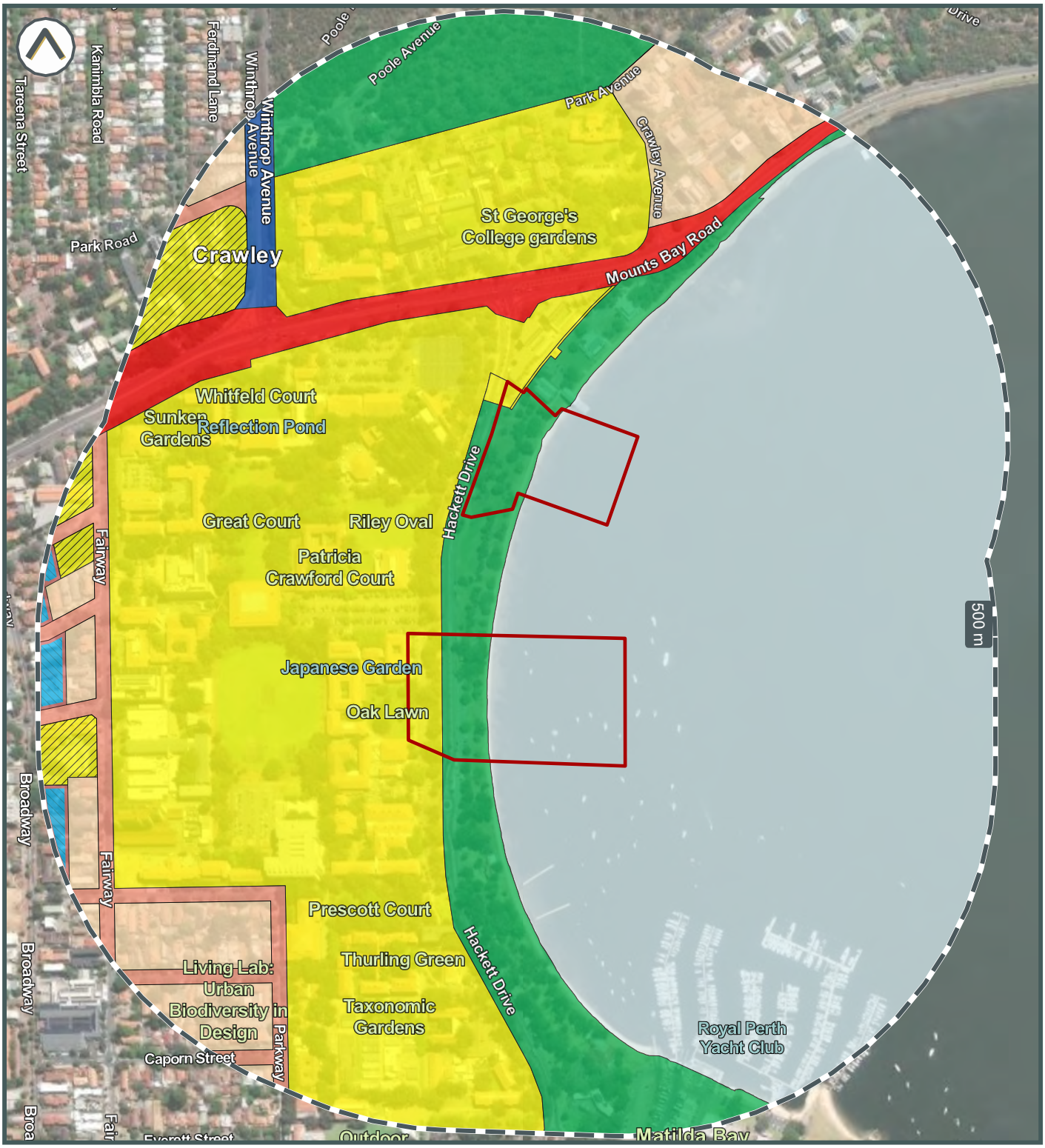
MAP 1.2a

Zoning



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Subject area

Zone – Planning Scheme
- Neighbourhood mixed use
- Public purposes
- Residential

Zone – Regional Scheme
- Other regional roads
- Primary regional roads
- Public purposes – university

- Public purposes – Water Authority of WA
- Regional open space
- Urban
- Waterways

0 60 120 180 240 300m

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Planning Overlays

MAP 1.2b

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- Subject area
- Overlay
  - LPS Other Categories – Areas – Special Control Area
  - Local Planning Scheme Boundary
  - Local Planning Scheme R-Code Boundary
  - Region Planning Scheme Boundary
  - Region Scheme Special Areas
  - Region Scheme Zones and Reserves

0 60 120 180 240 300m

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Heritage

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Subject area

State and Local Heritage Registers

- State Heritage Register
- Aboriginal Heritage Places
- Heritage Register

0 40 80 120 160 200m

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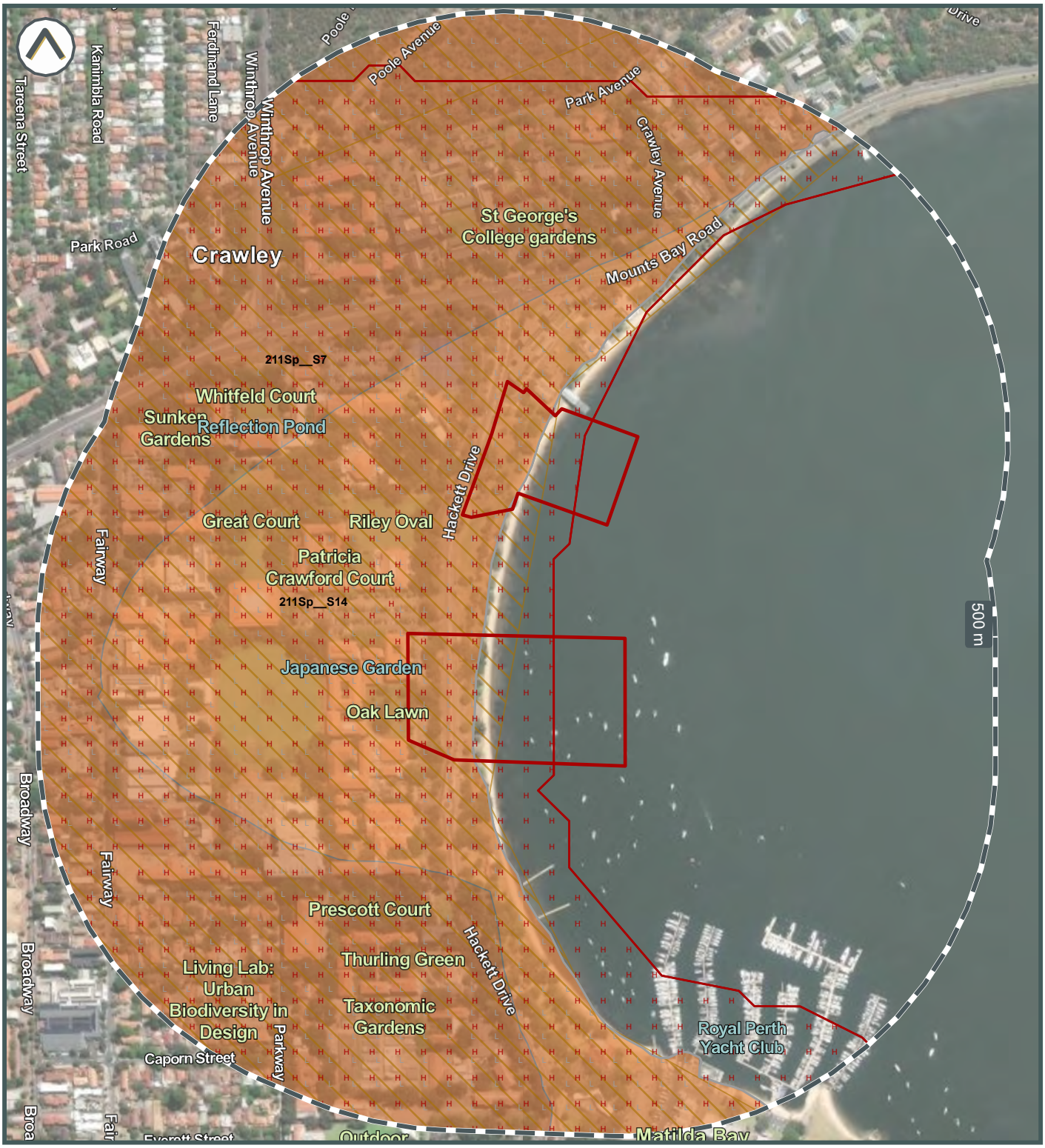
MAP 1.4a

Soil Landscape and Salinity



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Subject area

Radon Level (Bq/m3)
5–19

Soil Salinity
Low
High hazard or risk

Code
211Sp__S14
211Sp__S7

0 60 120 180 240 300m

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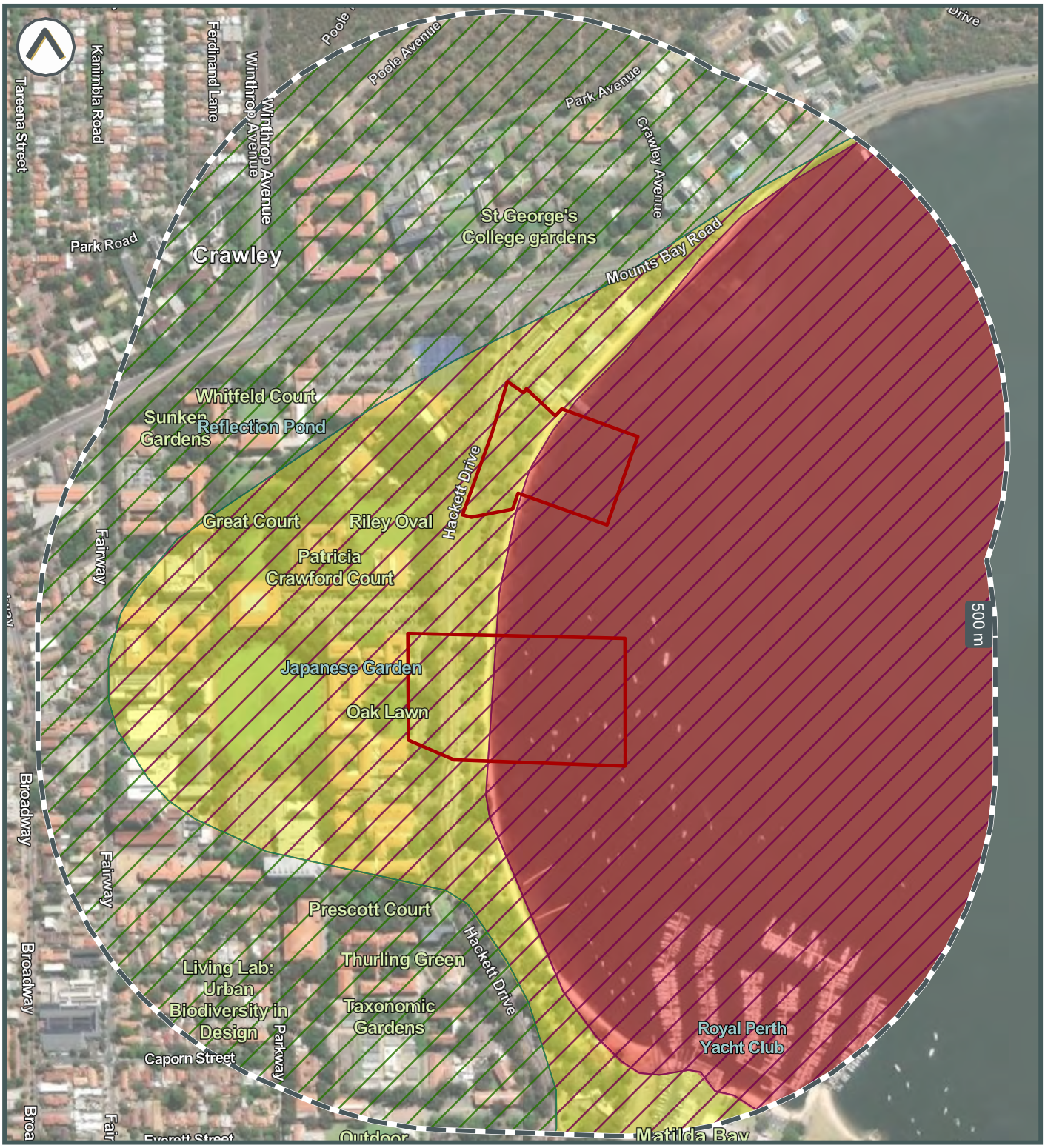
Acid Sulfate Soils

MAP 1.4b



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Subject area

Atlas of Australian Acid Sulfate Soils
- High Probability of occurrence
- Extremely low probability of occurrence

Coastal Acid Sulfate Soils
- High to moderate risk
- Moderate to low risk

0 60 120 180 240 300m

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PROPERTY SETTING

Geology and Topography

MAP 1.5

Subject area
Topographic Contour (m)

Geology Code
S14

S7
Water

0 60 120 180 240 300m

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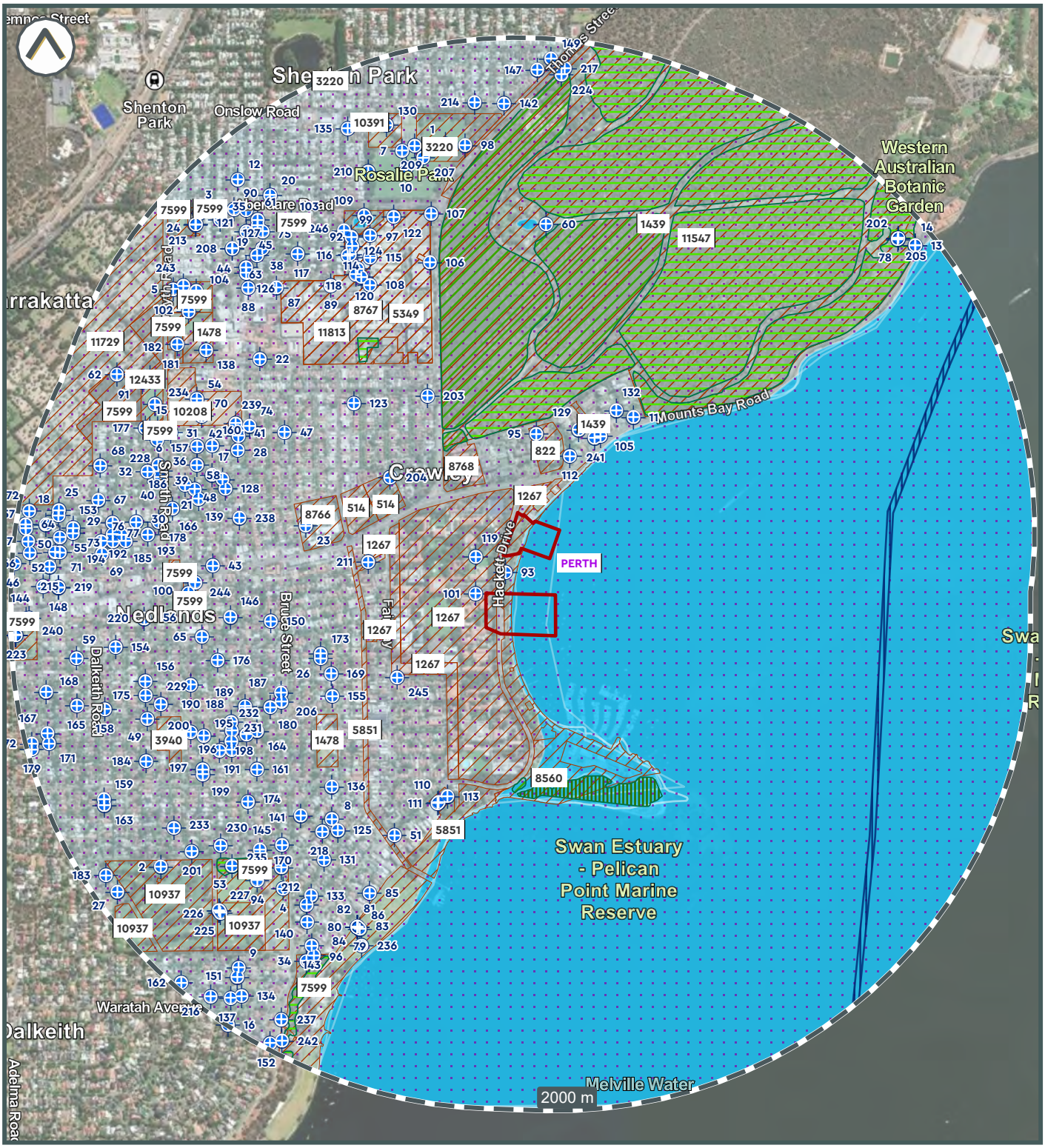
HYDROGEOLOGY

MAP 2.1

Groundwater Dependent Ecosystems & Hydrogeology Constraints



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Subject area

Groundwater bores

Ecosystems that rely on the Surface expression of Groundwater

High potential GDE – from national assessment

Ecosystems that rely on Subsurface presence of Groundwater

High potential GDE – from national assessment

Moderate potential GDE – from national assessment

Low potential GDE – from national assessment

Wetlands

Instrument

Groundwater Licence

Groundwater Protection Areas

Aquifer type

Porous, extensive highly productive aquifers

0 210 420 630 840 1,050m

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HYDROGEOLOGY

Groundwater and Other Bores

MAP 2.2

Subject area

Other borehole/monitoring well location

Salinity Class

Non-Saline (<3000mg/L)

0 210 420 630 840 1,050m

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ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.1

Contaminated Land Public Register

Subject area

Contaminated Land Public Register (EPA)

Remediated for restricted use

0 110 220 330 440 550m

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MAP 3.2

Licences, Approvals & Assessments

Subject area

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0 110 220 330 440 550m

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ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.3a

Sites Regulated by Other Jurisdictional Body

Subject area

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0 210 420 630 840 1,050m

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ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.3b

Other Potential Hazard Sources

Subject area NPI Facilities

0 60 120 180 240 300m

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POTENTIALLY CONTAMINATED AREAS

Current Potentially Contaminating Activities (PCAs)

MAP 4.1

Subject area

Potentially Contaminating Activities

Depots and Storage Yards

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.

0 40 80 120 160 200m

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MAP 5.1

Fire Hazards

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Subject area

Bushfire Prone Areas

Bushfire Prone Area 1

0 60 120 180 240 300m

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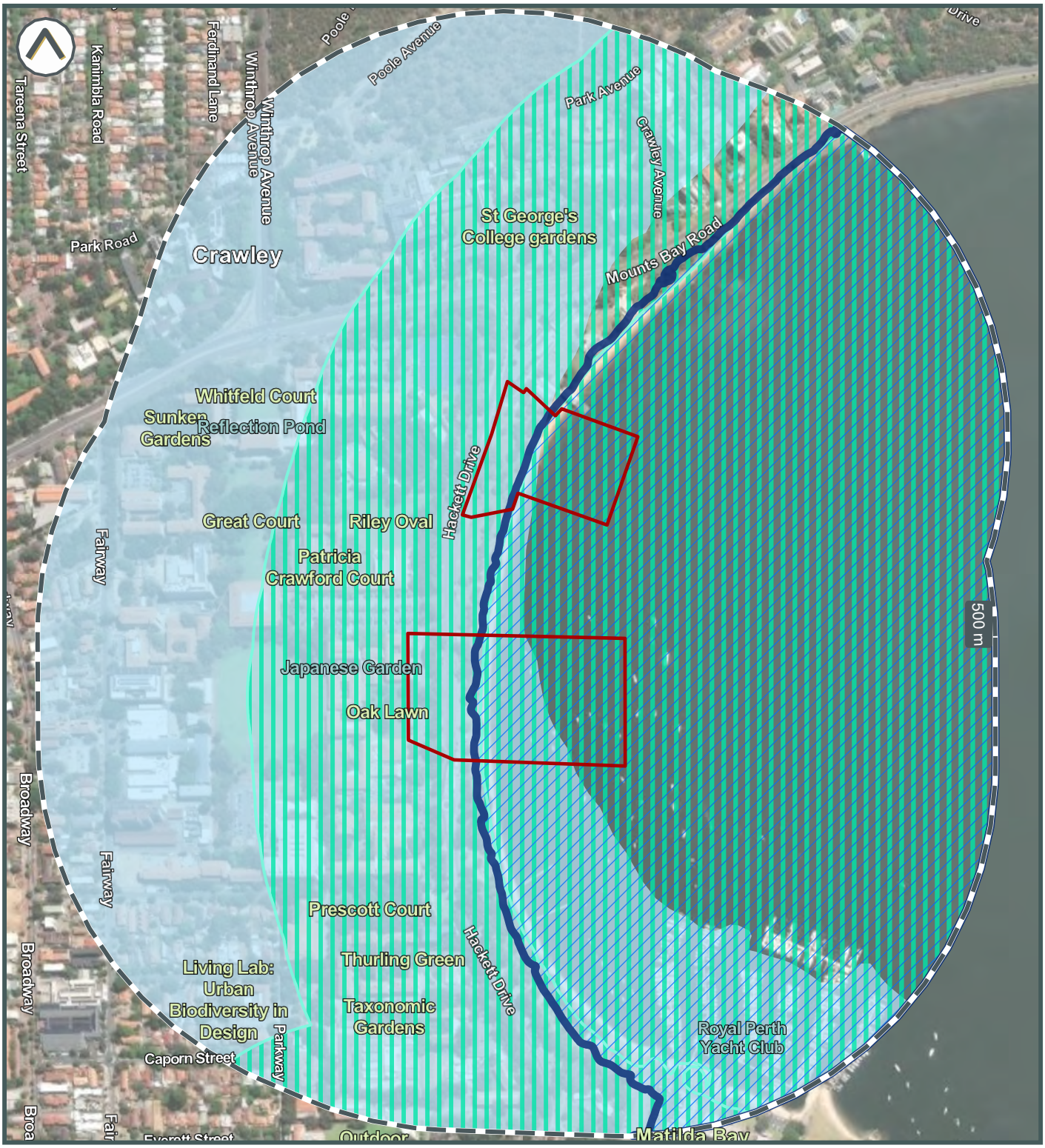
MAP 5.2

Flood Hazard



Subject area

Category
Flood Prone Area

Floodplain

Type
<3% of the map unit has a moderate to high hazard

0 60 120 180 240 300m

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NATURAL HAZARDS

Erosion Hazard

MAP 5.3

Subject area

Wind Erosion Risk
- Very High
- Moderate

Water Erosion Risk
- Negligible

Landslip Erosion Risk
- Negligible

0 60 120 180 240 300m

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Insight

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Environmental Information Report

Matilda Bay Site (Swan River Ferry Expansion)
Crawley, WA
23 Apr 2025

Report nº:
LI-4719 DDR

Understanding your report

Thank you for ordering your report from Land Insight. If you have any feedback, questions or queries, please get in touch with us at orders@landinsight.co.

Your Report has been produced by Land Insight and contains information related to current and historical land use information, environmental risks and hazards.

The information presented in this report includes Land Insights' comprehensive research into current and historical land use derived from Land Insight's proprietary National Land Use Atlas (NLUA), environmental risk information and data available from public databases, third party providers, local and state authorities. The report also includes detailed property and soil setting information, hydrogeology, identification of potential pollution and contamination along with ground and natural hazards.The records identified are presented within a 200 to 2000m radius (buffer zone) from the boundaries of the Property searched, depending on the screened constraint. The report is separated and grouped into easy to navigate sections as per Summary below:

Section 1	**PROPERTY SETTING**	Sensitive Receptors, Planning Controls, Zoning, Heritage, Soil and Land Information, Geology and Topography
Section 2	**HYDROGEOLOGY AND GEOTECHNICAL**	Groundwater Bores and Other Borehole investigations, Groundwater Dependent Ecosystems (GDE), Aquifer and Wetland, Other Hydrogeology information.
Section 3	**ENVIRONMENTAL REGISTERS, LICENCES AND INCIDENTS**	Contaminated Land Public Register, Licences, Audits and Orders, Sites Regulated by Other Jurisdictional Body (Former Gaswork sites / PFAS sites, UXO Areas), Historical Landfills, Derelict Mines and National Pollutant Inventory (NPI).
Section 4	**POTENTIALLY CONTAMINATED AREAS**	Potentially Contaminating activities (Industries, businesses and activities that may cause contamination), Historical Potentially Contaminating activities and Historical Land Use.
Section 5	**NATURAL HAZARDS**	Erosion hazard, Flood hazards, Bushfire prone land and Bushfire history.

This report includes data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact orders@landinsight.co.

This report does not include information derived from a physical inspection. It is important to note that a site inspection can present information relevant to other risks and hazards that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators and data sources, the data displayed within this report is only current from date of production. While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information and/or data provided.

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Report Summary

	Dataset name	Onsite	On Buffer	Buffer Distance
Section 1 - Property Setting				
1.1	Sensitive Receptors	✓	✓	200m
1.2a	Planning Controls *(Zoning)*	✓	✓	500m
1.2b	Planning Overlays *(Environmental Planning Instruments)*	✓	✓	500m
	Planning Overlays *(Other Planning Information)*			500m
1.3	Heritage *(State and Local Heritage)*	✓	✓	200m
	Heritage *(Australian and World Heritage Database Register)*			200m
1.4a	Soil and Land Use Information *(Soil Landscape)*	✓	✓	500m
	Soil and Land Use Information *(Soil Salinity)*	✓	✓	500m
	Soil and Land Use Information *(Radon)*	✓	✓	500m
1.4b	Acid Sulfate Soil *(State and Local Acid Sulfate Soil Registers)*	✓	✓	500m
	Acid Sulfate Soil *(National Acid Sulfate Soil Registers)*	✓	✓	500m
1.5	Geology and Topography *(Geology)*	✓	✓	500m
	Geology and Topography *(Naturally Occurring Asbestos Potential NOA)*			500m
Section 2 – Hydrogeology and Geotechnical				
2.1	GDE & Hydrogeology Constraints *(Aquifer Type)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(Groundwater Protection Areas)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(Wetlands)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(GDE Surface)*		✓	2000m
	GDE & Hydrogeology Constraints *(GDE Subsurface)*		✓	2000m
	GDE & Hydrogeology Constraints *(Groundwater Licences)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(Groundwater Bores)*		✓	2000m
2.2	Groundwater and Other Bores *(Groundwater Restricted Use Zones)*			2000m
	Groundwater and Other Bores *(Groundwater Salinity)*	✓	✓	2000m
	Groundwater and Other Bores *(Other Known Boreholes Investigations)*		✓	2000m
Section 3 - Environmental Registers, Licences and Incidents				
3.1	Contaminated Land Public Register (Contaminated Sites)		✓	1000m
3.2	Licences, Approvals & Assessments *(Licences)*			1000m
	Licences, Approvals & Assessments *(Audits)*			1000m
	Licences, Approvals & Assessments *(Clean up Notices, Penalty Notices and Orders)*			1000m
3.3a	Sites Regulated by other Jurisdictional Body (*Contaminated Legacy Areas)*			2000m
	Sites Regulated by other Jurisdictional Body (*Defence, Military Sites and UXO Areas)*			2000m
	Sites Regulated by other Jurisdictional Body (*Former Gasworks Sites)*			2000m
	Sites Regulated by other Jurisdictional Body (*PFAS Sites)*			2000m
3.3b	Other Potential Hazard Sources (*Mines and Quarries)*			500m
	Other Potential Hazard Sources (*Landfills)*			500m
	Other Potential Hazard Sources (*National Pollutant Inventory NPI)*	✓	✓	500m
Section 4 - Potentially Contaminated Areas				
4.1	Potentially Contaminating Activities (Liquid Fuel Facilities)		✓	200m
4.2	Historical Business Directories		✓	200m
Section 5 - Natural Hazards				
5.1	Fire Hazard *(Bushfire Prone Areas)*		✓	500m
	Fire Hazard *(Bushfire History)*			500m
5.2	Flood Hazard *(Flood Planning Area)*	✓	✓	500m
	Flood Hazard *(Other Flood Studies)*	✓	✓	500m
	Flood Hazard *(Flood History)*			500m
5.3	Erosion Hazard	✓	✓	500m

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PRODUCT GUIDE **52**

ATTACHMENTS

Appendix A - Report Maps
Appendix B - Historical Imagery

Section 1 Property Setting

1.1 Sensitive Receptors and Features of Interest

Map 1.1 (200m Buffer)

Sensitive receptor	Type	Distance (m)	Direction
Matilda Bay Reserve	Parks	0.0	Onsite
Swan River	Watercourse Area	0.0	Onsite
Oak Lawn	Parks	35.4	West
The University of Western Australia	Education	84.3	West
Riley Oval	Parks	107.7	West
UWA Sport	Sports and Recreation	121.6	West
Patricia Crawford Court	Parks	142.3	North-west
St George's College	Education	169.7	North
St Thomas More College	Education	172.7	North-west
Prescott Court	Parks	183.7	South
Great Court South	Parks	185.5	North-west

Source: Sensitive Receptors

1.2a Planning Controls

Zoning

Map 1.2a (500m Buffer)

Zoning	Type	Details	Distance (m)	Direction
94	Public purposes - university	Metropolitan Region Scheme (MRS) - 22 April 2025	0.0	Onsite
78	Regional open space	Metropolitan Region Scheme (MRS) - 22 April 2025	0.0	Onsite
79	Waterways	Metropolitan Region Scheme (MRS) - 22 April 2025	0.0	Onsite
98	Public purposes - Water Authority of WA	Metropolitan Region Scheme (MRS) - 22 April 2025	0.0	Onsite
75	Primary regional roads	Metropolitan Region Scheme (MRS) - 22 April 2025	82.7	North
1	Urban	Metropolitan Region Scheme (MRS) - 22 April 2025	257.7	South-west
1	Residential	City of Perth LPS No. 2	270.0	North
1	Residential	City of Subiaco LPS No. 4	286.1	South-west
76	Other regional roads	Metropolitan Region Scheme (MRS) - 22 April 2025	328.1	West
1940	Public purposes	City of Subiaco LPS No. 4	373.7	West
864	Neighbourhood mixed use	City of Subiaco LPS No. 4	461.7	West

Source: Zoning, Planning Overlays and Other Planning Information

1.2b Planning Overlays

Map 1.2b (500m Buffer)

Environmental Planning Instruments

Name	Type	Details	Distance (m)	Direction
Precincts, P9	LPS Other Categories - Areas - Special Control Area	City of Perth LPS No. 2	0.0	Onsite
Public purposes - university	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 94	0.0	Onsite
Parks and recreation	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 80	0.0	Onsite
Waterways	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 79	0.0	Onsite
Public purposes - Water Authority of WA	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 98	0.0	Onsite
Swan River Trust area	LPS Other Categories - Areas - Special Control Area	City of Subiaco LPS No. 4	0.0	Onsite
University precinct, 13	LPS Other Categories - Areas - Special Control Area	City of Subiaco LPS No. 4	0.0	Onsite
Subiaco	Local Planning Scheme Boundary	City of Subiaco LPS No. 4	0.0	Onsite
Metropolitan Region Scheme Boundary	Region Planning Scheme Boundary	MRS	0.0	Onsite
Perth	Local Planning Scheme Boundary	City of Perth LPS No. 2	0.0	Onsite
Primary regional roads	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 75	82.7	North
Site Number: 402	Region Scheme Special Areas	Bush forever area	98.4	South

Name	Type	Details	Distance (m)	Direction
Urban	Region Scheme Zones and Reserves	Class: Zone, Region scheme: 1	257.7	South-west
R60	Local Planning Scheme R-Code Boundary	Shire of Perth LPS No. 2	270.0	North
R20/50	Local Planning Scheme R-Code Boundary	Shire of Subiaco LPS No. 4	286.1	South-west
Other regional roads	Region Scheme Zones and Reserves	Class: Reserve, Region scheme: 76	328.1	West
Site Number: 317	Region Scheme Special Areas	Bush forever area	349.4	North
R50	Local Planning Scheme R-Code Boundary	Shire of Subiaco LPS No. 4	421.5	West
Hollywood precinct, 12	LPS Other Categories - Areas - Special Control Area	City of Subiaco LPS No. 4	422.2	North-west

Other Planning Information

Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-

Including Mining Subsidence Areas.
Source: Zoning, Planning Overlays and Other Planning Information

1.3 Heritage

Map 1.3 (200m Buffer)

State and Local Heritage Registers

Site ID	Site Name	Type	Details	Distance (m)	Direction
ACH-00003536	SWAN RIVER	Aboriginal Heritage Places	place type: Creation / Dreaming Narrative, culturally sensitive: No	0.0	Onsite
24364	UWA Conservation Area	State Heritage Register	Crawley	0.0	Onsite
13702	University of Western Australia-Crawley Campus	State Heritage Register	Bounded by Stirling Hwy,Hackett Dv,Mounts Bay Rd,Fairway &Parkway, Crawley	0.0	Onsite
27029	Mounts Bay Road foreshore	State Heritage Register	Mounts Bay Road, Perth	0.0	Onsite
9209	Archaeological Site	State Heritage Register	Matilda Bay Foreshore, Nedlands	0.0	Onsite
3965	University Boat Club	State Heritage Register	University of WA, Matilda Bay Reserve, Crawley	0.0	North
4574	Law School	State Heritage Register	Off Hackett Dv, University of Western Australia, Crawley	0.0	West
4484	University of Western Australia Campus Gardens	State Heritage Register	University of Western Australia, Crawley	0.2	West
24341	UWA Music Department	State Heritage Register	UWA Campus, Crawley	32.3	West
2457	Shenton House	State Heritage Register	University of WA, Hackett Dve, Crawley	52.0	South-west
2457	Shenton House	Heritage Register	University of WA, Hackett Dve, Crawley	52.0	South-west
4573	Octagon Theatre	State Heritage Register	Off Hackett Dv, University of Western Australia, Crawley	118.6	West
3237	St Georges College inc Cork Oak Tree	State Heritage Register	University of WA, Mounts Bay Rd, Crawley	143.0	North

Site ID	Site Name	Type	Details	Distance (m)	Direction
3237	St Georges College inc Cork Oak Tree	Heritage Register	University of WA, Mounts Bay Rd, Crawley	143.0	North
4534	Reid Library	State Heritage Register	University of Western Australia, Crawley	160.2	West
3863	Old Pharmacology Building	State Heritage Register	off Hackett Dv, University of Western Australia, Crawley	179.5	South
3519	Hackett Memorial Buildings (University of Western Australia, UWA)	State Heritage Register	off Mounts Bay Rd, Crawley	199.3	West
3519	Hackett Memorial Buildings (University of Western Australia, UWA)	Heritage Register	off Mounts Bay Rd, Crawley	199.3	West

Source: State and Local Heritage Registers

Australian Heritage Database Register

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Source: Commonwealth Heritage List, National Heritage List and World Heritage Area

1.4a Soil and Land Use Information

Map 1.4a (500m Buffer)

Soil Landscape

Code	Name	Soil Group	Description	Distance (m)	Direction
211Sp__S14	EnvGeol S14 phase	Pale deep sand	SAND - pale grey to white, medium-grained sub-angular, quartz and feldspar, well sorted, abundant whole and broken bivalves and gastropod shells, of alluvial origin	0.0	Onsite
211Sp__S7	EnvGeol S7 phase	Yellow deep sand	SAND - pale and olive yellow, medium to coarse-grained, sub-angular to sub-rounded quartz, trace of feldspar, moderately sorted, of residual origin	82.9	North-west

Source: Soil Landscape

Salinity

Salinity Hazard	Type	Details	Distance (m)	Direction
Low	Salinity Hazard	Soil landscape land quality - Salinity Risk	0.0	Onsite
High hazard or risk	Australian Dryland Salinity Assessment (1:2,500,000) 2001	High hazard or risk in 2000, 2020, and 2050	0.0	Onsite

Source: Soil Salinity

Radon

Radon Level (Bq/m³)	Distance (m)	Direction
11	0.0	Onsite
10	376.5	North

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

1.4b Acid Sulfate Soil

State and Local Acid Sulfate Soil Registers

Map 1.4b (500m Buffer)

Name	Classification	Description	Distance (m)	Direction
Acid Sulfate Soils Risk	Moderate to low risk	Moderate to low risk of ASS occurring within 3m of natural soil surface but high to moderate risk of ASS beyond 3m of natural soil surface	0.0	Onsite
Acid Sulfate Soils Risk	High to moderate risk	High to moderate risk of ASS occurring within 3m of natural soil surface	0.0	Onsite

To ensure that development does not disturb, expose, or drain acid sulfate soils and cause environmental damage, development consent may be required for conducting works within areas and land shown on the Acid Sulfate Soils Map.
Source: National, State and Local Acid Sulfate Soils Registers

National Acid Sulfate Soil Register

Name	Classification	Description	Distance (m)	Direction
Atlas of Australian Acid Sulfate Soils	High Probability of occurrence	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	High Probability of occurrence	Acid sulfate soil generally below 1m of the surface.	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	Extremely low probability of occurrence	Unclassified	57.4	North-west

Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics.
Source: National, State and Local Acid Sulfate Soils Registers

1.5 Geology and Topography

Map 1.5 (500m Buffer)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
WA 1:50,000 Geological Map Series (20342)	Water	Null	Null	Null	Null	Water	0.0	Onsite
WA 1:50,000 Geological Map Series (20342)	S14	Null	CAINOZOIC, QUATERNARY, HOLOCENE,	Null	Null	SAND - pale grey to white, medium-grained sub-angular, quartz and feldspar, well sorted, abundant whole and broken bivalves and gastropod shells, of alluvial origin	0.0	Onsite
WA 1:50,000 Geological Map Series (20342)	S7	Null	CAINOZOIC, QUATERNARY, PLEISTOCENE,	Null	Null	SAND - pale and olive yellow, medium to coarse-grained, sub-angular to sub-rounded quartz, trace of feldspar, moderately sorted, of residual origin	57.4	North-west

Source: Geology

Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

Source: Naturally Occurring Asbestos NOA

Topography

Topography (Onsite)	0 - 6 mAHD

Source: National, State and Local Acid Sulfate Soils Registers

Section 2 Hydrogeology and Geotechnical

2.1 GDE & Hydrogeology Constraints

Map 1.5 (500m Buffer)

Aquifer Type

Type	Distance (m)	Direction
Porous, extensive highly productive aquifers	0.0	Onsite

Source: Groundwater Aquifers

Groundwater Protection Areas

Name	Water Plan Area	Distance (m)	Direction
Perth	Perth Groundwater Area	0.0	Onsite

Source: Groundwater Protection Areas and Groundwater Restricted Use Zones

Wetlands

Name	Description	Distance (m)	Direction
Swan-Canning Estuary	TOPO250K: WATERBODY	0.0	Onsite
Swan-Canning Estuary	Recreation, Conservation, Government requirements, Drainage, Historical sites, Housing, Vacant land	0.0	Onsite
Swan River Estuary	TOPO250K: WATERBODY	0.0	Onsite
Swan River Foreshore, Pelican Point	Estuary-Peripheral	304.4	South
Kings Park/Children's Playground	Artificial Lake	1190.7	North

Name	Description	Distance (m)	Direction
unknown	Artificial Lake	1358.2	North-west

Source: Wetlands

Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)

Potential	Distance (m)	Direction
High potential GDE - from national assessment	1367.3	East

Aquatic - Ecosystems that rely on the Surface expression of groundwater.
Source: Groundwater Dependent Ecosystems

Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)

Potential	Distance (m)	Direction
Low potential GDE - from national assessment	349.6	North
Moderate potential GDE - from national assessment	368.6	North-west
High potential GDE - from national assessment	597.7	South

Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.
Source: Groundwater Dependent Ecosystems

Groundwater Licences (Western Australia)

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
8560	207292	81750 KL	LOT 14555 AUSTRALIA II DRIVE CRAWLEY 6009	Department of Biodiversity, Conservation and Attractions	0.0	Onsite
1267	153733	257100 KL	LOT 2885 ON PLAN 230371 - Volume/Folio LR3143/31 - Lot 2885 STIRLING HWY CRAWLEY; Lot 8178 On Plan 171759 Volume/Folio 1532/927 Lot 8178 Hackett Dr Crawley; Part Lot 2885 On Plan 202222 Volume/Folio Lr3143/31 Lot 2885 Hackett Dr Crawley; Lot 2886 On Plan 230371 Volume/Folio 902/65 Lot 2886 Parkway Crawley; Lot 5 On Diagram 75102 Volume/Folio 1845/397 Lot 5 Fairway Crawley; Lot 12 On Plan 31055 Volume/Folio 2223/194 Lot 12 Fairway Crawley	University of Western Australia	0.0	Onsite
8768	207882	19500 KL	LOT 5 ON PLAN 9045; LOT 3732 MOUNTS BAY ROAD CRAWLEY 6009; LOT 490 WINTHROP AVENUE CRAWLEY 6009	University of Western Australia	184.0	North-west
822	151382	16500 KL	LOT 8 MOUNTS BAY ROAD CRAWLEY 6009	University of Western Australia	185.5	North-east
11547	61458	580700 KL	Lot 896 On Plan 213904 Volume/Folio Lr3139/24 Lot 896 Mounts Bay Rd Kings Park; Lot 470 On Plan 213904 Volume/Folio Lr3139/14 Lot 470 Mounts Bay Rd Kings Park; Lot 801 On Plan 213904 Volume/Folio Lr3139/21 Lot 801 Lot 772 On Plan 213904 Volume/Folio Lr3139/17 Lot 772 Mounts Bay Rd Kings Park Crown Reserve 1720 Volume/Folio Lr3139/20 786 Mounts Bay Rd Kings Park; Lot L74 On Plan	Botanic Gardens & Parks Authority	349.4	North

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			213904 Volume/Folio Lr3139/10 Lot 74 Mounts Bay Rd Kings Park Lot L76 On Plan 213904 Volume/Folio Lr3139/11 Lot 76 Lot 465 On Plan 213904 Volume/Folio Lr3139/12 Lot 465 Mounts Bay Rd Kings Park Lot 557 On Plan 213904 Volume/Folio Lr3139/16 Lot 557 Bellevue Tce Kings Park Lot 556 On Plan 213904 Volume/Folio Lr3139/15 Lot 556 Cliff St Kings Park Lot 895 On Plan 213904 Volu			
1439	155104	239400 KL	LOT 50 ON PLAN 290 - Volume/Folio 1145/753 - Lot 50 ARDEN ST EAST PERTH; Crown Reserve 1720 Lot 896 Mounts Bay Road Perth; LOT 19 ON DIAGRAM 16743 - Volume/Folio 1152/924 - Lot 19 THOMAS ST WEST PERTH; LOT 45 ON PLAN 290 - Volume/Folio 1144/994 - Lot 45 ARDEN ST EAST PERTH; LOT 10 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 10 COLIN ST WEST PERTH; LOT 48 ON PLAN 290 - Volume/Folio 1145/753 - Lot 48 ARDEN ST EAST PERTH; LOT 1 ON PLAN 1397 - Volume/Folio 1673/203 - Lot 1 HAY ST WEST PERTH; LOT 54 ON PLAN 290 - Volume/Folio 1145/753 - Lot 54 ARDEN ST EAST PERTH; LOT 47 ON PLAN 290 - Volume/Folio 1145/753 - Lot 47 ARDEN ST EAST PERTH; Lot 19 on Plan 13229; Certificate of Title Volume 1571 folio 163 Lot 19 Clive Street West Perth; Lot 1094 On Plan 21083 Volume/Folio Lr3110/151 Lot 1094 Saunders St East Perth; LOT 800 ON DEPOSITED PLAN 50216 - Volume/Folio 2634/300 - Lot 800 PROWSE ST WEST PERTH; Perth Lot Y267; Certificate of Title Volume 23 folio 155 Lot Y267 James Street Northbridge; LOT 3 ON DIAGRAM 4464 - Volume/Folio 1564/881 - Lot 3 HAY ST WEST PERTH; LOT 53 ON PLAN 290 - Volume/Folio 1145/753 - Lot 53 ARDEN ST EAST PERTH; LOT 400 ON DEPOSITED PLAN 406728 - Volume/Folio LR3170/556 - Lot 400 WELLINGTON ST PERTH; Lot 78 Mount Street, Perth Volume/ Folio 202/172 Florence Hummerson Reserve; LOT 2 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 2 ARTHUR ST WEST PERTH; LOT 20 ON DIAGRAM 16743 - Volume/Folio 1154/996 - Lot 20 THOMAS ST WEST PERTH; Lot 1116 On Plan 22006 Volume/Folio Lr3116/157 Lot 1116 East Perth; LOT 896 ON DEPOSITED PLAN 213904 - Volume/Folio LR3139/24 - Lot 896 KATTIDJ CL KINGS PARK; LOT 4 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 4 ARTHUR ST WEST PERTH; LOT 51 ON PLAN 290 - Volume/Folio 1145/753 - Lot 51 ARDEN ST EAST PERTH; LOT 8 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 8 ARTHUR ST WEST PERTH; Road Reserve; Wingfield Avenue Crawley; Road Reserve; Colin Place West Perth; LOT 6 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 6 ARTHUR ST WEST PERTH; Lot 16 on Plan 13229; Certificate of Title Volume	City of Perth	349.4	North

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			1571 folio 162 Lot 16 Thelma Street West Perth; LOT 19 ON PLAN 123 - Volume/Folio 632/178 - Lot 19 HAY ST WEST PERTH; LOT 43 ON PLAN 290 - Volume/Folio 1111/251 - Lot 43 ARDEN ST EAST PERTH; LOT 52 ON PLAN 290 - Volume/Folio 1145/753 - Lot 52 ARDEN ST EAST PERTH; Road Reserve, Mount Street Perth; LOT 7 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 7 COLIN ST WEST PERTH; Road Reserve - Pin11826146; LOT 1 ON PLAN 1154 - Volume/Folio 227/177 - Lot 1 THOMAS ST WEST PERTH; LOT 5 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 5 ARTHUR ST WEST PERTH; LOT 1 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 1 THOMAS ST WEST PERTH; LOT 2 ON DIAGRAM 4464 - Volume/Folio 1564/880 - Lot 2 HAY ST WEST PERTH; LOT 3 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 3 ARTHUR ST WEST PERTH; LOT 17 ON PLAN 123 - Volume/Folio 632/178 - Lot 17 HAY ST WEST PERTH; LOT 44 ON PLAN 290 - Volume/Folio 1158/496 - Lot 44 ARDEN ST EAST PERTH; Perth Road Reserve Moore Street, Perth; LOT 18 ON PLAN 123 - Volume/Folio 632/178 - Lot 18 HAY ST WEST PERTH; LOT 46 ON PLAN 290 - Volume/Folio 1145/753 - Lot 46 ARDEN ST EAST PERTH; LOT 49 ON PLAN 290 - Volume/Folio 1145/753 - Lot 49 ARDEN ST EAST PERTH; Part Lot 75 on Plan 28365 Wellington Street East Perth; LOT 42 ON PLAN 290 - Volume/Folio 1111/251 - Lot 42 ARDEN ST EAST PERTH; Lot 1068 On Plan 192606 Volume/Folio Lr3119/97 Lot 1068 East Perth; Lot 1072 On Plan 21031 Volume/Folio Lr3108/10 Lot 1072 Jewell L East Perth; Perth Lot V157; Certificate of Title Volume 207 folio 13 Lot V157 Wellington Street West Perth; Lot 1111 On Plan 22004 Volume/Folio Lr3111/167 Lot 1111 Plain St East Perth; Road Reserve - Pin11480990; Road Reserve; Sutherland Street West Perth; LOT 9 ON DIAGRAM 9199 - Volume/Folio 1033/80 - Lot 9 ARTHUR ST WEST PERTH			
5851	183189	45704 KL	Cooper Streetscape; Broadway Streetscape; Lot 1 On Plan 2948 Volume/Folio 438/127 Lot 1 The Avenue Crawley JH Abrahams Reserve; Lot 1 On Plan 2948 Volume/Folio 438/127 Lot 1 The Avenue Crawley Lot 2 On Plan 2948 Volume/Folio 438/127 Lot 2 The Avenue Crawley Lot 793 On Plan 2948 Volume/Folio 438/127 Lot 793 Broadway Crawley Lot 10021 On Plan 183772 Volume/Folio Lr3135/677 Lot 10021 Hackett Dr Crawley Lot 3 On Plan 2948 Volume/Folio 438/127 Lot 3 The Avenue Crawley Lot 10020 On Plan 183772 Volume/Folio Lr3135/676	City of Perth	450.1	West
514	110235	15000 KL	LOT 18 ON PLAN 23550 - Volume/Folio 280/5A - Lot 18 STIRLING HWY CRAWLEY; Lot 19 On	Trinity College	457.9	West

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			Diagram 23550 Volume/Folio 1261/386 Lot 19 Hampden Rd Crawley			
8766	207876	13500 KL	LOT 8235 ON PLAN 189683	University of Western Australia	645.4	North-west
11813	64048	57750 KL	Lot 9075 On Plan 213389 Volume/Folio Lr3138/601 Lot 9075 Hospital Av Nedlands; LOT 8448 ON PLAN 213389 - Lot 8448 ABERDARE RD NEDLANDS	Metropolitan Health Service	725.0	North-west
5349	181195	7500 KL	Lot 9075 On Plan 213389 Volume/Folio Lr3138/601 Lot 9075 Hospital Av Nedlands	Metropolitan Health Service	725.0	North-west
8767	207877	6000 KL	LOT 500 ON PLAN 67551; LOT 9075 ON PLAN 213389	University of Western Australia	725.0	North-west
1478	155362	57000 KL	Lot 10408 On Plan 49807 Volume/Folio Lr3137/429 Lot 10408 Circe Cir Dalkeith Dalkeith Primary Sch; Crown Reserve 34157 Lot 9487 Kingsway Nedlands Nedlands Primary School; Lot 3002 On Plan 47117 Volume/Folio Lr3147/873 Lot 3002 Narla Rd Swanbourne Swanbourne Primary Sc; Crown Reserve 23616 Lot 5398 Alfred Rd Mount Claremont Graylands Primary School; Lot 13424 On Plan 194320 Volume/Folio Lr3114/614 Lot 13424 Monash Av Nedlands Hollywood Primary S; Lot 393 On Plan 220979 Volume/Folio Lr3118/96 Lot 393 Narla Rd Swanbourne Lot 3002 On Plan 47117	Department of Education	725.4	South-west
7599	204670	721550 KL	LOT 11380 ON PLAN 16954 - Volume/Folio LR3141/697 - Lot 11380 HERITAGE LANE MOUNT CLAREMONT; LOT 77 ON PLAN 3668 - Volume/Folio 1106/352 - Lot 77 STIRLING HWY NEDLANDS; LOT 415 ON PLAN 71165 - Volume/Folio LR3161/888 - Lot 415 ST JOHNS WOOD BVD MOUNT CLAREMONT; LOT 12120 ON PLAN 17426 - Volume/Folio LR3141/700 - Lot 12120 PINE TREE LANE MOUNT CLAREMONT; Lot 12898 on Plan 6204; Certificate of Title 3110 Folio 488 Crown Reserve 45387 Zamia Street Mount ; LOT 100 ON PLAN 222793 - Volume/Folio LR3012/202 - Lot 100 PRINCESS RD NEDLANDS; LOT 123 ON PLAN 222793 Volume/Folio LR3145/507 Lot 123 BRUCE ST NEDLANDS; LOT 1 ON PLAN 24967 - Volume/Folio 1247/236 - Lot 1 MARINE PDE SWANBOURNE; LOT 57 ON PLAN 1747 - Volume/Folio 1257/4 - Lot 57 STIRLING HWY NEDLANDS; Lot 824 on Plan 3395 14 Alexander Rd Dalkeith Genesta Crescent Reserve; LOT 76 ON PLAN 3668 - Volume/Folio 1106/352 - Lot 76 STIRLING HWY NEDLANDS; PLAN 4480 - Volume/Folio 608/101 - Lot 0 ; LOT 10806 ON PLAN 15436 - Volume/Folio LR3049/283 - Lot 10806 EDWARDS GRN FLOREAT; LOT 13219 ON PLAN 77794 - Volume/Folio LR3112/899 - Lot 13219 ; LOT 496 ON PLAN 22245 - Volume/Folio LR3133/82 - Lot 496 SAYER ST SWANBOURNE; LOT 254 ON PLAN 3321 - Volume/Folio 593/87 - Lot 254 STRICKLAND ST MOUNT CLAREMONT; LOT 26 ON PLAN 3062 - Volume/Folio 942/173 - Lot 26 SMYTH RD	City of Nedlands	1064.3	South-west

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			NEDLANDS; LOT 102 ON PLAN 222793 - Volume/Folio LR3012/205 - Lot 102 MELVISTA AV NEDLANDS; LOT 68 ON PLAN 55208 - Volume/Folio LR3149/308 - Lot 68 ; LOT 11080 ON PLAN 72246 - Volume/Folio LR3141/597 - Lot 11080 GRAINGER DR MOUNT CLAREMONT; LOT 303 ON PLAN 22247 - Volume/Folio LR3133/83 - Lot 303 SALTSPRAY CT SWANBOURNE; LOT 9 ON PLAN 6025 - Volume/Folio 1106/352 - Lot 9 LOUISE ST NEDLANDS; LOT 121 ON PLAN 222793 - Volume/Folio LR3145/505 - Lot 121 MELVISTA AV NEDLANDS; LOT 8002 ON PLAN 50043 - Volume/Folio LR3138/343 - Lot 8002 ; LOT 104 ON PLAN 222793 - Volume/Folio LR3012/207 - Lot 104 MELVISTA AV NEDLANDS; Lot 73 On Plan 55208 Volume/Folio Lr3149/313 Lot 73 Swanbourne; LOT 13847 ON PLAN 23635 - Volume/Folio LR3118/949 - Lot 13847 CALADENIA PDE MOUNT CLAREMONT; LOT 6 ON PLAN 6025 - Volume/Folio 1106/352 - Lot 6 LOUISE ST NEDLANDS; LOT 13837 ON PLAN 23634 - Volume/Folio LR3118/931 - Lot 13837 CALADENIA PDE MOUNT CLAREMONT; LOT 3 ON PLAN 6025 - Volume/Folio 1106/352 - Lot 3 LOUISE ST NEDLANDS; LOT 500 ON PLAN 73170 - Volume/Folio LR3169/88 - Lot 500 CLEMENT ST SWANBOURNE; LOT 305 ON PLAN 49483 - Volume/Folio LR3164/178 - Lot 305 ; LOT 4 ON PLAN 6025 - Volume/Folio 1106/352 - Lot 4 LOUISE ST NEDLANDS; LOT 11132 ON PLAN 16265 - Volume/Folio LR3140/13 - Lot 11132 LOVEGROVE CL MOUNT CLAREMONT; LOT 15 ON PLAN 6025 - Volume/Folio 1115/527 - Lot 15 VINCENT ST NEDLANDS; LOT 367 ON PLAN 217519 - Volume/Folio LR3013/199 - Lot 367 ODERN CR SWANBOURNE; LOT 11960 ON PLAN 18287 - Volume/Folio LR3142/387 - Lot 11960 BROMILOW GRN MOUNT CLAREMONT; LOT 56 ON PLAN 1747 - Volume/Folio 1257/4 - Lot 56 STIRLING HWY NEDLANDS; Lot 11016 On Plan 15864 Volume/Folio Lr3090/331 Lot 11016 Moss Vale Floreat Moss Vale Gardens; LOT 341 ON PLAN 112 - Volume/Folio 1026/711 - Lot 341 BROOME ST NEDLANDS; LOT 11959 ON PLAN 18287 - Volume/Folio LR3142/386 - Lot 11959 BROMILOW GRN MOUNT CLAREMONT; LOT 792 ON PLAN 2948 - Volume/Folio 1343/895 - Lot 792 ESPLANADE NEDLANDS; Lot 46 On Diagram 10899 Volume/Folio 1079/528 Lot 46 Campsie St Nedlands Campsie Park; Lot 11833 On Diagram 82163 Volume/Folio Lr3100/616 Lot 11833 St Johns Wood Bvd Mount Claremont; Lot 304 On Plan 22249 Volume/Folio 2218/858 Lot 304 Coast Rise Swanbourne; LOT 192 ON PLAN 204900 - Volume/Folio 1441/884 - Lot 192 ODERN CR SWANBOURNE; LOT 122 ON PLAN 222793 - Volume/Folio LR3145/506 - Lot 122 MELVISTA AV NEDLANDS; LOT 5 ON PLAN 6025 - Volume/Folio 1106/352 - Lot 5 LOUISE ST			

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			NEDLANDS; LOT 61 ON PLAN 222793 - Volume/Folio LR3000/462 - Lot 61 BISHOP RD DALKEITH; LOT 14452 ON PLAN 32815 - Volume/Folio LR3128/738 - Lot 14452 VAN KLEEF CCT MOUNT CLAREMONT; Portion of Swan Locatio			
10208	211393	6925 KL	LOT 103 ON PLAN 411077; LOT 101 ON PLAN 411077	HN Asset Pty Ltd the HN Resi Asset Trust	1222.0	West
3940	172335	7875 KL	LOT 416 ON PLAN 1747 Volume/Folio 1031/899 Lot 416 WEBSTER ST NEDLANDS; LOT 433 ON PLAN 1747 Volume/Folio 1031/899 Lot 433 WEBSTER ST NEDLANDS; LOT 437 ON PLAN 1747 Volume/Folio 1031/899 Lot 437 WEBSTER ST NEDLANDS; LOT 434 ON PLAN 1747 Volume/Folio 1031/899 Lot 434 WEBSTER ST NEDLANDS; LOT 415 ON PLAN 1747 Volume/Folio 1031/899 Lot 415 WEBSTER ST NEDLANDS; LOT 418 ON PLAN 1747 Volume/Folio 644/27 Lot 418 WEBSTER ST NEDLANDS; LOT 431 ON PLAN 1747 Volume/Folio 1031/899 Lot 431 WEBSTER ST NEDLANDS; LOT 440 ON PLAN 1747 Volume/Folio 1031/899 Lot 440 WEBSTER ST NEDLANDS; Lot 438 On Plan 1747 Volume/Folio 1031/899 Lot 438 Webster St Nedlands Loreto Primary School; LOT 436 ON PLAN 1747 Volume/Folio 1031/899 Lot 436 WEBSTER ST NEDLANDS; LOT 420 ON PLAN 1747 Volume/Folio 1031/899 Lot 420 WEBSTER ST NEDLANDS; LOT 441 ON PLAN 1747 Volume/Folio 1031/899 Lot 441 WEBSTER ST NEDLANDS; LOT 432 ON PLAN 1747 Volume/Folio 1031/899 Lot 432 WEBSTER ST NEDLANDS; LOT 414 ON PLAN 1747 Volume/Folio 1031/899 Lot 414 WEBSTER ST NEDLANDS; LOT 435 ON PLAN 1747 Volume/Folio 1031/899 Lot 435 WEBSTER ST NEDLANDS; LOT 439 ON PLAN 1747 Volume/Folio 1031/899 Lot 439 WEBSTER ST NEDLANDS; LOT 419 ON PLAN 1747 Volume/Folio 644/27 Lot 419 WEBSTER ST NEDLANDS; LOT 417 ON PLAN 1747 Volume/Folio 660/166 Lot 417 WEBSTER ST NEDLANDS	Loreto Nedlands Limited	1339.5	West
10937	55021	194000 KL	Crown Reserve 1669 Volume/Folio Lr3145/512 140 Melvista Av Nedlands Crown Reserve 1669 Volume/Fol	Nedlands Golf Club (Inc)	1486.2	South-west
3220	167936	444921 KL	Lot 404 On Plan 254208 Volume/Folio 1795/492 Lot 404 Bagot Rd Subiaco Lot 454 On Plan 127061 Volume/Folio 1795/493 Lot 454 Bagot Rd Subiaco; Lot 454 on Plan 127061; Certificate of Title Volume 1795 Folio 493 Lot 454 Bagot Road Subaico; Crown Reserve 25908 Lot 561 Luth Av Daglish Stubbs Terrace (Cliff Sadlier Reserve); Lot 460 On Plan 35705 Volume/Folio Lr3130/384 Lot 460 Tighe St Subiaco Market Square Park Subiaco Station Square Subiaco Market Sqaure	City of Subiaco	1500.0	North

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			Subiaco Subiaco Square Lot 13361 On Plan 194255 Volume/Folio Lr3038/129 Lot 13361 Roberts Rd Subiaco Lot 12731 On Plan 219514 Volume/Folio Lr3006/140 Lot 12731 Roberts Rd Subiaco Lot 14007 On Plan 23816 Volume/Folio Lr3104/425 Lot 14007 Subiaco Square R; Crown Reserve 21036; Lot 700 Harvey Road Shenton Park Harvey Road Reserve; Lot 4 on Plan 1536; Certificate of Title Volume 1112 Folio 190 Lot 4 Bagot Road Subiaco Subiaco Community Centre; Lot 83 On Plan 1585 Volume/Folio 978/101 Lot 83 William St Shenton Park; Crown Reserve 16850 Lot 467 Railway Rd Shenton Park Rankin Road Reserve; Lot 9007 On Plan 40507 Volume/Folio 2615/394 Lot 9007 Hay St Subiaco; Lot 13538 On Plan 194581 Crown Reserve 5183 Lot 13538 Hamersley Road, Subiaco Theatre Gardens Reserve; Crown Reserve 38538; Certificate of Title Volume Land Reserve 3122 Folio 505 Crown Reserve 38538 Park Street Subiaco; Lot 460 On Plan 35705 Volume/Folio Lr3130/384 Lot 460 Juniper Bank Wy Subiaco Subiaco Common; Crown Reserve 5694; Lot 897 Rokeby Road Subiaco Rokeby Road Gardens; Crown Reserve 6675; Lot 282 Rokeby Road Shenton Park Nicholson Road Reserve; Crown Reserve 25908 Lot 7158 Cunningham Tce Daglish Cliff Sadlier Reserve; Crown Reserve 7214 Rosalie Park Aberdare and Onslow Road, Shenton Park; Lot 3000 On Plan 44261 Crown Reserve 27965 Lot 3000 Peel Street, Jolimont Mabel Talbot Reserve; Lots 17, 18 & 19 on Plan 1535; Certificate of Title Volume 1646 Folios 605, 603 & 604 Lots 17,18 & 19 Park Street Subiaco Richard Diggins Park; Lot 7158 On Plan 182426 Volume/Folio Lr3150/28 Lot 7158 Cunningham Tce Daglish Charles Stokes Reserve; Lot 561 On Plan 182426 Volume/Folio Lr3150/29 Lot 561 Luth Av Daglish Lot 7158 On Plan 182426 Volume/Folio Lr3150/28 Lot 7158 Cunningham Tce Daglish Cliff Sadlier Reserve; Road Reserve corner of Cunningham Terrace & Stubbs Terrace Daglish, Road Reserve along Railway Road Daglish; Lot 12734 On Plan 219514 Volume/Folio Lr3006/91 Lot 12734 Roberts Rd Subiaco Mueller Park Reserve; Crown Reserve 20246; Lot 45 Hickey Avenue Daglish Hickey Avenue Tennis; Lot 26 On Plan 1585 Volume/Folio 687/147 Lot 26 Henry St Shenton Park; Crown Reserve 8630 Lot 119 Herbert Rd Shenton Park Lake Jualbup Reserve (Shenton Park Lake) Crown Reserve 8630 Lot 752 Herbert Rd Shenton Park Crown Reserve 8630 Lot 118 Excelsior St Shenton Park; Lot 9 On Plan 2901 Volume/Folio 129/138 Lot 9 Rosalie St Shenton Park Austin Road Park Lot 83 On Plan 1585 Volume/Folio 978/101 Lot			

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
			83 William St Shenton Park Lot 26 On Plan 1585 Volume/Folio 687/147 Lot 26 Henry St Shenton Park Lot 100 On Diagram 6826 Volume/Folio 909/113 Lot 100 Austin St Shenton Park; Lot 9 On Plan 2901 Volume/Folio 129/138 Lot 9 Rosalie St Shenton Park Rosalie Street Park; Crown Reserve 20380; Lot 439 Hay Street Daglish Hay Street Reserve			
12433	97097	13000 KL	Lot 1 On Plan 47396 Volume/Folio 2649/70 Lot 1 Railway Rd Karrakatta	Department of Veterans' Affairs & the Repatriation Commission and the Military Rehabilitation and Co	1542.7	West
10391	211774	12750 KL	Lot 450 On Plan 31359 Lot 450 Shenton Park Rosalie Primary School	Department of Education	1614.1	North
11729	63391	342800 KL	Lot 1 On Plan 47396 Volume/Folio 2649/70 Lot 1 Railway Rd Karrakatta	Metropolitan Cemeteries Board	1633.7	North-west

Source: Groundwater Protection Areas and Groundwater Restricted Use Zones

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
101	61605299	Unknown	30/06/1967	12.2	11.4	Null	Null	Null	44.1	West
93	61671740	Unknown	04/01/2002	36.0	36.0	Null	Null	Null	71.1	South
119	61606683	Unknown	30/06/1987	36.0	35.6	4.8	Null	Null	117.1	West
112	61606272	Unknown	28/09/1978	5.5	5.2	2.4	Null	Null	306.0	North
95	61671787	Unknown	03/12/2002	54.0	54.0	Null	Null	Null	338.9	North
241	61616313	Stock and Domestic	Null	Null	Null	Null	Null	Null	414.1	North
129	61605474	Irrigation	30/06/1960	34.1	Null	11.6	Null	Null	422.9	North
105	61671842	Unknown	07/11/2000	20.5	20.5	Null	Null	Null	430.0	North-east
245	61610118	Monitoring	Null	Null	Null	1.8	Null	Null	430.7	South-west
211	61670899	Unknown	29/04/2009	31.0	31.0	11.3	Null	Null	512.9	West
132	61606271	Stock and Domestic	06/03/1978	42.7	Null	12.2	Null	Null	556.1	North-east
204	61606760	Irrigation	28/06/1991	29.0	28.0	8.5	Null	Null	557.8	West
11	61616177	Unknown	30/06/1977	10.7	Null	Null	Null	Null	567.0	North-east
203	61605817	Unknown	28/12/1977	18.3	17.2	7.6	Null	Null	620.4	North-west
169	61605835	Unknown	18/01/1978	34.1	Null	24.4	Null	Null	681.8	West
173	61605799	Unknown	12/01/1978	34.1	Null	25.9	Null	Null	705.9	West

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
26	61606233	Stock and Domestic	15/10/1978	59.4	Null	Null	Null	Null	709.4	West
155	61606232	Unknown	31/08/1978	29.3	Null	21.2	Null	Null	710.3	South-west
113	61670902	Unknown	27/10/2010	20.0	20.0	2.6	Null	Null	722.4	South
110	61672170	Bore or Well	22/09/2017	554.0	553.6	Null	Null	Null	757.8	South
111	61672171	Bore or Well	05/08/2017	21.0	21.0	Null	Null	Null	763.5	South
23	61605591	Irrigation	01/01/1900	Null	Null	Null	Null	Null	810.2	West
123	61606492	Stock and Domestic	12/05/1978	15.1	Null	7.0	Null	Null	829.2	North-west
150	61605828	Unknown	24/11/1977	27.4	Null	19.3	Null	Null	906.9	West
187	61605652	Unknown	01/01/1900	39.6	Null	28.6	Null	Null	907.1	West
206	61606494	Unknown	01/01/1900	12.2	11.0	8.5	Null	Null	917.5	West
136	61606241	Unknown	08/09/1978	21.3	Null	14.5	Null	Null	935.0	South-west
51	61616373	Irrigation	01/01/1900	16.0	Null	Null	Null	Null	958.4	South-west
180	61605827	Unknown	30/11/1977	36.6	Null	27.4	Null	Null	969.5	West
8	61616159	Unknown	30/06/1977	27.1	Null	Null	Null	Null	1037.9	South-west
47	61606599	Stock and Domestic	30/06/1978	17.4	Null	Null	Null	Null	1038.9	West
164	61605825	Unknown	08/02/1978	33.5	Null	23.8	Null	Null	1059.8	South-west
125	61605823	Unknown	11/08/1977	15.2	Null	7.5	Null	Null	1060.1	South-west
189	61605829	Unknown	13/04/1978	40.2	Null	30.2	Null	Null	1068.3	West
146	61616259	Stock and Domestic	30/06/1978	23.8	Null	18.3	Null	Null	1076.8	West
238	61616331	Stock and Domestic	Null	Null	Null	Null	Null	Null	1085.3	West
218	61605824	Unknown	03/03/1978	29.3	27.5	18.0	Null	Null	1103.6	South-west
195	61616265	Stock and Domestic	15/11/1978	39.6	Null	36.6	Null	Null	1105.7	South-west
141	61616254	Stock and Domestic	30/06/1978	21.9	Null	16.1	Null	Null	1113.9	South-west
106	61670990	Unknown	26/11/2010	10.4	10.4	Null	Null	Null	1115.4	North
161	61605826	Unknown	27/02/1978	36.0	Null	23.5	Null	Null	1136.5	South-west
176	61605667	Unknown	30/06/1977	35.6	Null	26.5	Null	Null	1139.7	West
108	61670992	Unknown	26/11/2010	9.5	9.5	Null	Null	Null	1142.3	North-west
188	61605831	Unknown	23/12/1977	48.8	Null	29.0	Null	Null	1145.8	West
43	61606598	Stock and Domestic	01/01/1900	30.5	Null	Null	Null	Null	1156.0	West
232	61605830	Stock and Domestic	14/07/1977	42.1	36.0	32.0	Null	Null	1156.5	West
231	61605832	Unknown	13/09/1977	40.2	39.6	32.0	Null	Null	1176.0	South-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
128	61606225	Stock and Domestic	04/02/1978	21.6	Null	10.7	Null	Null	1181.5	West
74	61606600	Stock and Domestic	30/06/1978	28.6	Null	Null	Null	Null	1187.6	West
191	61606123	Stock and Domestic	01/06/1978	41.1	Null	30.8	Null	Null	1189.4	South-west
120	61670986	Unknown	20/07/2010	8.0	8.0	5.7	Null	Null	1190.5	North-west
131	61606116	Stock and Domestic	15/02/1978	27.4	Null	12.2	Null	Null	1194.7	South-west
65	61606234	Stock and Domestic	15/12/1977	27.4	Null	Null	Null	Null	1197.8	West
28	61616333	Stock and Domestic	01/01/1900	27.4	Null	Null	Null	Null	1202.2	West
48	61606603	Stock and Domestic	30/06/1930	24.4	Null	Null	Null	Null	1207.9	North-west
118	61670982	Unknown	18/03/2009	6.5	6.5	4.7	Null	Null	1211.7	North-west
60	61605388	Irrigation	01/01/1900	32.0	Null	Null	Null	Null	1218.9	North
41	61606602	Stock and Domestic	15/08/1979	29.0	Null	Null	Null	Null	1219.3	West
85	61606240	Stock and Domestic	15/08/1978	10.7	Null	1.8	Null	Null	1223.2	South-west
244	61612322	Unknown	Null	Null	Null	Null	Null	Null	1225.1	West
124	61606257	Unknown	09/02/1979	26.9	Null	7.3	Null	Null	1227.2	North-west
42	61606601	Stock and Domestic	30/06/1978	29.3	Null	Null	Null	Null	1227.6	West
198	61605833	Unknown	08/02/1978	45.7	Null	38.7	Null	Null	1237.7	South-west
89	61605621	Stock and Domestic	30/06/1956	19.8	Null	3.7	Null	Null	1238.6	North-west
115	61670984	Unknown	18/03/2009	5.4	5.4	3.1	Null	Null	1239.8	North-west
174	61616261	Stock and Domestic	30/06/1978	29.2	Null	26.0	Null	Null	1243.6	South-west
239	61612325	Unknown	Null	Null	Null	Null	Null	Null	1246.2	West
100	61671779	Unknown	30/08/2001	45.0	44.0	Null	Null	Null	1253.3	West
17	61616334	Stock and Domestic	30/06/1979	Null	Null	Null	Null	Null	1255.9	North-west
145	61616158	Unknown	22/09/1977	27.4	Null	18.3	Null	Null	1257.4	South-west
56	61606543	Stock and Domestic	30/06/1978	33.8	Null	Null	Null	Null	1258.5	West
22	61606615	Stock and Domestic	13/12/1979	Null	Null	Null	Null	Null	1263.2	North-west
190	61605836	Unknown	10/02/1978	38.1	Null	30.2	Null	Null	1267.6	West
139	61606226	Stock and Domestic	15/11/1977	19.8	Null	15.2	Null	Null	1273.5	West
200	61606686	Stock and Domestic	01/01/1900	56.7	Null	39.6	Null	Null	1274.3	West
92	61672031	Unknown	29/07/2009	32.0	29.8	Null	Null	Null	1295.4	North-west
116	61670983	Unknown	18/03/2009	5.9	5.9	3.8	Null	Null	1297.0	North-west
58	61606609	Stock and Domestic	30/06/1978	27.4	Null	Null	Null	Null	1301.9	West

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
160	61606604	Stock and Domestic	29/02/1960	31.7	Null	23.2	Null	Null	1309.0	North-west
107	61670989	Unknown	26/11/2010	10.5	10.5	Null	Null	Null	1309.2	North
114	61670985	Unknown	20/07/2010	8.0	8.0	2.7	Null	Null	1319.6	North-west
196	61605837	Unknown	24/01/1978	49.4	Null	38.0	Null	Null	1320.3	West
97	61672141	Unknown	13/03/2004	26.5	26.4	Null	Null	Null	1321.0	North-west
235	61612317	Unknown	Null	Null	Null	Null	Null	Null	1330.2	South-west
157	61606607	Stock and Domestic	15/01/1980	30.5	Null	21.9	Null	Null	1331.3	North-west
197	61606377	Unknown	18/07/1979	45.7	Null	38.5	Null	Null	1336.4	South-west
170	61616150	Unknown	01/01/1900	59.4	Null	24.4	Null	Null	1336.7	South-west
199	61605834	Unknown	06/11/1977	46.9	Null	38.7	Null	Null	1344.7	South-west
21	61606608	Stock and Domestic	01/01/1900	Null	Null	Null	Null	Null	1346.2	West
122	61606865	Irrigation	29/10/1998	30.4	30.4	6.1	Null	Null	1348.9	North
133	61616298	Stock and Domestic	15/12/1978	22.9	Null	12.2	Null	Null	1350.2	South-west
99	61671918	Unknown	04/12/2002	33.0	30.0	Null	Null	Null	1354.9	North-west
36	61606606	Stock and Domestic	15/12/1979	39.6	Null	Null	Null	Null	1363.9	North-west
166	61606227	Stock and Domestic	15/03/1978	36.6	Null	23.8	Null	Null	1367.5	West
80	61611789	Monitoring	18/05/1984	25.0	Null	1.3	43210 uS/cm	Null	1374.1	South-west
86	61611790	Monitoring	18/05/1984	29.6	Null	1.9	44580 uS/cm	Null	1374.8	South-west
84	61611786	Monitoring	18/05/1984	6.0	Null	1.6	1710 uS/cm	Null	1374.8	South-west
82	61611787	Monitoring	18/05/1984	9.0	Null	1.4	1870 uS/cm	Null	1374.8	South-west
81	61611785	Monitoring	18/05/1984	3.0	Null	1.4	1080 uS/cm	Null	1374.8	South-west
79	61611788	Monitoring	18/05/1984	22.0	Null	1.3	1910 uS/cm	Null	1374.8	South-west
83	61606782	Exploration	30/04/1984	34.5	Null	1.5	Null	Null	1378.1	South-west
87	61605622	Stock and Domestic	30/06/1952	18.0	Null	3.7	Null	Null	1388.8	North-west
70	61605625	Stock and Domestic	30/06/1950	36.6	Null	Null	Null	Null	1391.7	West
212	61605798	Unknown	27/09/1977	21.9	23.0	12.2	Null	Null	1392.4	South-west
246	61610044	Monitoring	Null	Null	Null	2.5	Null	Null	1394.2	North-west
4	61605599	Irrigation	01/01/1900	26.2	Null	Null	1083 uS/cm	Null	1395.0	South-west
109	61670988	Unknown	26/11/2010	4.4	4.4	Null	Null	Null	1407.0	North-west
229	61606535	Unknown	15/02/1981	42.0	42.0	31.0	Null	Null	1408.2	West
178	61605790	Stock and Domestic	17/01/1978	36.6	Null	26.8	Null	Null	1410.2	West

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
117	61605787	Unknown	18/10/1977	10.4	10.4	4.0	Null	Null	1429.1	North-west
54	61606605	Stock and Domestic	01/01/1900	33.5	Null	Null	Null	Null	1433.5	West
94	61671781	Unknown	20/07/2000	41.0	41.0	Null	Null	Null	1437.4	South-west
220	61605839	Unknown	13/03/1978	29.9	29.5	20.5	Null	Null	1439.9	West
236	61612302	Unknown	Null	Null	Null	Null	Null	Null	1440.5	South-west
193	61606597	Stock and Domestic	15/01/1978	40.8	Null	31.7	Null	Null	1445.5	West
230	61606145	Unknown	30/06/1978	39.6	39.0	31.1	Null	Null	1448.7	South-west
156	61606229	Unknown	10/10/1978	33.8	Null	21.9	Null	Null	1453.2	West
140	61606231	Unknown	30/06/1978	24.4	Null	15.7	Null	Null	1453.3	South-west
40	61606610	Stock and Domestic	30/06/1979	34.8	Null	Null	Null	Null	1454.7	West
175	61606230	Unknown	05/07/1978	34.1	Null	26.1	Null	Null	1462.6	West
39	61606611	Stock and Domestic	01/01/1900	41.5	Null	Null	Null	Null	1463.6	West
53	61616141	Unknown	01/01/1900	42.9	Null	Null	Null	Null	1468.9	South-west
88	61605623	Stock and Domestic	30/06/1953	19.5	Null	3.7	Null	Null	1477.5	North-west
49	61616311	Stock and Domestic	01/01/1900	28.4	Null	Null	Null	Null	1478.5	West
138	61605598	Irrigation	01/01/1900	Null	Null	15.2	Null	Null	1479.8	North-west
186	61605789	Stock and Domestic	23/01/1978	36.0	Null	28.4	Null	Null	1481.0	West
31	61606612	Stock and Domestic	01/01/1900	30.5	Null	Null	Null	Null	1489.6	North-west
30	61606596	Stock and Domestic	15/11/1978	41.1	Null	Null	Null	Null	1503.2	West
32	61606613	Stock and Domestic	30/06/1978	37.5	Null	Null	Null	Null	1514.2	West
10	61605405	Irrigation	30/06/1964	25.3	Null	Null	Null	Null	1523.7	North
126	61606618	Stock and Domestic	15/04/1979	13.4	Null	9.8	Null	Null	1524.6	North-west
228	61605788	Stock and Domestic	30/06/1978	40.2	37.8	28.6	Null	Null	1526.9	North-west
143	61605797	Unknown	13/03/1978	29.3	Null	17.1	Null	Null	1530.4	South-west
185	61605791	Stock and Domestic	02/12/1977	39.6	Null	28.0	Null	Null	1533.0	West
184	61605838	Unknown	01/01/1900	42.4	Null	28.0	Null	Null	1539.6	West
44	61606619	Stock and Domestic	30/06/1950	15.2	Null	Null	Null	Null	1540.7	North-west
63	61606621	Stock and Domestic	30/06/1958	15.2	Null	Null	Null	Null	1541.4	North-west
6	61671818	Unknown	23/04/2003	39.0	Null	Null	Null	Null	1545.5	North-west
207	61606770	Water Supply	01/02/1993	32.0	30.4	9.0	Null	Null	1545.8	North
38	61606622	Stock and Domestic	15/01/1978	15.5	Null	Null	Null	Null	1546.5	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
103	61670906	Unknown	16/05/2012	17.0	17.0	Null	Null	Null	1547.7	North-west
192	61606594	Unknown	30/06/1980	41.8	Null	30.8	Null	Null	1554.0	West
201	61606113	Unknown	23/11/1977	45.7	Null	39.8	Null	Null	1558.7	South-west
98	61671773	Unknown	10/09/2004	30.0	29.4	Null	Null	Null	1561.2	North
96	61672024	Unknown	14/12/2008	12.0	12.0	Null	Null	Null	1561.4	South-west
154	61616160	Unknown	03/11/1977	32.3	Null	21.0	Null	Null	1562.4	West
233	61606228	Unknown	01/09/1978	46.3	46.0	38.7	Null	Null	1563.9	South-west
210	61610045	Monitoring	01/06/1978	22.0	21.0	10.7	Null	Null	1565.8	North-west
15	61616339	Stock and Domestic	01/01/1900	Null	Null	Null	Null	Null	1576.0	North-west
1	61605404	Unknown	30/06/1964	28.6	Null	Null	962 uS/cm	Null	1578.9	North
194	61606595	Stock and Domestic	01/01/1900	32.9	Null	32.0	Null	Null	1586.2	West
29	61606592	Stock and Domestic	15/03/1980	40.5	Null	Null	Null	Null	1591.7	West
177	61606408	Unknown	15/12/1978	36.0	Null	26.5	Null	Null	1593.9	North-west
234	61612324	Unknown	Null	Null	Null	Null	Null	Null	1594.8	West
34	61616142	Irrigation	01/01/1900	16.4	Null	Null	Null	Null	1597.2	South-west
75	61606623	Stock and Domestic	23/01/1978	9.1	Null	Null	Null	Null	1597.6	North-west
7	61605406	Irrigation	30/06/1964	26.2	Null	Null	Null	Null	1598.4	North
182	61606542	Stock and Domestic	01/01/1900	36.0	Null	27.4	Null	Null	1599.6	North-west
77	61606593	Stock and Domestic	30/06/1979	36.6	Null	Null	Null	Null	1599.9	West
209	61606637	Unknown	30/06/1981	38.0	32.3	9.7	Null	Null	1603.2	North
102	61670903	Unknown	18/02/2013	35.0	35.0	Null	Null	Null	1623.4	North-west
69	61606589	Stock and Domestic	30/06/1977	38.1	Null	Null	Null	Null	1625.7	West
19	61616350	Stock and Domestic	15/12/1979	Null	Null	Null	Null	Null	1630.3	North-west
76	61606590	Stock and Domestic	30/06/1979	30.5	Null	Null	Null	Null	1635.0	West
208	61605786	Stock and Domestic	10/11/1977	23.8	14.9	9.4	Null	Null	1636.8	North-west
127	61606620	Stock and Domestic	30/06/1958	11.6	Null	10.1	Null	Null	1637.4	North-west
227	61611637	Exploration	01/01/1900	57.0	56.5	27.5	1420 uS/cm	Null	1640.2	South-west
226	61611639	Exploration	30/06/1991	56.9	32.7	27.3	24900 uS/cm	Null	1640.8	South-west
158	61606235	Unknown	30/06/1978	35.6	Null	23.2	Null	Null	1643.1	West
225	61611638	Exploration	30/06/1991	43.0	39.5	27.3	1320 uS/cm	Null	1643.2	South-west
104	61606491	Unknown	12/03/1971	38.1	36.6	Null	Null	Null	1643.9	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
45	61606624	Stock and Domestic	30/06/1979	15.8	Null	Null	Null	Null	1644.2	North-west
61	61606625	Stock and Domestic	30/06/1940	10.7	Null	Null	Null	Null	1648.1	North-west
181	61605624	Stock and Domestic	30/06/1979	39.6	Null	27.4	Null	Null	1649.7	West
91	61671778	Unknown	12/05/2000	43.0	42.5	Null	Null	Null	1674.7	West
67	61606591	Stock and Domestic	15/02/1979	37.5	Null	Null	Null	Null	1678.6	West
20	61616351	Stock and Domestic	01/01/1900	Null	Null	Null	Null	Null	1694.7	North-west
243	61612326	Unknown	Null	Null	Null	Null	Null	Null	1701.5	North-west
2	61605600	Irrigation	01/01/1900	Null	Null	Null	1393 uS/cm	Null	1701.7	South-west
68	61606614	Stock and Domestic	15/03/1978	41.1	Null	Null	Null	Null	1710.3	West
121	61606224	Stock and Domestic	18/12/1978	16.8	15.2	5.8	Null	Null	1710.6	North-west
130	61605487	Irrigation	01/01/1900	Null	Null	11.6	Null	Null	1721.7	North
142	61606085	Unknown	29/12/1977	22.9	Null	16.8	Null	Null	1722.2	North
5	61605602	Irrigation	01/01/1900	18.3	Null	Null	973 uS/cm	Null	1729.1	North-west
59	61616296	Unknown	01/01/1900	35.0	Null	Null	Null	Null	1730.2	West
214	61606276	Unknown	13/10/1978	26.0	24.0	15.4	Null	Null	1735.9	North
90	61606626	Stock and Domestic	01/01/1900	6.7	Null	6.1	Null	Null	1748.8	North-west
165	61605840	Unknown	11/02/1978	36.6	Null	23.8	Null	Null	1754.7	West
35	61606617	Stock and Domestic	30/06/1977	24.4	Null	Null	Null	Null	1757.2	North-west
73	61606586	Stock and Domestic	01/01/1900	28.4	Null	Null	Null	Null	1757.6	West
153	61605792	Stock and Domestic	01/01/1900	32.9	Null	20.4	Null	Null	1759.8	West
159	61605663	Unknown	30/06/1976	32.0	Null	23.2	Null	Null	1765.1	South-west
135	61616294	Unknown	01/01/1900	18.3	Null	14.3	Null	Null	1768.0	North-west
9	61606286	Unknown	04/12/1978	34.7	Null	Null	Null	Null	1773.0	South-west
163	61605819	Unknown	13/02/1978	30.5	Null	23.8	Null	Null	1774.6	South-west
62	61605628	Stock and Domestic	30/06/1972	42.7	Null	Null	Null	Null	1785.7	West
148	61616157	Unknown	11/02/1978	26.3	Null	19.0	Null	Null	1800.6	West
219	61605793	Unknown	23/02/1978	29.3	26.2	18.4	Null	Null	1800.6	West
71	61606587	Stock and Domestic	01/01/1900	22.9	Null	Null	Null	Null	1802.6	West
151	61605712	Unknown	08/03/1978	28.4	Null	19.8	Null	Null	1809.0	South-west
55	61606585	Stock and Domestic	30/06/1979	22.9	Null	Null	Null	Null	1809.7	West
213	61606402	Unknown	15/03/1980	48.8	39.3	14.2	Null	Null	1818.7	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
24	61606616	Stock and Domestic	15/04/1980	Null	Null	Null	Null	Null	1819.5	North-west
52	61606588	Stock and Domestic	30/06/1960	24.4	Null	Null	Null	Null	1822.6	West
18	61606584	Stock and Domestic	01/01/1900	Null	Null	Null	Null	Null	1829.8	West
12	61606287	Stock and Domestic	18/11/1978	13.1	Null	Null	Null	Null	1831.7	North-west
25	61616321	Stock and Domestic	30/06/1979	Null	Null	Null	Null	Null	1831.8	West
3	61605594	Irrigation	01/01/1900	Null	Null	Null	674 uS/cm	Null	1840.1	North-west
215	61605785	Stock and Domestic	05/09/1977	25.6	24.5	16.0	Null	Null	1841.8	West
224	61622161	Stock and Domestic	19/03/1997	45.3	45.3	24.5	Null	Null	1852.6	North
237	61612315	Unknown	Null	Null	Null	Null	Null	Null	1864.3	South-west
134	61605734	Unknown	13/10/1977	25.3	Null	13.5	Null	Null	1864.7	South-west
147	61606277	Stock and Domestic	24/10/1978	30.5	Null	18.9	Null	Null	1865.1	North
144	61605794	Unknown	14/12/1977	27.4	Null	17.7	Null	Null	1865.7	West
168	61605287	Unknown	01/01/1900	24.4	Null	24.2	Null	Null	1873.3	West
50	61606581	Stock and Domestic	30/06/1979	24.4	Null	Null	Null	Null	1875.7	West
78	Null	Water Supply	22/05/1931	410.1	Null	Null	Null	Null	1876.8	North-east
217	61605578	Irrigation	30/06/1972	56.1	45.1	17.7	Null	Null	1879.7	North
205	61615023	Monitoring	22/05/1931	410.1	410.0	8.5	Null	Null	1882.2	North-east
202	61615024	Monitoring	12/09/1932	734.0	713.6	6.8	2499 uS/cm	Null	1882.2	North-east
137	61605735	Unknown	18/07/1977	29.3	Null	14.8	Null	Null	1897.1	South-west
167	61605843	Unknown	01/03/1978	35.4	Null	23.8	Null	Null	1900.8	West
171	61606532	Unknown	15/11/1980	38.1	Null	24.9	Null	Null	1905.4	West
27	61616300	Stock and Domestic	15/02/1980	Null	Null	Null	Null	Null	1912.1	South-west
183	61605818	Unknown	04/01/1978	34.3	Null	27.9	Null	Null	1912.2	South-west
149	61606520	Unknown	08/11/1979	26.5	Null	19.0	Null	Null	1915.4	North
14	61605574	Unknown	30/06/1972	20.7	Null	Null	Null	Null	1917.6	North-east
13	61605573	Unknown	30/06/1972	17.1	Null	Null	Null	Null	1917.8	North-east
240	61612321	Unknown	Null	Null	Null	Null	Null	Null	1925.0	West
66	61606578	Stock and Domestic	30/06/1967	16.5	Null	Null	Null	Null	1928.9	West
33	61616136	Irrigation	01/01/1900	24.0	Null	Null	Null	Null	1937.1	West
37	61606579	Stock and Domestic	30/06/1978	19.8	Null	Null	Null	Null	1939.7	West
216	61605733	Unknown	06/02/1978	29.3	26.0	16.8	Null	Null	1941.2	South-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity/ TDS (mg/l)	Yield (L/s)	Distance (m)	Direction
242	61612314	Unknown	Null	Null	Null	Null	Null	Null	1943.2	South-west
72	61606583	Stock and Domestic	30/06/1979	18.3	Null	Null	Null	Null	1954.2	West
57	61606580	Stock and Domestic	30/06/1976	19.8	Null	Null	Null	Null	1956.4	West
64	61606582	Stock and Domestic	30/06/1976	18.3	Null	Null	Null	Null	1959.9	West
162	61616256	Stock and Domestic	30/06/1978	27.8	Null	23.6	Null	Null	1972.6	South-west
152	61605728	Unknown	14/12/1977	32.3	Null	20.4	Null	Null	1974.7	South-west
172	61605844	Unknown	15/11/1977	30.2	Null	25.8	Null	Null	1975.3	West
223	61611640	Exploration	30/06/1991	48.1	44.1	22.8	1080 uS/cm	Null	1980.6	West
179	61605842	Unknown	28/12/1977	32.9	Null	27.0	Null	Null	1981.4	West
221	61611641	Exploration	30/06/1991	45.2	38.2	22.7	1110 uS/cm	Null	1982.6	West
222	61611642	Exploration	30/06/1991	30.2	30.2	22.8	1380 uS/cm	Null	1983.6	West
46	61606577	Stock and Domestic	01/01/1900	19.5	Null	Null	Null	Null	1990.4	West
16	61616185	Unknown	14/11/1978	Null	Null	Null	Null	Null	1998.1	South-west

Note: The use of the symbol "-" or "Null" indicates that no records were found.
SWL: Standing Water Level (the latest record is displayed). RWL: Rest Water Level (the latest record is displayed). TSS: Total Soluble Salts.
Source: Groundwater Bores & Lithology

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61605299	0m-2.7m Sandy clay yellow. 2.7m-4.3m Clay yellow. 4.3m-6.1m Light grey sandy clay, sand predominant, water at 14ft. 6.1m-7.3m Coarse light grey sand, hydrostatic 4-7ft inside 6 in. 7.3m-9.8m Finer sand, grey with increasing clay content. 9.8m-11.6m As above, clay yellow. 11.6m-12.2m Hard grey clay.	44.1	West
61671740	0m-3m YELLOW SAND 3m-14m BROWN CLAY 14m-17m BROWN CLAY; COARSE SAND LAYERS 17m-19m BROWN CLAY 19m-23m FINE SILTY RED-BROWN CLAY 23m-26m MEDIUM-COARSE ANGULAR SAND; POORLY SORTED 26m-29.5m GREY CLAY 29.5m-31m FINE YELLOW SAND 31m-35.9m COARSE QUARTZ GRAVEL & SAND 35.9m-36m BLACK SHALE	71.1	South
61606683	0m-2.8m Yellow sand. 2.8m-11m Solid brown - reddish clay. 11m-16m Solid sandy clay. 16m-19m Sandy clay, soupy. 19m-22.2m Solid grey clay. 22.2m-24.9m Sandy grey clay. 24.9m-25.8m Coarse sand, some clay. 25.8m-35.6m Very coarse sand and pebbles. 35.6m-36m Yellow clay.	117.1	West
61606272	0m-1.8m Sand. 1.8m-5.2m Sand and limestone. 5.2m-5.5m River mud.	306.0	North
61671787	0m-16m YELLOW SAND 16m-18m LIMESTONE 18m-20m SAND	338.9	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	20m-21m LIMESTONE 21m-23m MEDIUM-FINE SAND 23m-24.5m CLAY 24.5m-26m LIMESTONE 26m-26.5m CLAY 26.5m-30m LIMESTONE 30m-31m CLAY 31m-32m LIMESTONE 32m-35m CLAY 35m-38m SANDY CLAY 38m-40m LIMESTONE 40m-40.5m CLAY 40.5m-42m LIMESTONE 42m-44m CLAY 44m-46m LIMESTONE 46m-54m MEDIUM SAND		
61616313	Null	414.1	North
61605474	0m-16.1m Yellow sand. 16.1m-17.1m Stiff blue clay. 17.1m-18m Sand and water. 18m-19.5m Limestone. 19.5m-20.7m Red clay. 20.7m-21.9m Limestone. 21.9m-22.6m Clay. 22.6m-23.2m Limestone. 23.2m-25.3m Coarse sand and water. 25.3m-34.1m Coarse sand.	422.9	North
61671842	Null	430.0	North-east
61610118	Null	430.7	South-west
61670899	0m-10m Sand; yellow 10m-11m Clay; yellow; sandy 11m-12m Clay; yellow; cream and red 12m-17.5m Clay; yellow; sandy 17.5m-22m Clay; yellow and cream 22m-25m Clay; red and yellow 25m-31m Sand; good coarse with small amount of clay	512.9	West
61606271	0m-16.5m Yellow sand and from 54ft 3 in brown clay. 16.5m-17.1m Brown clay sand and from 56ft 3 in to 4 in brown clay. 17.1m-18.3m Brown clay sand. 18.3m-20.7m Floaters in brown clay sand. 20.7m-23.2m Brown clay. 23.2m-24.1m Brown clay sand. 24.1m-25m Brown clay. 25m-27.4m Brown clay sand and from 90ft 6 in brown clay. 27.4m-33.5m Brown clay sand (6ft of very coarse quartz sand) and from 110ft 3 in brown clay. 33.5m-36.6m Brown clay sand (2ft of small rocks) and from 120ft 3 in to 4 in white clay. 36.6m-42.1m Very fine white clay sand and from 138ft 2 in to 3 in red clay. 42.1m-42.7m Very fine red clay sand. 42.7m-42.7m Blue clay.	556.1	North-east
61606760	0m-3m Fine sand. 3m-15m Fine/med. Sand. 15m-25m Med. Sands. 25m-28m Medium, some coarse. 28m-29m Not logged. 29m-29m Clay.	557.8	West
61616177	0m-2.4m Well liners. 2.4m-6.1m Sand (yellow fine) 6.1m-8.2m Clay (green) 8.2m-8.8m L/stone. 8.8m-9.4m Clay. 9.4m-10.7m L/stone, and sand layers. 10.7m-10.7m Brown clay.	567.0	North-east
61605817	0m-18.3m Sand.	620.4	North-west
61605835	0m-13.1m Yellow sand. 13.1m-18.3m L/stone.	681.8	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	18.3m-20.1m Capstone. 20.1m-22.9m Hard l/stone. 22.9m-27.4m Soft l/stone. 27.4m-31.7m Hard l/stone. 31.7m-34.1m Soft fine sand.		
61605799	0m-8.8m Yellow sand. 8.8m-13.4m Hard limestone. 13.4m-14.6m Soft sandy limestone. 14.6m-34.1m Hard band limestone.	705.9	West
61606233	Null	709.4	West
61606232	0m-15.2m Sand. 15.2m-21.3m Soft limestone. 21.3m-29.3m Yellow sand coarse some clay particles.	710.3	South-west
61670902	0m-2m Top sand 2m-7m Clay; firm 7m-9m Silt 9m-14m Clay; soft; sandy 14m-16m Sand; medium 16m-20m Sand; medium to coarse	722.4	South
61672170	Null	757.8	South
61672171	Null	763.5	South
61605591	Null	810.2	West
61606492	Null	829.2	North-west
61605828	0m-9.1m Yellow sand. 9.1m-13.7m Soft limestone. 13.7m-16.5m Hard limestone. 16.5m-18.3m Soft limestone. 18.3m-21.9m Soft limestone and red sand. 21.9m-23.2m Hard limestone. 23.2m-27.4m Soft limestone.	906.9	West
61605652	0m-16.8m Yellow sand. 16.8m-22.9m Yellow sand and limestone. 22.9m-24.4m Limestone and yellow sand. 24.4m-31.1m Limestone. 31.1m-38.4m Limestone soft. 38.4m-39.6m Limestone hard.	907.1	West
61606494	0m-5.8m Sand. 5.8m-10.5m L/stone (some sand) 10.5m-12.2m Sand.	917.5	West
61606241	0m-17.7m Yellow sand. 17.7m-21.3m Broken limestone.	935.0	South-west
61616373	Null	958.4	South-west
61605827	0m-10.1m Yellow sand. 10.1m-13.7m Soft limestone yellow sand. 13.7m-23.8m Hard bands limestone. 23.8m-24.7m Soft limestone. 24.7m-36.6m Hard bands limestone.	969.5	West
61616159	0m-9.1m Yellow sand fine. 9.1m-27.1m Limestone.	1037.9	South-west
61606599	Null	1038.9	West
61605825	0m-1.5m Top soil. 1.5m-14.6m Yellow coarse sand. 14.6m-15.2m Sandy clay. 15.2m-33.5m Limestone (broken)	1059.8	South-west
61605823	0m-7.3m Yellow sand. 7.3m-12.2m Brown sand. 12.2m-13.1m Capstone. 13.1m-15.2m Limestone.	1060.1	South-west
61605829	0m-13.7m Red sand. 13.7m-35.4m Limestone sandstone and sand bands. 35.4m-40.2m Water bearing sand.	1068.3	West
61616259	Null	1076.8	West
61616331	Null	1085.3	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61605824	0m-16.5m Sand. 16.5m-29.3m Limestone.	1103.6	South-west
61616265	Null	1105.7	South-west
61616254	Null	1113.9	South-west
61670990	Null	1115.4	North
61605826	0m-12.2m Sand. 12.2m-24.4m Limestone. 24.4m-36m Sand.	1136.5	South-west
61605667	0m-5.5m Black sand. 5.5m-17.7m Yellow sand. 17.7m-23.8m Limestone, hard bands. 23.8m-25m Capstone. 25m-29.9m Limestone. 29.9m-31.1m Capstone. 31.1m-32m Hard limestone. 32m-35.6m Soft limestone.	1139.7	West
61670992	Null	1142.3	North-west
61605831	0m-4.6m Sand. 4.6m-36.6m Limestone. 36.6m-39.6m Capstone (or very hard limestone or sandstone) 39.6m-48.8m Limestone.	1145.8	West
61606598	Null	1156.0	West
61605830	0m-9.8m Yellow sand. 9.8m-36.6m Soft limestone with some hard layers. 36.6m-42.1m Yellow sand.	1156.5	West
61605832	0m-2.4m Back fill (bricks and limestone) 2.4m-10.4m Sand. 10.4m-29.3m Limestone. 29.3m-40.2m Sand.	1176.0	South-west
61606225	Null	1181.5	West
61606600	Null	1187.6	West
61606123	0m-9.1m Sand. 9.1m-30.5m Limestone. 30.5m-41.1m Sand.	1189.4	South-west
61670986	0m-1.8m Sand; white yellow; fine to medium grained; some limestone 1.8m-4.5m Sand; yellow; medium grained 4.5m-6m Sand; white grey; medium to coarse grained; some organics 6m-8m Sand; grey; medium grained	1190.5	North-west
61606116	0m-27.4m Sand - sample held - except between 70-80 limestone concretions - sample held.	1194.7	South-west
61606234	Null	1197.8	West
61616333	Null	1202.2	West
61606603	Null	1207.9	North-west
61670982	0m-1.8m Sand fill; fine to medium; white yellow; trace of limestone 1.8m-4.6m Sand; yellow 4.6m-6m Sand; medium to coarse; rounded; white grey; trace organic flecks 6m-6.5m Sand; grey	1211.7	North-west
61605388	Null	1218.9	North
61606602	Null	1219.3	West
61606240	Null	1223.2	South-west
61612322	Null	1225.1	West
61606257	Null	1227.2	North-west
61606601	Null	1227.6	West
61605833	0m-6.7m Yellow sand. 6.7m-32.9m Hard bands limestone. 32.9m-38.4m Capstone. 38.4m-42.7m Hard bands limestone. 42.7m-43m Brown clay. 43m-45.7m Limestone fine sands.	1237.7	South-west
61605621	Null	1238.6	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61670984	0m-0.4m Sandy fill; fine to medium; white yellow; with some limestone 0.4m-5.4m Sand; medium to coarse; rounded; yellow red; trace organic; trace wood and roots	1239.8	North-west
61616261	Null	1243.6	South-west
61612325	Null	1246.2	West
61671779	0m-1m TOP OVERBURDEN 1m-8m ORANGE SAND 8m-21m LIMESTONE 21m-25m ORANGE SAND 25m-30m LIMESTONE 30m-34m ORANGE SAND MED GRAIN 34m-38m LIGHT BEIGE SANDS MED GRAIN 38m-44m ORANGE SAND (LIGHT) MED TO FINE 44m-45m LIMESTONE CAVERNOUS	1253.3	West
61616334	Null	1255.9	North-west
61616158	0m-14.6m Sand. 14.6m-17.1m Limestone soft. 17.1m-27.4m Limestone hard to very hard in layers.	1257.4	South-west
61606543	Null	1258.5	West
61606615	Null	1263.2	North-west
61605836	0m-7.9m Sand. 7.9m-20.1m L/stone hard bands. 20.1m-21.3m Sand. 21.3m-23.8m L/stone. 23.8m-25m Cavern. 25m-27.4m L/stone. 27.4m-29.9m Sand. 29.9m-36m L/stone hard band 2 inch brown clay. 36m-38.1m L/stone fine sands.	1267.6	West
61606226	Null	1273.5	West
61606686	0m-7.3m (Drillers log) yellow sand. 7.3m-40.2m Limestone, some hard bands. 40.2m-51.2m We think limestone and one band of yellow clay around 46.93m. 51.2m-56.7m Not logged.	1274.3	West
61672031	0m-3.5m YELLOW BROWN SAND 3.5m-7m SLOPPY YELLOW SAND 7m-13.5m MEDIUM WHITE SAND 13.5m-17m MEDIUM - COARSE WHITE SAND WITH CLAY BANDS 17m-19m FINE GREY SAND WITH CLAY 19m-21m MEDIUM COARSE QUARTZ SAND WITH PEBBLES 21m-31m MEDIUM - COARSE YELLOW SAND 31m-32m BLACK CLAY	1295.4	North-west
61670983	0m-2.9m Sand; medium to coarse; rounded; yellow red; trace of organic flecks 2.9m-4m Sand; yellowish 4m-4.5m Sand; medium to coarse; rounded; grey and yellow 4.5m-5.9m Sand; greyish	1297.0	North-west
61606609	Null	1301.9	West
61606604	0m-0.6m Top soil 0.6m-11m Yellow sand 11m-14.9m Limestone 14.9m-15.2m Sabd 15.2m-16.1m Limestone 16.1m-17.7m Capstone 17.7m-18.6m Limestone 18.6m-21.9m White sand and stone 21.9m-25.3m Stone and sand 25.3m-31.7m Not logged	1309.0	North-west
61670989	Null	1309.2	North
61670985	0m-2.5m Sand; yellow orange; medium to coarse grained; some organics 2.5m-4.5m Sand; yellow; medium grained 4.5m-6m Sand; yellow grey; medium to coarse grained 6m-8m Sand; grey; medium grained	1319.6	North-west
61605837	0m-6.1m Sand. 6.1m-11m Light brown sand. 11m-15.9m Clay sands.	1320.3	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	15.9m-17.7m Hard and soft sandstone layers. 17.7m-34.1m Soft sandstone. 34.1m-36.6m Hard rough sandstone. 36.6m-47.5m Sand. 47.5m-49.4m Not logged.		
61672141	0m-1m Yellow sand 1m-2m Brown sand 2m-3.5m Yellow sand 3.5m-7m Sloppy yellow sand 7m-9m Fine cream sand 9m-13.5m Medium white sand 13.5m-14m Medium - coarse white sand 14m-19m Sloppy fine green sand; clay pieces 19m-21m Medium - coarse sand and quartz pebbles 21m-21.5m Fine - medium yellow sand 21.5m-26.5m Medium - coarse yellow sand	1321.0	North-west
61612317	Null	1330.2	South-west
61606607	Null	1331.3	North-west
61606377	0m-9.1m Yellow sand. 9.1m-18.3m Hard limestone. 18.3m-32.9m Limestone and sand bands. 32.9m-33.2m Fractured limestone. 33.2m-37.5m Yellow sand. 37.5m-41.4m Soft limestone. 41.4m-42.6m Sand, medium. 42.6m-45.7m Sand, coarse. 45.7m-45.7m Clay, brown.	1336.4	South-west
61616150	0m-12.2m Yellow sand. 12.2m-15.5m Limestone. 15.5m-16m Capstone. 16m-24.4m Limestone. 24.4m-28.6m Yellow sand fine. 28.6m-32.9m Silty sand. 32.9m-44.2m Red clay. 44.2m-44.4m Red coarse sand. 44.4m-45.7m Red clay. 45.7m-59.4m Black clay.	1336.7	South-west
61605834	0m-9.1m Yellow sand. 9.1m-12.8m Capstone. 12.8m-21.9m Hard limestone. 21.9m-30.5m Soft limestone. 30.5m-36m Hard limestone. 36m-37.2m Capstone. 37.2m-46.9m Limestone bands with sand.	1344.7	South-west
61606608	Null	1346.2	West
61606865	Null	1348.9	North
61616298	Null	1350.2	South-west
61671918	0m-4m YELLOW SANDS 4m-12m WHITE SANDS 12m-18m COARSE WHITE SANDS 18m-20m SLIGHTLY DARKER SANDS: White grey colour 20m-23m YELLOW BROWN COLOURED SANDS 23m-25.5m SOFT YELLOW LIMESTONE AND SLIGHTLY DARKER BROWN SANDS 25.5m-28m DARKISH BROWN YELLOW SANDS; VERY COARSE 28m-30m DARKISH SANDS; LIMESTONE AND COARSE QUARTZ 30m-33m BROWN REDDISH CLAYS TURNING INTO BLACK CLAY	1354.9	North-west
61606606	Null	1363.9	North-west
61606227	0m-11.9m Sand. 11.9m-12.2m Capstone. 12.2m-12.5m Limestone. 12.5m-29.9m Hard limestone. 29.9m-36.6m Water sands.	1367.5	West
61611789	Null	1374.1	South-west
61611790	Null	1374.8	South-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61611786	Null	1374.8	South-west
61611787	Null	1374.8	South-west
61611785	Null	1374.8	South-west
61611788	Null	1374.8	South-west
61606782	0m-9m Sand. 9m-11m Limestone. 11m-19m Clay. 19m-25m Sand. 25m-28m Clay. 28m-30m Sandstone. 30m-31m Clay. 31m-34.5m Sandstone.	1378.1	South-west
61605622	Null	1388.8	North-west
61605625	Null	1391.7	West
61605798	0m-21.9m Yellow sand.	1392.4	South-west
61610044	Null	1394.2	North-west
61605599	Null	1395.0	South-west
61670988	Null	1407.0	North-west
61606535	0m-16m Yellow sand 16m-32m Soft limestone 32m-40m Water-bearing sand 40m-42m Soft limestone (honeycomb)	1408.2	West
61605790	0m-8.5m Sand. 8.5m-36.6m Limestone.	1410.2	West
61605787	0m-2.4m Liners. 2.4m-4m Yellow sand (13ft coffee rock) 4m-5.5m Yellow sand (13ft coffee rock) 5.5m-8.2m Cream soup sand. 8.2m-10.4m White sand fine.	1429.1	North-west
61606605	Null	1433.5	West
61671781	0m-12m Yellow sand 12m-21m Yellow sand and soft limestone 21m-28m White sand (med) 28m-28.5m Limestone (soft) lost circulation 28.5m-33m Sand (med) 33m-34m Orange clay 34m-41m Orange sand (coarse) with washed river stones	1437.4	South-west
61605839	0m-14m Sand. 14m-19m L/stone. 19m-29.9m Sand and l/stone.	1439.9	West
61612302	Null	1440.5	South-west
61606597	0m-1.5m Brown soil and sand 1.5m-9.8m Yellow calcarenite very weakly consolidated 9.8m-24.4m Calcarenite with arenite bands med hard penetration 10ft /hr 24.4m-30.5m Softer calcarenite 30.5m-31.7m Hard capstone-met water table 104ft - standing water table 101ft 31.7m-36.6m Hard limetone slow drilling 1-2 in / minute 36.6m-40.2m Soft yellow-cream calcarenite/sand. Med-coarse grained quartz subrounded, mod-poor sorting 40.2m-40.8m Not logged	1445.5	West
61606145	0m-9.1m Sand. 9.1m-22.9m Limesetone and sand. 22.9m-28.4m Limestone. 28.4m-35.6m Limestone and sand. 35.6m-38.4m Sand (medium grained) 38.4m-39.6m Sandy clay.	1448.7	South-west
61606229	0m-12.2m Sand. 12.2m-20.7m Limestone. 20.7m-25.6m Sand. 25.6m-33.8m Limestone.	1453.2	West
61606231	0m-8.5m Mainly red sand. 8.5m-24.4m Limestone, sandstone, sand bands.	1453.3	South-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61606610	Null	1454.7	West
61606230	0m-9.1m Yellow sand. 9.1m-15.2m Soft limestone. 15.2m-23.2m Hard limestone. 23.2m-24.4m Sand. 24.4m-25m Hard limestone. 25m-28m Sand. 28m-28.6m Hard limestone. 28.6m-34.1m Fractured limestone.	1462.6	West
61606611	Null	1463.6	West
61616141	Null	1468.9	South-west
61605623	Null	1477.5	North-west
61616311	Null	1478.5	West
61605598	Null	1479.8	North-west
61605789	0m-9.1m Yellow sand. 9.1m-17.7m Limestone and yellow sand. 17.7m-25.6m Hard limestone. 25.6m-32m Broken and fractured limestone. 32m-33.2m Capstone. 33.2m-36m Hard limestone some particles white clays small bands.	1481.0	West
61606612	Null	1489.6	North-west
61606596	Null	1503.2	West
61606613	Null	1514.2	West
61605405	0m-7.3m Well. 7.3m-16.8m Yellow sand. 16.8m-18.6m Fine white sand. 18.6m-25.3m Coarse brown sand.	1523.7	North
61606618	Null	1524.6	North-west
61605788	0m-1.8m Grey sand. 1.8m-9.1m Red sand. 9.1m-40.2m Mainly limestone.	1526.9	North-west
61605797	0m-9.1m Red sand. 9.1m-29.3m Limestone mainly with some red sand bands.	1530.4	South-west
61605791	0m-10.7m Sand. 10.7m-39.6m Limestone.	1533.0	West
61605838	0m-18.3m Sand. 18.3m-21.3m L/stone rubble. 21.3m-24.4m Hard limestone. 24.4m-33.5m Banded sand and l/stone. 33.5m-42.1m Clay sand. 42.1m-42.4m Not logged.	1539.6	West
61606619	Null	1540.7	North-west
61606621	Null	1541.4	North-west
61671818	0m-1m TOP OVERBURDEN 1m-7m ORANGE SAND 7m-18m LIMESTONE 18m-19m LIMESTONE CAVITY (lost circulation) 19m-36m LIMESTONE: no samples 36m-39m RUNNING SANDS: Good grain	1545.5	North-west
61606770	0m-24m Sand, yellow, fine poorly sorted. 24m-27m Sand, yellow, coarse, subrounded, well sorted. 27m-29m Limestone, broken. 29m-31m Limestone, fractured. 31m-32m Shale, black.	1545.8	North
61606622	Null	1546.5	North-west
61670906	0m-5m Sand; yellow; top 5m-10m Sand; cream; fine 10m-17m Sand; light cream; fine to medium	1547.7	North-west
61606594	Null	1554.0	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61606113	0m-7m Sand. 7m-42.4m L/stone. 42.4m-45.7m Sand.	1558.7	South-west
61671773	0m-1m TOP OVERBURDEN 1m-12m ORANGE SANDS 12m-22m LIGHT BEIGE SANDS MEDIUM TO FINE 22m-29m BROWN SANDS WITH LIGHT CLAY CONTENT 29m-30m LIGHT OFFWHITE CLAYS ONTO STONE CAVERNOUS SECTION LOST RECIRCULATION NO EXACT SAMPLES	1561.2	North
61672024	0m-6m SAND 6m-12m LIMESTONE	1561.4	South-west
61616160	0m-13.4m Yellow sand. 13.4m-22.3m L/stone. 22.3m-24.1m Sand and patches l/stone. 24.1m-32.3m Coarse sand.	1562.4	West
61606228	0m-7.9m Red sand. 7.9m-41.1m Limestone. 41.1m-46m Fine sands and bands limestone. 46m-46.3m Clay?	1563.9	South-west
61610045	Null	1565.8	North-west
61616339	Null	1576.0	North-west
61605404	0m-10.4m Well. 10.4m-16.1m Fine white sand. 16.1m-16.8m Fine yellow sand. 16.8m-18.6m Fine white sand. 18.6m-22.3m Fine brown sand. 22.3m-28.6m Dark brown sand.	1578.9	North
61606595	Null	1586.2	West
61606592	Null	1591.7	West
61606408	Null	1593.9	North-west
61612324	Null	1594.8	West
61616142	Null	1597.2	South-west
61606623	Null	1597.6	North-west
61605406	0m-7.6m Well. 7.6m-11m Yellow sand. 11m-18.9m Fine white sand. 18.9m-22.3m Fine brown sand. 22.3m-24.7m Coarse brown sand. 24.7m-26.2m Coarse brown sand.	1598.4	North
61606542	Null	1599.6	North-west
61606593	Null	1599.9	West
61606637	0m-10m Yellow sand 10m-12m Lighter yellow sand 12m-13.5m Brown sand 13.5m-16m Light brown sand 16m-19m Light coloured whitish sand fine 19m-20m As above 0.20 20m-23m Dirty yellow and clay mixture 0.025 23m-23.5m Coarser grey sand 0.025 to 0.030 23.5m-24m Band, light blue silt 24m-25m Good brown sand 0.025 25m-27m Dark brown sand and pebbles 0.025-0.040 27m-29.5m Bits of limestone and sand 0.030 29.5m-32m Brown sand bits limestone, limestone bars 0.025-0.030 32m-38m Brown gritty clay	1603.2	North
61670903	0m-1m Top soil 1m-8.5m Sand; yellow 8.5m-18m Limestone and yellow sands 18m-22m Limestone 22m-26m Limestone and yellow sands 26m-34m Goldy brownish sands and limestone 34m-35m Limestone	1623.4	North-west
61606589	Null	1625.7	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61616350	Null	1630.3	North-west
61606590	Null	1635.0	West
61605786	0m-0.9m Roots and rubbish. 0.9m-8.8m Yellow to white sand. 8.8m-15.9m Sloppy sand. 15.9m-16.5m Limestone. 16.5m-20.4m Fine lemon sand. 20.4m-23.8m Very coarse lemon sand.	1636.8	North-west
61606620	Null	1637.4	North-west
61611637	0m-4m Sand - brownish-yellow; coarse grained (range from very fine to very coarse), well sorted and subrounded to well rounded quartz; trace of very fine dark coloured heavy minerals. 4m-11.8m Sand - yellow; fine to medium grained (range from very fine to very fine pebbles), well sorted and subrounded to well rounded quartz; grains coloured and stained yellow by adhering clay; about 0.5% fine dark-coloured heavy minerals; trace of pink?cher; sl 11.8m-28m Limestone - cream, very hard, cavernous; medium grained, moderately sorted, subangular to well rounded quartz about 85%; about 5% of grains stained yellow; carbonate cement about 15%; 0.5% fine grained, dark coloured heavy minerals. 28m-29.5m Sand - pale brownish yellow; coarse grained (range from very fine to very fine pebbles), moderately sorted and subangular to very well round quartz (rounded grains are polished); about 50% of the grains are stained pale yellow to pale orangish brown; medi 29.5m-30m Sand, limestone, clay: sand - as above. Limestone-cream to pale brown, hard, fossiliferous; grains as above with about 15% carbonate cement; contains bivalves (including ostrea) up to 40mm long, and gastropods. Clay - thin layer; pale grey but mainly ox 30m-31m Sand-pale greyish yellow; coarse grained (range from very fine to very coarse), well sorted and subangular to well rounded quartz; trace of dark coloured heavy minerals. 31m-44m Sand-yellow to moderate yellowish brown; slightly clayey; coarse to very coarse grained (range from very fine to 40 mm diameter pebbles), very poorly sorted, subangular to well rounded quartz and quartzite, trace of heavy minerals. 44m-46.5m Sand and gravel - as above with rounded pebbles of quartz, quartzite, chert, granite (feldspar altered and silicified(and ferruginous sandstone. 46.5m-48.5m Sand and limestone; sand - pale mustard, slightly clayey; medium grained (range from very fine to very fine pebbles), poorly sorted, subangular to well rounded quartz; trace of heavy minerals. Limestone-cream and minor pale brown, hard, fossiliferous; gr 48.5m-50m Sand-pale greyish cream; very coarse grained (range from very fine to very fine pebbles), moderately sorted and subangular to well rounded quartz; trace of heavy minerals. 50m-51.5m Sand-yellowish brown; coarse grained (range from very fine to 10mm pebbles), poorly sorted, subangular to well rounded quartz; trace of heavy minerals, some phosphatic nodules (<10mm length) 51.5m-56.5m Sand-slightly clayey; pale grey to pale olive-grey; coarse to very coarse grianed (range from very fine to 10mm pebbles), poorly sorted, subangular to well rounded quartz; trace of heavy minerals, some phosphatic nodules (<10mm length) 56.5m-56.9m Shale-dark grey. 56.9m-57m Not logged.	1640.2	South-west
61611639	Null	1640.8	South-west
61606235	0m-8.2m Sand. 8.2m-17.1m Limestone. 17.1m-24.4m Sand. 24.4m-25.9m Limestone. 25.9m-27.4m Sand. 27.4m-35.6m Limestone.	1643.1	West
61611638	Null	1643.2	South-west
61606491	0m-23.2m Not logged. 23.2m-23.8m Fine white sand. 23.8m-27.4m Porous limestone with sand layers. 27.4m-29m Fine grained yellow sand. 29m-31.4m Fine med and coarse grn sand. 31.4m-33.5m Med and coarse gren sand.	1643.9	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	33.5m-34.8m Fine grain yellow sandy clay. 34.8m-36m Fine med and coarse grn white sand. 36m-36.6m Coarse grain brown sand. 36.6m-38.1m Greenish yellow fine grn sand.		
61606624	Null	1644.2	North-west
61606625	Null	1648.1	North-west
61605624	Null	1649.7	West
61671778	0m-12m YELLOW SAND 12m-16m LIMESTONE 16m-20m SAND FINE 20m-22m LIMESTONE 22m-25m SAND FINE 25m-29m LIMESTONE 29m-33m SAND MEDIUM 33m-42.9m SAND COARSE 42.9m-43m CAPSTONE	1674.7	West
61606591	Null	1678.6	West
61616351	Null	1694.7	North-west
61612326	Null	1701.5	North-west
61605600	Null	1701.7	South-west
61606614	Null	1710.3	West
61606224	0m-6.1m Fine yellow sand. 6.1m-8.5m Fine white sand. 8.5m-9.1m Pebbles. 9.1m-15.2m Fine - med. White sand. 15.2m-16.8m Fine white clay; clay content over whole range. From 8.53 to 16.76m.	1710.6	North-west
61605487	Null	1721.7	North
61606085	0m-22.9m Sand.	1722.2	North
61605602	Null	1729.1	North-west
61616296	Null	1730.2	West
61606276	0m-26m Sand.	1735.9	North
61606626	Null	1748.8	North-west
61605840	0m-6.1m Sand. 6.1m-36.6m L/stone.	1754.7	West
61606617	Null	1757.2	North-west
61606586	Null	1757.6	West
61605792	0m-9.1m Sand. 9.1m-20.1m Limestone. 20.1m-23.8m Sand. 23.8m-32.9m Limestone.	1759.8	West
61605663	0m-9.1m Yellow sand. 9.1m-12.2m Capstone. 12.2m-15.2m Hard limestone. 15.2m-20.1m Capstone bands. 20.1m-24.7m Limestone hard. 24.7m-27.4m Limestone soft. 27.4m-32m Hard bands limestone coarse yellow sands.	1765.1	South-west
61616294	Null	1768.0	North-west
61606286	0m-12.8m Yellow sand. 12.8m-18.3m Soft limestone. 18.3m-21.9m Hard limestone. 21.9m-33.5m Broken limestone and yellow sand. 33.5m-34.7m Clay.	1773.0	South-west
61605819	0m-7.6m Yellow sand. 7.6m-11m Limestone. 11m-17.1m Capstone. 17.1m-20.1m Hard limestone. 20.1m-30.5m Limestone.	1774.6	South-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61605628	Null	1785.7	West
61616157	0m-15m Sand. 15m-22.5m Sand and limestone. 22.5m-26.3m Broken limestone.	1800.6	West
61605793	0m-1.8m Grey sand. 1.8m-29.3m Reddish sand and limestone with some (very hard band layers 80-90ft)	1800.6	West
61606587	Null	1802.6	West
61605712	0m-9.1m Sand. 9.1m-12.2m Limestone. 12.2m-13.7m Capstone. 13.7m-19.8m Broken limestone. 19.8m-27.1m Limestone. 27.1m-28.4m Clay.	1809.0	South-west
61606585	Null	1809.7	West
61606402	0m-0.5m Surface soil. 0.5m-3.5m Dirty brown sand. 3.5m-9m Yellow sand - clay nature. 9m-16m Limestone and sand. 16m-16.5m Brown fine sand. 16.5m-17.6m Limestone and sand 0.020 to 0.025. 17.6m-23m Fine sand and some broken limestone. 23m-27m Coarse brown sand. 27m-27.5m Limestone and very coarse and fine sand. 27.5m-28m Limestone rubble. 28m-29m Limestone and fine silty sand. 29m-30m Better sand 0.020 and limestone. 30m-31m Limestone bars and rubble 0.020. 31m-32m Sand 0.020 limestone bars and rubble. 32m-32.8m Coarse and fine sand limestone 0.025. 32.8m-34m Green coarse sand and fine sand overall 0.025 green clay bits. 34m-35.8m Green sand and fine sand 0.025. 35.8m-37m Coarse quartz sand and limestone 0.030. 37m-48.8m Open hole limestone.	1818.7	North-west
61606616	Null	1819.5	North-west
61606588	Null	1822.6	West
61606584	Null	1829.8	West
61606287	0m-7.6m Yellow sand. 7.6m-9.1m White coarse sand. 9.1m-13.1m White fine sand.	1831.7	North-west
61616321	Null	1831.8	West
61605594	Null	1840.1	North-west
61605785	0m-7.3m Yellow sand. 7.3m-7.9m Limestone and sand. 7.9m-14.6m Sand. 14.6m-16.8m Limestone mod to hard. 16.8m-22.9m Sand (soft limestone) 22.9m-25.6m Limestone hard.	1841.8	West
61622161	0m-12m Fine yellow sand. 12m-18m Yellow sand. 18m-30m Soft limestone. 30m-33m Coarse sand with silt. 33m-37m Coarse brown sand. 37m-40m Clay with sand. 40m-44.5m Limestone with coarse sand and shells. 44.5m-45.3m Coarse sand.	1852.6	North
61612315	Null	1864.3	South-west
61605734	0m-22.3m Yellow sand. 22.3m-25.3m Clay.	1864.7	South-west
61606277	0m-18.3m Sand and sandstone. 18.3m-24.4m White sand. 24.4m-27.4m Coarse grain sand, orange, ironstained 90-100ft clay orange brown.	1865.1	North
61605794	0m-10.1m Sand. 10.1m-27.4m Limestone.	1865.7	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61605287	Null	1873.3	West
61606581	Null	1875.7	West
Null	Null	1876.8	North-east
61605578	Null	1879.7	North
61615023	0m-2.4m Surface sand. 2.4m-7.6m White sand. 7.6m-17.9m Brown sand. 17.9m-18m Yellow clay 18m-23.8m Yellow clay and sand. 23.8m-36.6m Solid rock. 36.6m-135.6m Grey sandy shale. 135.6m-138.7m Hard bands 138.7m-163.4m Tough brown shale with hard bands. 163.4m-238.7m Tough brown shale. 238.7m-249.9m Coarse sandstone containing water. 249.9m-253.6m Firm fine sandstone. 253.6m-265.2m Coarse sandstone. 265.2m-307.8m Sandstone with very small bands dark shale. 307.8m-331.9m Sand. At 131ft6 in (314.401 m) boulder. 331.9m-410.1m Sandstone.	1882.2	North-east
61615024	0m-2.4m Surface sand and limestone. 2.4m-17.4m Brown sand. 17.4m-19.8m Rock. 19.8m-23.5m Yellow clay and limestone. 23.5m-25.6m Hard limestone. 25.6m-36.6m Limestone and shale. 36.6m-138.1m Grey sandy shale. 138.1m-138.7m Hard rock. 138.7m-301.8m Tough brown shale and hard bands. 301.8m-411.5m Compressed sand. 411.5m-459m Black sticky shale and sandstone. 459m-464.5m Sand. 464.5m-481.6m Grey shale. 481.6m-533.7m Black shale. 533.7m-540.4m Sandy shale. 540.4m-541.3m Sand, containing water. 541.3m-606.5m Sandstone and shale. 606.5m-625.5m Sand and sandstone containing water. 625.5m-674.8m Compressed sand. 674.8m-690.4m Soft sandstone. 690.4m-692.5m Compressed sand water bearing. 692.5m-733.5m Sandstone.	1882.2	North-east
61605735	0m-2.1m Brown sand. 2.1m-23.8m Yellow sand. 23.8m-29.3m Brown clay.	1897.1	South-west
61605843	0m-7.3m Yellow sand. 7.3m-14m L/stone. 14m-17.1m Hard l/stone. 17.1m-18.9m Soft l/stone. 18.9m-21.3m Capstone. 21.3m-23.8m L/stone hard. 23.8m-27.4m Soft l/stone. 27.4m-28.6m Capstone. 28.6m-35.4m Hard l/stone good sands.	1900.8	West
61606532	0m-14.3m Sand 14.3m-23.2m Limestone soft 23.2m-29.6m Limestone hard to medium hard 29.6m-32.3m Capstone 32.3m-34.8m Limestone hard and porous 34.8m-38.1m Sand coarse	1905.4	West
61616300	Null	1912.1	South-west
61605818	0m-7.3m Yellow sand. 7.3m-16.8m Hard limestone. 16.8m-20.7m Capstone. 20.7m-24.4m Hard limestone.	1912.2	South-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	24.4m-26.8m Cavern. 26.8m-34.3m Hard limestone bands.		
61606520	0m-2m Grey sand 2m-19m Yellow sand 19m-19.3m L/stone 19.3m-26.5m Yellow sand	1915.4	North
61605574	0m-19.8m Sand. 19.8m-20.7m Clay.	1917.6	North-east
61605573	0m-17.1m Sand. 17.1m-17.1m Rock (limestone)	1917.8	North-east
61612321	Null	1925.0	West
61606578	Null	1928.9	West
61616136	Null	1937.1	West
61606579	Null	1939.7	West
61605733	0m-20.1m Sand. 20.1m-20.7m L/stone. 20.7m-29.3m Sand.	1941.2	South-west
61612314	Null	1943.2	South-west
61606583	Null	1954.2	West
61606580	Null	1956.4	West
61606582	Null	1959.9	West
61616256	Null	1972.6	South-west
61605728	0m-8.5m Sand. 8.5m-13.1m L/stone. 13.1m-15.5m Capstone. 15.5m-32m L/stone. 32m-32.3m Not logged.	1974.7	South-west
61605844	0m-7.3m Sand. 7.3m-30.2m L/stone.	1975.3	West
61611640	0m-2m Sand - brown, fine to coarse, predominantly medium to coarse becoming finer with depth, moderately sorted, sub-rounded to rounded, frosted and stained quartz. 2m-5m Sand - creamy yellow, fine to coarse, predominantly medium-grained, moderately sorted sub-angular to rounded, frosted quartz. 5m-8m Sand - creamy yellow, slightly silty, fine-grained, well sorted, sub-angular to rounded, frosted quartz. 8m-9m Sand and limestone - sand; brown (coffee rock) and creamy yellow, fine to coarse, poorly sorted sub-angular to rounded, frosted and ironoxide stained. Limestone; creamy brown, broken fragments of calcareous cemented quartz sand. 9m-24m Limestone - creamy whitish-yellow, calcareous cemented quartz sand and minor broken shell fragments, abundant vugs and small solution channels, trace black minerals at 17m, 18m. 24m-28m Sand - orange brown containing nodules of limestone consisting of calcareous cemented quartz sand, becoming slightly clayey with depth. Fine to very coarse, poorly sorted, sub-angular to rounded, frosted quartz. 28m-30m Limestone - creamy yellow, sandy, clayey, hard calcareous cemented quartz sand. 30m-35m Sand - creamy yellow, fine to very coarse, predominantly very coarse, poorly sorted, becoming finer-grained with depth, angular to rounded, frosted quartz and nodules of calcareous cemented quartz sand (limestone) and trace clay. 35m-39m Sand - orange brown, trace clay, fine to very coarse to fine pebbles, very poorly sorted, sub-angular to rounded frosted quartz and trace limestone nodules. 39m-41m Limestone - creamy orange brown, clayey and sandy becoming more sandy with depth. 41m-44m Sand - pale creamy brown, fine to very coarse, fine pebbles, very poorly sorted and containing nodules of limestone (calcareous cemented quartz sand) - reported to be in layers. Unconformity. 44m-46m Clay - olive green, sandy, weathered kings park formation. 46m-48m Mudstone - dark grey, clayey and containing fine grained quartz sand.	1980.6	West
61605842	0m-6.4m Sand. 6.4m-32.9m L/stone.	1981.4	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
61611641	Null	1982.6	West
61611642	Null	1983.6	West
61606577	Null	1990.4	West
61616185	Null	1998.1	South-west

Note: The use of the symbol "-" or "Null" indicates that no records were found.
Source: Groundwater Bores & Lithology

2.2 Groundwater and other Bores

Map 2.2 (2000m Buffer)

Groundwater Restricted Use Zones

Name / Number	Address	Site History	Description	Distance (m)	Direction
Not identified	-	-	-	-	-

Source: Groundwater Protection Areas and Groundwater Restricted Use Zones

Groundwater Salinity

Class	Salinity Value	Source	Distance (m)	Direction
Non-Saline (<3000mg/L)	500 - 1000	Department of Water, Western Australia	0.0	Onsite

Source: Groundwater Salinity

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
BH1/MW1	Borehole	Nedlands (55511)	Caltex Petroleum Australia	17/02/2014	12.5	608.8	West
BH2/MW2	Borehole	Nedlands (55511)	Caltex Petroleum Australia	17/02/2014	12.5	610.9	West
BH4/MW4	Borehole	Nedlands (55511)	Caltex Petroleum Australia	18/02/2014	12.5	625.7	West
BH3/MW3	Borehole	Nedlands (55511)	Caltex Petroleum Australia	18/02/2014	12.5	627.7	West

Note: The use of the symbol "-" or "Null" indicates that no records were found.
Source: Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Section 3 Environmental Registers, Licences and Incidents

3.1 Contaminated Land Public Register

Map 3.1 (1000m Buffer)

Contaminated Sites

Register Type	Site Name	Address	Description	Details	Distance (m)	Direction
Remediated for restricted use	38869	LOT 5 ON DIAGRAM 9045	This site was historically used for military accommodation, and asbestos-containing materials (ACM) were used for building construction. The military buildings were demolished in the late 1960s, and campus accommodation buildings were constructed over the historical building footprints. ACM are present in soil beneath this site to a depth of approximately 0.5 metres below ground level. At the time of classification, impacted soils were covered by existing buildings, roads or paths, or by grass and/or mulched garden areas.	Null	183.9	North-west
Remediated for restricted use	38884	LOT 3732 ON PLAN 205170	This site was historically used for military accommodation, and asbestos-containing materials (ACM) were used for building construction. The military buildings were demolished in the late 1960s, and campus accommodation buildings were constructed over the historical building footprints. ACM are present in soil beneath this site to a depth of approximately 0.5 metres below ground level. At the time of classification, impacted soils were	Null	250.9	North-west

Register Type	Site Name	Address	Description	Details	Distance (m)	Direction
			covered by existing buildings, roads or paths, or by grass and/or mulched garden areas.			
Remediated for restricted use	72566	LOT 2 ON DIAGRAM 27540	Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the adjacent former service station to the north and extends to the south beneath this site.	Null	590.9	West
Remediated for restricted use	72565	LOT 66 ON DIAGRAM 27540	Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the adjacent former service station to the north and extends to the south beneath this site.	Null	594.0	West
Remediated for restricted use	72564	LOT 3 ON DIAGRAM 27540	Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the adjacent former service station to the north and extends to the south beneath this site.	Null	595.2	West
Remediated for restricted use	72563	LOT 888 ON PLAN 76389	Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the site as a plume which extends off-site to the south. Hydrocarbon-impacted soil remains in-situ beneath the location of former underground fuel storage tanks in the southern portion of the site at a depth of approximately 10 metres below ground surface.	Null	599.1	West

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.
Source: Contaminated Land Public Register

Table 3.1.1 Contaminated Land Public Register		
State	**Regulatory Body**	**Information included in this search (by state)**
ACT	EPA (Environment Protection Authority)	Contaminated Land Search Register of Contaminated Sites* (on request)
NSW	EPA (Environment Protection Authority)	Sites Notified as Contaminated Records of Notices
NT	EPA (Environment Protection Authority)	Contaminated Land Audit Pollution Abatement Notice
QLD	DES (Department of Environment and Science)	Contaminated Land Search (Environmental Management and Contaminated Land Registers)* (per lot)
SA	EPA (Environment Protection Authority)	Site Contamination Index Assessment Areas
TAS	EPA (Environment Protection Authority)	Regulated Sites and Premises Lutana and Parts of Hobarts Eastern Shore
VIC	EPA (Environment Protection Authority)	Priority Sites Register Pollution Abatement Notice
WA	DWER (Department of Water and Environmental Regulation)	Contaminated Sites Database

This search contains information retrieved from the relevant state authority, agency/department, or government authority that notifies and identifies contaminated land. The list only contains contaminated sites that the regulatory body is aware of or that have been notified by owners or occupiers as contaminated land. The sites are recorded on the register at various stages of the assessment and/or remediation process. If a site is not on the list, it does not necessarily mean the site is not contaminated.

3.2 Licences, Approvals & Assessments

Licences

Map 3.2 (1000m Buffer)

Licence N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direct
Not identified	-	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.
**Results that appear as "not mapped" refer to licences that are applied to larger areas and/or without specific definition, such as waterways, forests etc. These are still identified in the search results but will not be shown within the map.*
Source: Licences, Approvals & Assessments

Audits, PRSA

N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direction
Not identified	-	-	-	-	-	-	-

**If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.*
Source: Licences, Approvals & Assessments

Clean Up, Penalty Notices and Orders

N°	Type	Licence holder	Location Name	Premise Address	Details	Dist. (m)*	Direction
Not identified	-	-	-	-	-	-	-

**If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.*
Source: Licences, Approvals & Assessments

Table 3.2.1 Licences, Approvals & Assessments		
State	**Regulatory Body**	**Information included in this search (by state)**
ACT	EPA (Environment Protection Authority)	Environment Protection Authorisation Search Environment Protection Agreement Search
NSW	EPA (Environment Protection Authority)	POEO Public Register (Environment Protection licences, Applications, Notices, Audits or Pollution studies and Reduction Programs)
NT	EPA (Environment Protection Authority)	Environment Protection Licences and Approvals
QLD	DES (Department of Environment and Science)	Environmental Authorities
SA	EPA (Environment Protection Authority)	Licences or Authorisations (Licences, Exemptions and Works Approvals) Environment Protection Orders (EPO) and Clean Up Orders (CUO)
TAS	EPA (Environment Protection Authority)	Regulated Sites and Premises
VIC	EPA (Environment Protection Authority)	Permissions Register (Operating Licence, Permit and Registration) Audit Reports
WA	DWER (Department of Water and Environmental Regulation)	Licences and Works Approvals

3.3a Sites Regulated by other Jurisdictional Body

Contaminated Legacy Areas

Site Name	Description	Distance (m)	Direction
Not identified	-	-	-

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.
Source: Contaminated Legacy Areas

Defence, Military Sites and UXO Areas

Site name	Type*	Details	Distance (m)	Direction
Not identified	-	-	-	-

**RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas) .*
Source: Defence, Military Sites, and UXO Areas

Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

Source: Former Gasworks Sites

PFAS Sites

Site name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-

Source: PFAS Sites

3.3b Other Potential Hazard Sources

Map 3.3b (500m Buffer)

Mines and Quarries (current and historical)

Site name	Description	Status	Distance (m)	Direction
Not identified	-	-	-	-

Source: Mines and Quarries

Landfills (current and historical)

Site name	Description	Status	Distance (m)	Direction
Not identified	-	-	-	-

National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Crawley Campus	35 Stirling Highway, Crawley, WA, 6009	Higher Education	2020/2021	0.0	Onsite

Source: Contaminated Legacy Areas

Section 4 Potentially Contaminated Areas

4.1 Potentially Contaminating Activities

Map 4.1 (200m Buffer)

Industries, businesses and activities that may cause contamination

Map ID	Site name	Category	Description	Address	Status*	Dist. (m)	Direction
1	Perth Dinghy Sailing Club	Depots and Storage Yards	Sailing Club	13 Hackett Dr., Crawley WA 6009	Current	43.0	North

**Status: Information is current as when this report was created.*
The operational status of the business is determined using the available data sources and does not indicate real-time conditions at the site.
Current: business is operating on the day this report was issued.
Former: business that have been closed or discontinued within 2 years from the date of this report.
Source: Potentially Contaminated Areas, Activities (PCA)

Categories included in this search. (Notifiable activities)		
Abattoirs	Explosives and Dangerous Goods	Paint Industries
Abrasive Blasting	Extractive Industries	Petrol Stations
Agriculture / Horticulture	Fire and Rescue	Pharmaceuticals
Airports	Food Manufacturing	Port and Marina Operations
Asbestos	Foundry, Smelting or Refining	Power Plants
Asphalt or Bitumen	Fuel Terminals & Depots	Printing and Photography
Batteries	Glass, Ceramics and Plastic	Rail Industry and Associated Activities
Breweries / Distilleries	Gun, Pistol or Rifle Ranges	Rubber and Tyre
Cement, Concrete or Lime	Hospitals and Research Facilities	Storage Tanks
Cemeteries	Landfill Sites	Substations and Switching Stations
Chemicals	Livestock Dips	Textiles and Tannery
Coal Yards	Mechanical and Automotive	Timber, Pulp and Paper Works
Depots and Storage Yards	Metal Fabrication and Treatments	Waste and Recycling Facilities
Dry Cleaners	Oil and Gas	Wastewater Treatment Facilities
Electrical or Electrical Components	Other Infrastructure Facilities	-

Industries, businesses, and activities identified as having an increased likelihood of causing contamination.

The industries and business activities listed above have been identified as having an increased likelihood of causing contamination and have been identified through published state and national guidelines and regulations. These industries are noted due to their potential to store or use substances that could cause contamination to the surrounding environment if not managed appropriately. The identification of these activities does not imply the presence of contamination at the site.

The records identified are based on the reported business activity and have not been assessed based on any current or previous site inspection. Please note that records not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

4.2 Historical Business Directories

(not mapped)

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2005	Photographers--General	Phillips & Father, Crawley	Guild Village Commercial Centre, The University Of Wa,CRAWLEY,WA,6009	Place		West
2010	Photographer - General	Phillips & Father	Guild Village Commercial Centre The University Of Wa CRAWLEY 6009 WA	Place		West
2010	Chemists - Retail Pharmacies	Campus Pharmacy	Guild Commercial Centre Uwa NEDLANDS 6009 WA	Place		West
2015	Photographer - General	Phillips & Father	Guild Village Commercial Centre The University Of WA Crawley WA 6009	Place		West

Land Insight uses a number of address geocoding techniques and has characterised them based on completeness (match rates) and positional accuracy. When a historical street address is incomplete or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. An explanation of the positional accuracy records is defined in the table below.

Source: Historical Business Directories

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	**Georeferenced**	**Description**
Address	Located to the address level	*When street address and names fully match.*
Street	Located to the street centroid	*When street names match but no exact address was found. Location is approximate.*
Place	Located to the structure, building or complex	*When building, residential complex or structure name match but no exact address was found. Location is approximate.*
Suburb	Located to the suburb area	*When suburb name match but no exact address was found. Location is approximate.*

The data used in this section was extracted from range of historical commercial trade directories and business listings. The business addresses were geocoded using historical information and the accuracy of the data may vary due to changes to the physical address at a given locality over time or the quality of the original records. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. On this basis, reliance on the historic listing data should be considered when assessing the risk of contamination from an activity at the site. The presence of a business listing does not definitively confirm the actual activity that has occurred at the site. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at info@landinsight.co.

Historical business directory listings have been filtered to match activities and industries identified as PCAs in Section 4.1. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

Section 5 Natural Hazards

5.1 Fire Hazard

Map 5.1 (500m Buffer)

Bushfire Prone Areas

Category	Type	Details	Distance (m)	Direction
Bushfire Prone Area	Bushfire Prone Area 1	Bush Fire Prone Areas (BPAs) are areas that are likely to be subject to bushfire attack. A BPA is identified by the presence of, and proximity to, bush fire prone vegetation (BPV), and includes the BPV and a 100 metre buffer zone immediately surrounding it. Area 1 identifies areas with a low likelihood of sustaining a landscape scale bushfire due to the intensity of development and absence of large expanses of contiguous vegetation.	250.7	North

Source: Fire Hazards

Bushfire History

Type	Season	Details	Distance (m)	Direction
Not identified	-	-	-	-

Source: Fire Hazards

5.2 Flood Hazard

Flood Planning Area

Map 5.2 (500m Buffer)

Type	Name	Details	Distance (m)	Direction
Flood Prone Area - 1 in 100 (1%) AEP floodplain	1 in 100 AEP Floodplain Development Control Area - Flood Plain Management DWER	Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.	0.0	Onsite
Flood Prone Area - 1 in 10 (10%) AEP floodplain	Perth (Fremantle to Walyunga & Canning Bridge to Brookton Highway) - Flood Plain Management DWER	Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.	0.0	Onsite
Floodplain - Designated flood event floodplain	Perth (Fremantle to Walyunga & Canning Bridge to Brookton Highway) - Flood Plain Management DWER	Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.	0.0	Onsite

Source: Flood Hazard

Other Flood Studies

Type	Name	Details	Distance (m)	Direction
<3% of the map unit has a moderate to high hazard	Soil landscape land quality - Flood Risk (DPIRD-007)	Flood hazard is a combination of frequency of flooding, the flood depth, and the speed or velocity at which the water can travel.	0.0	Onsite

Source: Flood Hazard

Flood History

Type	Season	Details	Distance (m)	Direction
Not identified	-	-	-	-

The list provided is not comprehensive and does not consider all flood history. It only includes the information that is currently available.
Source: Flood Hazard

5.3 Erosion Hazard

Erosion Hazard

Map 5.3 (500m Buffer)

Category	Type	Details	Distance (m)	Direction
Landslip Erosion Risk	<3% of map unit has a moderate to high hazard	Negligible	0.0	Onsite
Water Erosion Risk	<3% of map unit has a high to extreme water erosion risk	Negligible	0.0	Onsite
Wind Erosion Risk	30-50% of map unit has a high to extreme wind erosion risk	Moderate	0.0	Onsite
	>70% of map unit has a high to extreme wind erosion risk	Very High	82.9	North-west

Source: Erosion Hazard

Land Insight

The Commons
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www.landinsight.co

Product Guide

Environmental Information Report

23 Apr 2025

Data Sources

NLUA - The Land Insight National Land Use Atlas (NLUA)

Land Insights' NLUA is a unique, proprietary database, meticulously curated from over a decade's worth of research and hundreds of thousands of diverse information sources. NLUA provides a comprehensive overview of land usage and potential hazards, drawing from a wide array of reliable sources. These include verified Council Records, Historic Zoning Maps, Topographic and Parish Maps, and technically published reports.

NLUA integrates thoroughly researched information extracted from published reports, publications, and technical studies. It also incorporates Land Insight's proprietary machine learning process, which identifies land anomalies, patterns, and changes through aerial imagery interpretations.

Leveraging advanced technologies, NLUA verifies the provenance, authenticity, and precision of its data. This database undergoes rigorous validation procedures carried out by scientists, quality assurance teams, and technical experts. This ensures its accuracy and reliability before publication. For more information on methodologies and further inquiries, please contact the Land Insight teams at support@landinsight.co.

Section 1 - Property Setting

Sensitive Receptors

National – Google. Nearmap. @ Land Insight National Land Use Atlas (NLUA). Points of Interest - © OpenStreetMap. Australian Business Datalist, Australian Schools Database - @ Australian Business Datalist ABDL (with permission). Cadastre. National - The digital cadastral boundaries and their legal identifiers have been derived from the relevant bodies from each Australian State and Territory jurisdiction combined by Land Insight & Resources.

Topographic data and Contours. National - The digital contours data and elevation information have been derived from the relevant bodies from each Australian State and Territory jurisdiction combined by Land Insight & Resources. National - Catchments, Streams, Aquifers, Storages, Wetlands and Man-made Structures that make up the hydrological system - © Geoscience Australia. Parks and National and State Forest Data © Department of Agriculture, Fisheries and Forestry.

Planning Controls and Overlays

Zoning, Planning Overlays and Other Planning Information

The digital planning information have been derived from the relevant bodies from each Australian State and Territory jurisdiction combined by Land Insight & Resources.

Mine subsidence districts - © DFSI Subsidence Advisory NSW. ACT - ACT Territory Plan and Land Use Zones and ovleryas © ACT Government Environment, Planning and Sustainable Development Directorate – Environment. NSW – NSW Environmental Planning Instruments, Land Use Zoning, Local Environmental Plan - © State Government of NSW and NSW Department of Planning, Housing, and Infrastructure. NT - NT Planning Scheme, Land Use Zones © NT Government Department of Infrastructure, Planning and Logistics. QLD - Land use mapping series, Land Use in QLD @ QLD Environment, Science, and Innovation. QLD zoning information, various LGA Councils. SA - Land Development Zones, Planning and Design Code Zones and Overlays – © SA Government Department for Trade and Investment. TAS - Tasmania Planning Scheme, Zoning and Overlays, theLIST ©State of Tasmania. @ Department of Natural Resources and Environment Tasmania. VIC - Tasmania Planning Scheme, Zoning and Overlays, theLIST ©State of Tasmania. @ Department of Natural Resources and Environment Tasmania. WA - Local Planning Scheme and Region Scheme, Zones, and Reserves, © WA Government Department of Planning, Lands and Heritage.

Heritage

Commonwealth Heritage List, National Heritage List and World Heritage Area

AUS - World, Commonwealth, and National Heritage Areas – World Heritage List, UNESCO. Australia's World Heritage List, © Australian Government Department of Sustainability, Environment, Water, Population and Communities. @ Department of Climate Change, Energy, the Environment and Water.

State and Local Heritage Registers

ACT - ACT Heritage Sites © ACT Government Environment, Planning and Sustainable Development Directorate – Environment. NSW - NSW EPI Heritage, NSW Heritage State Curtilage @ NSW Department of Premier and Cabinet, Heritage Council of NSW. NT - Heritage Register in NT, NT Town Planning Zones Heritage - © NT Government of Australia through Department of Tourism, Sport, and Culture. QLD - Queensland Heritage register boundaries, Queensland Local Heritage. © QLD Government Department of Environment and Science. Data from various local councils compiled by Land Insight Research Team (LIRT). SA - SA Heritage Places, SA Conservation State Hertiage Areas, SA Conservation State Heritage Areas, Aboriginal Heritage in SA @Governemtn of South Australia © SA Government Department for Trade and Investment, Department for Environment and Water. TAS - Heritage Tasmania Features theLIST ©State of Tasmania. VIC - VIC Heritage Inventory, VIC Sensitivity Public, VIC Heritage Register © VIC Government Department of Energy, Environment and Climate Action; Department of Premier and Cabinet. WA - WA Heritage Areas, WA Heritage Council Local Heritage Survey, WA Heritage Council State Heritage Survey, WA Aboriginal Heritage Places © WA Government Department of Planning, Lands and Heritage.

Soil and Land Use Information

Soil landscape

Soil Mapping, Information & Landscape - Digital Atlas of Australian Soils, Bureau of Rural Sciences (BRS); Commonwealth Scientific and Industrial Research Organisation (CSIRO) Australian Soil Resource Information System (ASRIS). CSIRO (2024): Australian Soil Resource Information System Website. v1. CSIRO. Data Collection. https://doi.org/10.25919/pdct-9a97

Australian Soil Resource Information System - Australian Soil Classification @ Geoscience Australia, ASRIS Australian Soil Classification @ CSIRO Soil and Landscape Information of Australia @ CSIRO. Australian national map layers, Atlas of Australian Soils - @ ABARES Australian Bureau of Agricultural and Resource Economics and Sciences.

ACT Soil Landscapes, Soil Landscapes of the Canberra 1:100,000 © Australian Capital Territory Government, @ State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water. NSW Great Soil Group (GSG) Soil Type, Australian Soil Classification (ASC) soil type, Strategic Regional Land Use and Soil Profiles, 1:100 000 Soil Landscape Series, 1:250 000 Soil Landscape Series © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water. NT Northern Territory Land Systems compilation 1:1 000 000, 1:250 000 @ Environment, Parks, and Water Security. QLD Land systems series, Soil Series and Soil and land resource information © The State of Queensland. SA Land Systems & Soil Types, Soils of South Australia @ Department for Environment and Water. TAS Soil Maps of Tasmania 1:100 000 various regions. Dominant Soil Order TAS @ Department of Natural Resources and Environment Tasmania. VIC Victorian Soil type mapping, VIC Land units (various regions), Victorian Land Use Information System, Land Systems of Victoria at 1:100 000 and 1:250 000 @ Department of Energy, Environment and Climate Action. WA Soil Landscape Mapping - Best Available, Soil Landscape Mapping – Systems, WA Soil Group @ Department of Primary Industries and Regional Development.

Soil salinity

ACT - Hydrogeological Landscapes, Soil Landscapes of the Australian Capital Territory @ actmapi ACT gov. NSW – Hydrogeological landscapes mapping, Sydney Metropolitan Western Study Area Hydrogeological Landscapes; New South Wales – Dryland Salinity Assessment 2000 – Assessment of Dryland salinity extent 2020 - © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water; Australian Bureau of Agricultural and Resource Economics and Sciences. NT - Land Suitability Guidelines @ Department of Infrastructure, Planning and Logistics NT. QLD - Salinity in Queensland @ Environment, land, and water QLD. SA - Land salinity, Dryland salinity, Watertable and non-watertable @ Department for Environment and water SA. TAS - Vulnerable Soils: Salinity Hazard @ thelist Land Tasmania. VIC - Victorian Dryland Salinity Assessment 2000 - Australian Bureau of Agricultural and Resource Economics and Sciences. WA - Dryland salinity in Western Australia - © Department of Primary Industries and Regional Development's Agriculture and Food.

Acid Sulfate Soils

National, State and Local Acid Sulfate Soils Registers

AUS - Acid sulfate Soils - Atlas of Australian Acid Sulphate Soils @ CSIRO (2024): Australian Soil Resource Information System Website. v1. CSIRO. ACT - Environmental Planning Instrument (Acid Sulfate Soils) - © State Government of NSW and NSW Department of Planning, Housing, and Infrastructure. NSW - Environmental Planning Instrument (Acid Sulfate Soils); Land and Soil Capability Mapping for NSW - © State Government of NSW and NSW Department of Planning, Housing, and Infrastructure; © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water. NT – Acid Sulfate Soils of the Darwin Region; Northern Territory Land Systems (compilation of north_250 and south_1M) - © Northern Territory Government of Australia Environment, Parks, and Water Security. QLD – Acid sulfate soils series - © The State of Queensland Environment and Science. SA – Acid Sulfate Soil Potential - @ Government of South Australia Department for Environment and Water. TAS – Marine Acid Sulfate Soils; Inland Acid Sulfate Soils; Coastal Acid Sulfate Soils; Acid Sulfate Soils - Resource Management and Conservation. VIC - Coastal Acid Sulphate Soils - Department of Jobs, Skills, Industry and Regions. WA - Acid Sulfate Soil Risk Map 100K; Soil landscape land quality - Subsurface Acidification Risk - @ Department of Water and Environmental Regulation; Department of Primary Industries and Regional Development.

Geology and Topography

Naturally Occurring Asbestos NOA

Naturally Occurring Asbestos in NSW © State of New South Wales and Department of Planning and Environment; WA Management of Asbestos In Mining Operations Department of Industry and Resources; SA Carbonate-hosted asbestos occurrences in South Australia: review of geology and implications for mesothelioma [Hendrickx, M.]; Mapping of naturally occurring asbestos in NSW [NSW Trade & Investment, Division of Resources & Energy]

Geology

ACT - New South Wales Seamless Geology dataset (latest version 2.3), various geology data sources 1:25K to 1:100K - © Department of Regional NSW. NSW - New South Wales Seamless Geology dataset (latest version 2.3) - © Department of Regional NSW. NT - Geological digital data 1:100 000 sheet - © Commonwealth of Australia (Geoscience Australia). QLD - Queensland geology detailed surface geology 1:100K and Queensland geology state surface geology 1:2M - © State of Queensland (Department of Resources). SA - 1:100K Geology (surface geology) - © SA Government Department of Energy and Mining, Customer Services. TAS - 1:25K and 1:250K Geology Data and Maps - © TAS Government Department of Infrastructure, Energy, and Resources (Mineral Resources Tasmania). VIC – Geological units represented as two dimensional polygons (1:50,000), and Geological units represented as two dimensional polygons (1:250,000) - © VIC Government Department of Jobs, Skills, Industry and Regions. WA - 1:50K Geological series map, 1:100K Geological series map, and 1:500K State interpreted bedrock geology - © WA Government Department of Mines, Industry Regulation and Safety.

Section 2 - Hydrogeology

GDE & Hydrogeology Constraints

Groundwater Aquifers

Groundwater Aquifers - The National Hydrogeological Inventory, Commonwealth of Australia (Geoscience Australia). Australian Hydrological Geospatial Fabric @ Department of Climate Change, Energy, the Environment and Water, National Aquifer Network © Commonwealth of Australia (Bureau of Meteorology)

Groundwater Protection Areas and Groundwater Restricted Use Zones

Groundwater Protection Areas – © State of New South Wales and Department of Planning and Environment, NT Environment, Parks and Water Security, QLD Department of Resources, SA Environment Protection Authority (EPA), TAS TasWater, VIC Department of Environment, Land, Water & Planning; WA Department of Water and Environmental Regulation. Groundwater Licences - The Perth Groundwater Atlas and Department of Water (DoW) database © State of Western Australia. NSW - Groundwater Restricted Use Zones: EPI Groundwater Vulnerability, Botany Groundwater Management Zone, Williamtown Management Area, UPSS Environmentally Sensitive Zone, EPI Drinking Water Catchments – EPA NSW; NSW Department of Planning, Industry and Environment. NSW Temporary Water Restrictions Order Botany Sands groundwater - @ The NSW Department of Industry—Lands & Water. NT - Groundwater Restricted Use Zones: NT Water Protection Areas - Department of Environment, Parks, and Water Security. QLD - Groundwater Restricted Use Zones: Water Licences, Groundwater Management Areas, Surface Water Management Areas, Water Plan Catchments - Department of Resources. SA - Groundwater Restricted Use Zones: EPA Groundwater Prohibition Area – EPA SA. TAS - Groundwater Restricted Use Zones: Drinking Catchments, Water Management Plan Areas, Water Districts. VIC - Groundwater Restricted Use Zones: GMA, Groundwater Resources, Water Supply Protection Areas, Water Asset Database, Groundwater Catchments – © EPA Victoria. WA -Groundwater Restricted Use Zones: Gnangara Groundwater Protection, Jandakot Groundwater Protection, Groundwater Areas, PDWSA, Water Licences – Department of Water and Environmental Regulation.

Wetlands

Ramsar Wetlands of Australia - Directory of Important Wetlands in Australia (DIWA) – DCCEEW Department of Climate Change, Energy, the Environment and Water. ACT - Wetland Mapping - © State of New South Wales and Department of Planning and Environment. Important Wetlands - © Australian Capital Territory. NSW - Wetlands, Ramsar Sites, and various sources – © State of New South Wales and Department of Planning and Environment. NSW Environmental Planning Instruments (Wetlands, Coastal Wetlands), © State Government of NSW and NSW Department of Planning, Housing, and Infrastructure NT - Wetlands and Ramsar Sites - @ Department of Environment, Parks, and Water Security. QLD - Local Significant Wetlands and Ramsar Sites - @ Department of Environment and Science. SA - Ramsar Wetlands - @ Department for Environment and Water. TAS - Ramsar Wetlands - @ Land Tasmania. VIC - Victoria Wetlands and Ramsar Sites, @ Department of Energy, Environment and Climate Action. WA - Geomorphic Wetlands (various), Consanguineous Wetlands Suites, Ramsar Sites, @ Department of Biodiversity, Conservation and Attractions.

Groundwater Dependent Ecosystems

Groundwater Dependent Ecosystems (GDE) – Terrestrial (subsurface) and Aquatic (surface) - © Commonwealth of Australia (Bureau of Meteorology).

Groundwater Bores & Lithology details

Groundwater bores and lithology - National Groundwater Information System (NGIS) Dataset. - © Australian Government Bureau of Meteorology. © Water NSW. Groundwater Bores – © Australian Capital Territory. VIC Groundwater Sites, Domestic and stock groundwater bores @ DELWP. WA GW Bores, @ Department of Agriculture Resource Management. SA WaterConnect @ State of South Australia.

Groundwater Salinity

AUS - Groundwater Salinity © Commonwealth of Australia, Bureau of Meteorology. Groundwater Salinity - ACT - Canberra Hydrogeological Landscape, Hydrogeological Landscape Reports, Salinity, ACTmapi @ ACT gov. NSW – Salinity locations and mapping, Hydrogeological landscapes, @ NSW Environment and Heritage. NT - Dryland Salinity Hazard of the Northern Territory, @ Environment, Parks, and Water Security NT. QLD - Salinity in Queensland, @ QLD gov. SA - Annual ground water salinity sampling, @ Landscape South Australia. TAS - Groundwater Salinity - © Department of Natural Resources and Environment Tasmania. VIC - Groundwater Salinity - © State Government of Victoria. Groundwater Salinity - Department of Water and Environmental Regulation. WA – Salinity & Dryland salinity in Western Australia, @ Department of Agriculture and Food WA.

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes) – NSW Planning & Environment (Resources & Energy); Department of Energy, Environment and Climate Action. Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes) – © The State of Queensland, © Commonwealth of Australia (Geoscience Australia), Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes, Drillholes within South Australia, Mineral Drillholes) - @ SA Government Department for Environment and Water; Department for Energy and Mining. Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes) - Department of Water and Environmental Regulation, © Government of Western Australia Department of Mines, Industry Regulation and Safety. Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes), various sources @ Land Insight National Land Use Atlas (NLUA).

Section 3 - Environmental Registers, Licences and Incidents

Contaminated Land Public Register

ACT - Register of Contaminated Sites, Contaminated Land Search (per request) - © Australian Capital Territory, Environment Protection Authority. NSW - Sites Notified as Contaminated, Records of Notices - © State of NSW and the NSW Environment Protection Authority. NT - Contaminated Land Audit, Pollution Abatement Notice - Northern Territory Environment Protection Authority. QLD - Contaminated Land Search (Environmental Management and Contaminated Land Registers – per lot) - © The State of Queensland (Department of Environment, Science, and Innovation). SA - Site Contamination Index, Assessment Areas - © Government of South Australia Environment Protection Authority. TAS - Regulated Sites and Premises, Lutana, and Parts of Hobarts Eastern Shore - © The Crown of Tasmania, Environment Protection Authority. VIC - Priority Sites Register, Pollution Abatement Notice - © EPA Victoria. WA - Contaminated Sites Database - © Government of Western Australia, Department of Water and Environmental Regulation.

Licences, Approvals, & Assessments

ACT - Environment Protection Authorisation Search, Environment Protection Agreement Search - © Australian Capital Territory, Environment Protection Authority. NSW - POEO Public Register - © 2023 State of NSW and the NSW Environment Protection Authority. NT - Environment Protection Licences - © Northern Territory Environment Protection Authority. QLD - Environmental Authorities - © The State of Queensland (Department of Environment, Science, and Innovation). SA - Licences or Authorisations, Environment Protection Orders (EPO), Clean-Up Orders (CUO), Assessment Areas - © Government of South Australia Environment Protection Authority. TAS - Regulated Premises - © The Crown of Tasmania, Environment Protection Authority. VIC - Permissions Register, Audit Reports - © EPA Victoria. WA - Licences and Works Approvals - © Government of Western Australia, Department of Water and Environmental Regulation.

Sites Regulated by Other Jurisdictional Body

Contaminated Legacy Areas

Contaminated Legacy Areas mapped by Land Insight Research team @ Land Insight National Land Use Atlas (NLUA). James Hardie Asbestos Waste Contamination Legacy @ The Australian Asbestos Network, Loose-fill Asbestos register @NSW Department of Climate Change & Water. Loose Fill Asbestos @ ACT Government. Asbestos Register @NT Government. Asbestos Register @ QLD Government. Asbestos Safework @ Government of South Australia. Asbestos Safety WorkSafe @Tasmania Government. Asbestos in Victoria @State Government of Victoria. Asbestos – contaminated sites @ Government of Western Australia Department of Health. National Pollutant Inventory - © Commonwealth of Australia, Department of Agriculture, Water, and the Environment. Parramatta River Catchment Land Use Areas - Compiled by Land Insight derived from Parramatta River Estuary Processes Study (2010); and @ Land Insight National Land Use Atlas (NLUA).

Mines and Quarries (current locations, derelict and abandoned mines and quarries, mine shaft)

Current and Historical location of mines and quarries, derelict mine locations mapped by Land Insight Research team @ Land Insight National Land Use Atlas (NLUA). Australia's abandoned mines: rehabilitated @Australian Geographic. List of mines, List of open-pit mines @ Wikipedia. Goldfields places & Maps- National Library of Australia and State Libraries. A Geospatial Database for Effective Mine Rehabilitation in Australia – Monash University, various authors. Inventory of abandoned mines in Australia @ Australian Government AusIndustry. National Heritage Places - Coal Mines Historic Site @Department of Climate Change, Energy, the Environment and Water. Legacy Mines Program © State of New South Wales through Regional NSW. Map of NSW Mines @NSW Minerals Council. Legacy Mines @ Northern Territory Government. Abandoned mine remediation projects - @ The State of Queensland Government. Map of abandoned mines in Queensland. Queensland's quarry operations @ QLD Government Department of Resources. South Australian Mining History @ Mining Heritage, Former Mines, SARIG @ Government of South Australia @ EPA SA. Mineral Resources Tasmania @ Department of State Growth Mineral Resources Tasmania, Abandoned Mines Rehabilitation in Tasmania @ Department of Infrastructure, Energy and Resources. Tasmania Goldfields dataset. Mineral Occurrences Data @ Tasmania Government. Rehabilitating Mines @ Copyright Victorian Auditor-General's Office, @ Mining Legacies. Historical Mining Activities @ VIC Department of Jobs, Skills, Industry and Regions. Heritage Victoria. Mineral Assessment @ VIC Department of Natural Resources and Environment. Abandoned Mines, Inactive And Abandoned Mine Land Reports - @ WA Department of Mines, Industry Regulation and Safety. Abandoned Mines Program @ WA Department of Energy, Mines, Industry Regulation and Safety. Mines and Mineral Deposits (MINEDEX) - @ WA Department of Energy, Mines, Industry Regulation and Safety

Defence, Military Sites, and UXO Areas

Current and Historical Defence and Military sites mapped by Land Insight Research team @ Land Insight National Land Use Atlas (NLUA). Department of Defence 3 Year Regional Contamination Investigation Program (RCIP) © Commonwealth of Australia, Department of Defence. Defence Sites © Australian Government - Various sources and Department of Defence © Commonwealth of Australia. @ Land Insight National Land Use Atlas (NLUA). National Unexploded Ordnance Program (UXO) @ Australian Government Defence.

Former Gasworks Sites

AUS – Gasworks sites (Various), @ National Trust of Australia, @ National Library of Australia, @ Pocket Oz Sydney Guide, @ wikipedia. Former gasworks site locations mapped by Land Insight Research team @ Land Insight National Land Use Atlas (NLUA). Archaeological database and records © New England Archaeology. Images, Wikipedia, @Flickr images. The historical marker database. ACT – Gaswork sites @ ACT gov. NSW – Former gasworks sites @ EPA NSW, @ NSW Department of Environment and Conservation, Heritage NSW. NT - Gaswork sites @ EPA NT. QLD - Gaswork sites @ DES QLD. SA - Gaswork sites @ EPA SA, @ SA Heritage Places Database Search (maps SA). TAS - Gaswork sites @ EPA TAS, @ Ligthscape Tasmania. VIC – Gasworks sites,

@EPA VIC, @ Development Victoria. WA - Gasworks sites, @EPA WA, @ Department of Water and Environmental Regulation WA.

PFAS sites

AUS – National PFAS Investigation Program – State-wide PFAS Investigation Program @Australian Government, Department of Infrastructure, Transport, Regional Development, Communications and The Arts. PFAS research @ Land Insight National Land Use Atlas (NLUA).

PFAS Investigation and Management Program - PFAS contamination at Department of Defence sites, @ Defence Government. @ Australian Government Defence. Metropolitan Fire Brigade stations. Potential historical use of PFAS @ Australian Government.

PFAS Taskforce. Airservices Australia National & PFAS Management Program, Airservices Australia.

ACT - Potential PFAS contaminated sites in the ACT - © ACT Environment Protection Authority. NSW - The NSW Government PFAS Investigation Program, © State of NSW and the NSW Environment Protection Authority. NT – PFAS National Environmental Management Plan (NEMP) @ NT EPA. QLD - PFAS site investigations, PFAS in QLD, @ QLD government. SA - Per- and poly-fluoroalkyl substances (PFAS), @SA EPA. TAS - PFAS Contamination, @ TAS EPA. VIC - PFAS management sites, PFAS contamination at Department of Defence sites @ VIC EPA. WA - PFAS Investigations in Western Australia, @ WA government, @ WA DWER.

Section 4 - Potentially Contaminated Areas

Potentially Contaminated Areas, Activities (PCA) – Notifiable Activities Locations and Description

The research database includes Potentially Contaminating Activities or businesses, industries, and activities that have been identified as having an increased likelihood of causing contamination. Many of these are considered notifiable activities, or activities that require regulation to operate. This database is meticulously curated from a variety of information sources and undergoes rigorous validation procedures carried out by our team of scientists, quality assurance professionals, and technical experts, ensuring its accuracy and reliability. The PCA database systematically identifies and classifies site locations into fifty differing categories, including:

Abattoirs, Abrasive Blasting, Agriculture/Horticulture, Airports, Asbestos, Asphalt or Bitumen, Batteries, Breweries/Distilleries, Cement, Concrete or Lime, Cemeteries, Chemicals, Coal Yards, Depots and Storage Yards, Dry Cleaners, Electrical or Electrical Components, Explosives and Dangerous Goods, Extractive Industries, Fire and Rescue, Food Manufacturing, Foundry, Smelting or Refining, Fuel Terminals & Depots, Glass, Ceramics and Plastic, Gun, Pistol or Rifle Ranges, Hospitals and Research Facilities, Landfill Sites, Livestock Dips, Mechanical and Automotive, Metal Fabrication and Treatments, Oil and Gas, Other Infrastructure Facilities, Paint Industries, Petrol Stations, Pharmaceuticals, Port and Marina Operations, Power Plants, Printing and Photography, Rail Industry and Associated Activities, Rubber and Tyre, Storage Tanks, Substations and Switching Stations, Textiles and Tannery, Timber, Pulp and Paper Works, Waste and Recycling Facilities, Wastewater Treatment Facilities.

Potentially Contaminating Activities and Locations (PCA) - © Google; Nearmap data; @ Datajet Australia Pty Ltd – with permission and @ Land Insight National Land Use Atlas (NLUA).

The Potentially Contaminating Activities (PCA) is a unique database proprietary to Land Insights. Please note that not all sources are included; only the most significant or larger databases are referenced for brevity. Individual research on each of these sources has not been included due to the comprehensive nature of the list.

Airports – Designated international airports in Australia @ Department of Infrastructure, Transport, Regional Development, Communities, and the Arts Australian Gov. List of airports Australia @ Wikipedia. Australia Airports Map @ Sydney-australia biz

Catte Dips: Cattle Dip Site Locator Northern Rivers Region - © State of New South Wales through NSW Department of Industry; and @ Land Insight National Land Use Atlas (NLUA).

Dry cleaners: Dry cleaners @ Drycleaning Institute of Australia; Lawrence Dry Cleaners Locations @ Lawrence Dry Cleaners, and @ Land Insight National Land Use Atlas (NLUA).

Landfill Sites: NSW – Landfill sites @ EPA NSW. QLD - Location of waste sites | Environment, land and water, Closed landfill sites @ QLD gov. SA - Landfill map, EPA SA. TAS – Landfills @ EPA TAS. VIC – Victorian Landfill Register - © EPA Victoria. Waste and Recycling Facilities: National Waste Management Facilities - © Commonwealth of Australia (Geoscience Australia), Australia's waste and resource recovery infrastructure @ DCCEEW @ Land Insight National Land Use Atlas (NLUA).

Petrol Stations: National Liquid Fuel Refineries and Facilities, Liquid Fuel & Aviation Fuel Depots/Terminals, National Liquid Fuel Refineries - © Commonwealth of Australia (Geoscience Australia), Petrol Stations @ Digital Atlas of Australia. Fuelcheck @ Fair Trading NSW gov. @ Land Insight National Land Use Atlas (NLUA).

Power Plants: AUS @ Powerplants Australia. QLD Power Plants map of Queensland @Department of Energy and Climate. Various sources. @ Land Insight National Land Use Atlas (NLUA).

Waste and Recycling Facilities: National Waste Management Facilities - © Commonwealth of Australia (Geoscience Australia), Australia's waste and resource recovery infrastructure @ DCCEEW. @ Land Insight National Land Use Atlas (NLUA). NSW – Waste facilities @ NSW EPA. NT - Waste & Recycling NT, City of Darwin. QLD - Public waste and recycling facilities in Queensland @ Queensland Government Open Data Portal. SA - Waste disposal, Waste depots @ EPA SA. TAS – Waste Centres, Waste Disposal Facilities @ EPA TAS. VIC - Victoria's waste and resource recovery infrastructure, Waste Facility Locations Victoria's Waste and Recycling Infrastructure Map © Recycling Victoria. WA @ VIC Gov. WA – Waste locations and recycling centres @ DEW WA. @ Land Insight National Land Use Atlas (NLUA).

Historical Business Directories

AUS - AUS Historical Commercial & Trade Directory Data – various sources, see below. UBD business & street directory, Sands & McDougall directories, @ Australian Business Datalist ABDL (with permission)
ACT - 1971, 1981 & 1991 Telecom Australia Yellow Pages Country NSW Directories – Permission for use Sensis 2017.
2005 - 2022 - @ Australian Business Datalist ABDL – with permission
NSW – Sydney Metropolitan Area: 1932-1933 John Sands Sydney Trades Directory
1940 & 1950 Commonwealth of Australia Telephone Directory Sydney
1960-1961 Telecom Australia Pink Pages Sydney – Permission for use Sensis
1970-1971 United Business Directories Sydney – Licenced under Hardie Grant
1974-1975 NSW Post Office Yellow Pages Sydney Buying Guide and Commercial/Industrial Directories – Permission for use Sensis
1980-1981 & 1990-1991 Telecom Australia Yellow Pages Sydney – Permission for use Sensis. 2005 – 2022 @ Australian Business Datalist ABDL
NT - 2005 - 2022 @ Australian Business Datalist ABDL – with permission
QLD - 1865, 1890, 1900, 1906, 1916, 1919, 1924, 1925, 1970 – Pugh's Almanac (copyright expired)
1970-1971 - Brisbane Telephone Directory (copyright expired)
2005 - 2022 - @ Australian Business Datalist ABDL – with permission
SA - 1930, 1935, 1944-45, 1950, 1955, 1960, 1965, 1970, 1973 - Sands & McDougall Melbourne Trade Directory (copyright expired)
2005 - 2022 @ Australian Business Datalist ABDL – with permission
TAS - 1896-1897, 1900, 1905, 1910, 1915, 1920, 1925, 1930, 1935, 1940-41, 1945-46, 1948 - Wises Post Office Directory (copyright expired)
2005 - 2022 @ Australian Business Datalist ABDL – with permission
VIC - 1900, 1905, 1915, 1925, 1935, 1945, 1955, 1965, 1975 - Sands & McDougall Melbourne Trade Directory (copyright expired)
1960-1961, 1970-1971 - Post Office Pink Pages Melbourne – Permission for use Sensis 2017
1981-1982, 1990-1991 - Telstra Yellow Pages Melbourne - Permission for use Sensis 2017
Telstra Yellow Pages Melbourne - Permission for use Sensis 2017
2005 - 2022 @ Australian Business Datalist ABDL – with permission
WA -2005 - 2022 @ Australian Business Datalist ABDL – with permission

Section 5 – Natural Hazards

Fire Hazards

AUS - Bushfire Prone Areas – © Australian Government Department of Climate Change, Energy, the Environment and Water. Bushfire History - © Commonwealth of Australia (Geoscience Australia). ACT - Bushfire Prone Areas – © ACT Government Environment, Planning and Sustainable Development Directorate. Bushfire History - NPWS Fire History - Wildfires and Prescribed Burns © State Government of NSW and Department of Planning, Industry and Environment. NSW - Bushfire Prone Areas – © State of New South Wales (NSW Rural Fire Service). Bushfire History - © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water, Wildfires and Prescribed Burns - © State of New South Wales, National Parks, and Wildlife Management Unit. NT - Bushfire Prone Areas – © NT Government of Australia through Department of Environment and Natural Resources. Bushfire History - ©The Commonwealth of Australia through the Department of the Environment and Energy. QLD - Bushfire Prone Areas – © Commonwealth Scientific and Industrial Research Organisation (CSIRO) in conjunction with the State of Queensland (Queensland Fire and Emergency Services). Bushfire History - © State of Queensland (Department of Environment and Science). SA - Bushfire Prone Areas – © SA Government Country Fire Service (CFS), Department of Planning, Transport, and Infrastructure. Bushfire History - © SA Government Department for Environment and Water. TAS - Bushfire Prone Areas – © Tasmania Fire Service. Bushfire History - © Department of Environment, Parks, and Water Security. VIC - Bushfire Prone Areas – © VIC Government Department of Environment, Land, Water and Planning; Department of Transport, Planning and Local Infrastructure. Bushfire History - © VIC Government Department of Transport, Planning and Local Infrastructure. WA - Bushfire Prone Areas – © WA Government Department of Fire and Emergency Services. Bushfire History - © WA Government Department of Fire and Emergency Services.

Flood Hazard

AUS - Flood Planning Area, Other Flood Studies, and Flood History - @ Commonwealth of Australia, @ Bureau of Meteorology. This dataset is digitised and/or aggregated from various verified Council Records, Aerial Photography Interpretation, Flood Imagery Maps, Topographic Maps, Historic Parish Maps, publicly available technical reports, and information digitised by the Land Insight Research team. @Land Insight Research. ACT - Flood Risk and Flood map information © ACT Government Environment, Planning and Sustainable Development Directorate – Environment. NSW - NSW Flood Data Portal @NSW State Emergency Service, © State Government of NSW, NSW Department of Climate Change, Energy, the Environment and Water; and NSW Department of Planning, Housing, and Infrastructure; @ NSW Government Spatial Services. NT - Floodplain maps, Flood monitoring © NT Government of Australia through Department of Environment and Natural Resources, Department of Lands, Planning, and the Environment. QLD - QLD Flood mapping, Historical flood mapping © The State of Queensland, Department of Resources, Queensland Reconstruction Authority. Flood data series and Flood data overlays (various) Queensland Open Data portal. SA - Flood Awareness map, Flood Risk © Crown in right of the State of South Australia, @ Government of South Australia, Department for Environment and Water. Flood mapping (various) SA Data Directory portal. TAS - Tasmania Flood Mapping Projects Reports @ Tasmania State Emergency Services. Floodplain Mapping in Tasmania, Flood Inundation Extent models. © Department of Natural Resources and Environment Tasmania. TAS TheList dataset portal. VIC - Victoria Flood mapping and overlays. © Copyright State Government of Victoria various datasets, Victoria State Emergency Service; Department of Energy, Environment and Climate Action, Department of Environment, Land, Water & Planning. Flood data (various) VIC data portal (data.vic). WA - Floodplain mapping tool, Landgate Flood Map. © Government of Western Australia, @ Department of Water and Environmental Regulation. Flood data (various) WA data portal.

Erosion Hazard

AUS - Soil Erosion Hazards, © Commonwealth of Australia (Geoscience Australia), @ Agriculture DAFF @Australian Government. ACT - Soil and Land Resources of the Australian Capital Territory, © State of New South Wales and Department of Planning and Environment. NSW – Land Soil Capability, Vulnerable lands, © State of New South Wales and Department of Planning and Environment NT - Land System, Soil Conservation, © Department of Environment, Parks, and Water Security. QLD - QLD Erosion prone areas, Coastal and Inland erosion areas, © The State of Queensland. SA - Landscape salad, Mass movement and soil Attributes, Water and Wind Erosion, © Department for Environment and Water. TAS - Coastal Erosion Hazard, Landslide Planning Map, Water and Wind Erosion Statewide map, © Department of Natural Resources and Environment Tasmania. VIC - Geomorphology of Victoria, © VIC Government Department of Jobs, Skills, Industry and Regions. WA - Soil Landscape Land Quality, Land capability assessment, Land instability Risk, Water Erosion Riks, Wind Erosion Risk, © WA Government Department of Primary Industries and Regional Development.

For more information visit www.landinsight.co or contact orders@landinsight.co.

Terms and Conditions

Terms and Conditions
1. Land Insight & Resources (Land Insight) will perform the Services in accordance with these terms and conditions
2. By submitting the Application Form, the User acknowledges that it has read and understood these terms and conditions and agrees to be bound by them.
3.Land Insight reserves the right to change these terms and conditions. Any change shall be effective upon notice, which may be given by Land Insight posting such change on the Website, or by direct communication with the User.

Services
4.Land Insight agrees to undertake the Services using due skill, care, and diligence.
5.The User assumes the sole risk of making use of, and/or relying on, the report and the Services. Land Insight makes no representations about the suitability, completeness, timeliness, reliability, legality, or accuracy of the Services.
6.Unless Land Insight agrees expressly otherwise:
(A) The Services are solely for the use and benefit of the User; and
(B) Land Insight does not accept any liability, whether directly or indirectly, for any liability or loss suffered or incurred by any third par ty placing any reliance on the performance of the Services or any Documents or material arising from or in connection with the Services.
7. The User warrants to Land Insight that it will not use the Services for any purpose that is unlawful or is otherwise inconsistent with these terms and conditions.
8. The User will not alter in any way or provide a copy of the report, or any Document prepared by Land Insight to any other person without Land Insight's prior written consent.

Payment Terms
9. The Fee will be payable at the time of submitting the Application Form unless invoicing payment terms have been negotiated prior to purchase with Land Insight.
10. The User and Land Insight may agree in writing to vary the Services. The fee for each variation shall be agreed between Land Insight and the User.
11. The User agrees to pay Land Insight the Fee, including the fee for any variation requested in accordance with clause 12.
12. If the User's rights are terminated and the User has made an advance payment, Land Insight will refund the User a reasonable proportion of the balance as determined by Land Insight in relation to the value of Services already provided.
13. GST at the prevailing rate is payable in addition to the Fee. The User agrees to pay any other applicable taxes, duties or government-imposed fees related to the User's use of the Services.

Intellectual Property
14. Land Insight owns all intellectual proper ty in the Report and arising from or in connection with the Services.
15.Land Insight grants the User a royalty free licence to use Land Insight's intellectual proper ty for that User's personal assessment of its Proper ty(s) only.

Privacy Policy
16. Upon submitting the Application Form the User consents to Land Insight's use of the personal data provided by the User for the purposes of providing the Services.
17. The Reliance on the report, the use of the Services and the use of Land Insight's Website is at the User's own risk. The User accepts that Land Insight does not guarantee the confidentiality of any communication or information transmitted through the use of the Website.
18. Land Insight will not provide to any third par ty any personal data provided by a User without the User's permission.
19. The User acknowledges that any feedback provided to Land Insight over the Website is not confidential and that Land Insight has the right to publish, reproduce, disseminate, transmit, distribute and copy (in whole or in part) any such feedback without the approval of the User.
20. Land Insight assumes no responsibility or liability for any content, communications or feedback submitted by a User over the Website. If a User has submitted objectionable content, communications or Feedback, Land Insight may, in its sole discretion, terminate that User's account, take legal action, or notify the appropriate authorities or par ties, without prior notice.

Third Party Services
21. The User accepts that, although the Website may contain or provide information regarding applications, products and/or services provided or offered by third par ties, Land Insight does not recommend or endorse any such third par ty applications, products, and/or services.
22. The report contains content provided to Land Insight by other par ties (Third Par ty Content). Land Insight is not responsible for, does not endorse and makes no representations either expressly or impliedly concerning the accuracy or completeness of any Third Par ty Content. You rely on the Third Par ty Content completely at your own risk.

Limit and Extent of Liability
23. Land Insight's liability is limited to the amount of the Fee. Liability arising in the provision of the Services is reduced to the extent that it arises out of or in connection with any negligent act or omission by the User.
24. Neither par ty is liable to the other for loss of actual or anticipated revenue or profits, increased capital, or financing costs, increased operational or borrowing costs, pure economic loss, exemplary or punitive damages or indirect or consequential damages or loss.
25. In no event shall Land Insight or any directors, officers, employees or agents be liable for any indirect, punitive, incidental, special, or consequential damages arising out of or in any way connected with the use of the Website, any delay or inability to use the Website, any information available on the Website, or otherwise arising out of the utilisation of the Website, whether based in contract, tor t, strict liability, or otherwise, even if Land Insight has been advised of the possibility of such damages. The negation of damages set forth herein is a fundamental element of the basis of the bargain between Land Insight and the User. The Services would not be provided without such limitations.

Property Verification

26. The User accepts that the Services provided do not take into account any information relating to the actual state or condition of the Property.
27. The User acknowledges that the Services are not to be interpreted as commenting on the physical characteristics or condition of the Proper ty, any particular purpose or use of that Proper ty or the saleability or value of the Property.

Termination and Modification

28. Land Insight reserves the right in its sole discretion to terminate, block or restrict the User's use of the Services or any portion thereof, for any reason, and without notice. In addition, Land Insight reserves the right in its sole discretion to terminate or modify any part of the Website without notice, for any reason.

Anti-Hacking

29. The User agrees not to directly or indirectly, attempt to or disrupt, impair, interfere with, alter, or modify the Website or any of its content.
30. The User agrees not to allow, aid or abet third par ties to directly or indirectly, attempt to or disrupt, impair, interfere with, alter or modify the Website or any of its content, or obtain access to any information regarding any User or any other report issued to a User.

Complaints

31. Any complaints in relation to the Services should, in the first instance, be in writing and addressed to Land Insight Customer Service at: info@landinsight.co. Land Insight will respond to any such complaints in writing as soon as practicably possible.

General Matters

32. These terms and conditions are governed by and will be construed and enforced in accordance with the laws of the State of New South Wales, Australia. If any dispute, controversy, or claim arises out of or relating to these terms and conditions, whether sounding in contract, tor t or otherwise, it shall be resolved by use of an alternative dispute resolution procedure acceptable to both par ties with the assistance of a mediator. If the dispute has not been resolved to the satisfaction of either par ty within 60 days of initiation of the procedure or if either par ty fails or refuses to participate in or withdraws from participating in the procedure, then either par ty may refer the dispute to the court.
33. These terms and conditions apply to all Services provided by Land Insight.
34. If there is any inconsistency between these terms and conditions and any other document or agreement between the par ties, these terms and conditions will prevail.
35. These terms and conditions represent the entire agreement between the par ties.
36. The User authorises Land Insight to destroy Documents which Land Insight has prepared or holds in connection with the Services 7 years after the last date on which the Services were provided.
37. If any of the terms of the Application Form or the terms and conditions are invalid, unenforceable, or void, the relevant term must be read down to the maximum extent possible or severed from the rest of the Application Form or these terms and conditions.
38. These terms and conditions can only be amended or varied by a written document signed by both par ties.
39. Neither par ty may assign or transfer any rights or obligations arising in the provision of the Services or these terms and conditions without the other party's written consent.

Defined Terms

Application Form	Means the form and accompanying information provided on the Website, completed, and submitted by the User to request the Services.
Document	Includes a report, and any other written or electronic document.
Fee	Means the amount set out in the Application Form or confirmed via an invoice.
Property	Means the proper ty to which the Services and the report relate.
Report	Means the Document prepared by Land Insight and provided to the User which contains the environmental and development data which is relevant to the Proper ty.
Services	Means the review of data and information on which the report is based, and the preparation and provision to the User of the report.
Website	Means Land Insight's online site, which is: www.landinsight.co
User	Means the person(s) set out in the Application Form including that person's permitted successors.

Land
Insight

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 06-May-2025

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	53
Listed Migratory Species:	49

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	5
Commonwealth Heritage Places:	None
Listed Marine Species:	54
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	7
Regional Forest Agreements:	None
Nationally Important Wetlands:	1
EPBC Act Referrals:	4
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area	In feature area
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Roosting known to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Roosting known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Endangered	Species or species habitat known to occur within area	In feature area
Limosa limosa Black-tailed Godwit [845]	Endangered	Roosting known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phaethon rubricauda westralis Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824]	Endangered	Species or species habitat may occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Roosting known to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Tringa nebularia](#)			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
[Xenus cinereus](#)			
Terek Sandpiper [59300]	Vulnerable	Roosting known to occur within area	In feature area
[Zanda latirostris listed as Calyptorhynchus latirostris](#)			
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area
INSECT			
[Hesperocolletes douglasi](#)			
Douglas' Broad-headed Bee, Rottnest Bee [66734]	Critically Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
[Dasyurus geoffroii](#)			
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Macroderma gigas](#)			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
[Pseudocheirus occidentalis](#)			
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
PLANT			
[Andersonia gracilis](#)			
Slender Andersonia [14470]	Endangered	Species or species habitat likely to occur within area	In feature area
[Banksia mimica](#)			
Summer Honeypot [82765]	Endangered	Species or species habitat may occur within area	In feature area
[Caladenia huegelii](#)			
King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat may occur within area	In buffer area only
[Conospermum undulatum](#)			
Wavy-leaved Smokebush [24435]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Diuris drummondii](#) Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Diuris micrantha](#) Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Diuris purdiei](#) Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area	In feature area
[Drakaea elastica](#) Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat likely to occur within area	In feature area
[Drakaea micrantha](#) Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Macarthuria keigheryi](#) Keighery's Macarthuria [64930]	Endangered	Species or species habitat may occur within area	In feature area
[Synaphea sp. Fairbridge Farm (D.Papenfus 696)](#) Selena's Synaphea [82881]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Thelymitra stellata](#) Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
SHARK			
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes giganteus			
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli			
Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Marine Species			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Lamna nasus			
Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Mobula alfredi as Manta alfredi			
Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In feature area
Mobula birostris as Manta birostris			
Giant Manta Ray [90034]		Species or species habitat may occur within area	In feature area
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Pristis pristis			
Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea			
Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Arenaria interpres			
Ruddy Turnstone [872]	Vulnerable	Roosting known to occur within area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris alba			
Sanderling [875]		Roosting known to occur within area	In feature area
Calidris canutus			
Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area	In feature area
[Calidris tenuirostris](#) Great Knot [862]	Vulnerable	Roosting known to occur within area	In feature area
[Charadrius bicinctus](#) Double-banded Plover [895]		Roosting known to occur within area	In feature area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Charadrius mongolus](#) Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
[Gallinago megala](#) Swinhoe's Snipe [864]		Roosting likely to occur within area	In feature area
[Gallinago stenura](#) Pin-tailed Snipe [841]		Roosting likely to occur within area	In feature area
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
[Limosa limosa](#) Black-tailed Godwit [845]	Endangered	Roosting known to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Numenius minutus](#) Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area	In feature area
[Numenius phaeopus](#) Whimbrel [849]		Roosting known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Roosting known to occur within area	In feature area
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In feature area
Tringa totanus Common Redshank, Redshank [835]		Roosting known to occur within area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Roosting known to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - IRWIN BARRACKS - KARRAKATTA [50175]	WA	In buffer area only
Unknown		
Commonwealth Land - [50726]	WA	In buffer area only
Commonwealth Land - [50709]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [51498]	WA	In buffer area only
Commonwealth Land - [51981]	WA	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Arenaria interpres Ruddy Turnstone [872]	Vulnerable	Roosting known to occur within area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Roosting known to occur within area	In feature area
Calidris alba Sanderling [875]		Roosting known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In feature area
Calidris tenuirostris Great Knot [862]	Vulnerable	Roosting known to occur within area overfly marine area	In feature area
Charadrius bicinctus Double-banded Plover [895]		Roosting known to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In feature area
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In feature area
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Limosa limosa Black-tailed Godwit [845]	Endangered	Roosting known to occur within area overfly marine area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area	In feature area
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In feature area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Phalaropus lobatus Red-necked Phalarope [838]		Roosting known to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In feature area
Pluvialis squatarola Grey Plover [865]	Vulnerable	Roosting known to occur within area overfly marine area	In feature area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In feature area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In feature area
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In feature area
Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In feature area
Tringa totanus Common Redshank, Redshank [835]		Roosting known to occur within area overfly marine area	In feature area
Xenus cinereus Terek Sandpiper [59300]	Vulnerable	Roosting known to occur within area overfly marine area	In feature area
Reptile			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Kings Park	Botanic Gardens	WA	In feature area
Matilda Bay Reserve	5(1)(g) Reserve	WA	In feature area
Milyu	Nature Reserve	WA	In buffer area only
Swan Estuary	Marine Park	WA	In feature area
Swan Estuary - Milyu	Marine Park	WA	In buffer area only
Swan Estuary - Pelican Point	Marine Park	WA	In feature area
Swan River	Management Area	WA	In feature area

Nationally Important Wetlands		[Resource Information]
Wetland Name	State	Buffer Status
Swan-Canning Estuary	WA	In feature area

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Shenton Park Subdivision	2004/1479	Controlled Action	Completed	In feature area
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
South West Metropolitan Railway Project	2003/1175	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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GOVERNMENT OF WESTERN AUSTRALIA

Dandjoo Species List Export

Created by Guest User on 06 May 2025

Source	Dandjoo – Department of Biodiversity, Conservation and Attractions
Method	User defined circle: [[115.82102, -31.97833]] 1.0 km.
Date time	2025-05-06T15:19:50.454265+08:00

Conservation status summary	Count
CD	1
CR	10
Cons code inherited from parent	5
EN	11
MI	10
MI, P4	1
None	255
OS	1
P1	7
P2	13
P3	28
P4	20
Parent of conservation listed taxa	11
VU	17
Total	**390**

Kingdoms	Count
Animalia	173
Bacteria	1
Chromista	3
Fungi	30
Plantae	183
Total unique species	**390**

#	Class	Family	Name	Establishment	Conservation
Animalia					
1	None	None	Bryozoa Ehrenberg, 1831		
2	None	None	Macomona deltoidalis (Lamarck, 1818)		
3	Actinopterygii Klein, 1885	Atherinidae	Atherinomorus vaigiensis (Quoy & Gaimard, 1825)		
4	Amphibia	Myobatrachidae	Myobatrachus gouldii (Gray, 1841)	native	
5	Amphibia	Pelodryadidae GÃ¼nther, 1858	Litoria moorei (Copland, 1957)	native	
6	Arachnida	Araneidae Clerck, 1757	Hortophora biapicata (L. Koch, 1871)		
7	Arachnida	Buthidae C.L. Koch, 1837	Lychas C.L. Koch, 1845		
8	Arachnida	Chthoniidae Daday, 1888	Austrochthonius J.C. Chamberlin, 1929		
9	Arachnida	Deinopidae C.L. Koch, 1850	Asianopis schomburgki (Karsch, 1878)	mixed	
10	Arachnida	Idiopidae Simon, 1889	Euoplos inornatus (Rainbow & Pulleine, 1918) *(inornate trapdoor spider (northern Jarrah Forest))*	native	P3

11	Arachnida	Idiopidae Simon, 1889	Idiosoma Ausserer, 1871		Parent of conservation listed taxa
12	Arachnida	Idiopidae Simon, 1889	Idiosoma sigillatum O. P.-Cambridge, 1870 *(Swan Coastal Plain shield-backed trapdoor spider)*	native	P3
13	Arachnida	Lamponidae Simon, 1893	Lampona cylindrata (L. Koch, 1866)		
14	Arachnida	Lycosidae	Artoria Thorell, 1877		
15	Arachnida	Lycosidae	Lycosa Latreille, 1804		
16	Arachnida	Lycosidae	Venator immansuetus (Simon, 1909)		
17	Arachnida	Miturgidae Simon, 1889	Mitzoruga Raven, 2009		
18	Arachnida	Olpiidae Banks, 1895	Beierolpium Heurtault, 1976		
19	Arachnida	Salticidae Blackwall, 1841	Hasarius adansoni (Audouin, 1826)		
20	Arachnida	Sparassidae Bertkau, 1872	Delena Walckenaer, 1833		
21	Arachnida	Sparassidae Bertkau, 1872	Delena cancerides Walckenaer, 1837		
22	Arachnida	Sparassidae Bertkau, 1872	Isopeda leishmanni Hogg, 1903		
23	Arachnida	Sparassidae Bertkau, 1872	Neosparassus Hogg, 1903		
24	Arachnida	Sparassidae Bertkau, 1872	Pediana occidentalis Hogg, 1903		
25	Arachnida	Theridiidae Sundevall, 1833	Latrodectus hasselti Thorell, 1870		
26	Arachnida	Triaenonychidae	Nunciella Roewer, 1929		
27	Asteroidea	Astropectinidae	Astropecten preissi MÃ¼ller & Troschel, 1843		
28	Aves	Acanthizidae	Acanthiza apicalis Gould, 1847	native	
29	Aves	Acanthizidae	Gerygone fusca (Gould, 1838)	native	
30	Aves	Acanthizidae	Smicrornis brevirostris (Gould, 1838)	native	
31	Aves	Accipitridae	Pandion haliaetus (Linnaeus, 1758)	native	MI
32	Aves	Accipitridae	Tachyspiza cirrocephala (Vieillot, 1817)	native	
33	Aves	Accipitridae	Tachyspiza fasciata Vigors & Horsfield, 1827	native	
34	Aves	Alcedinidae	Dacelo novaeguineae (Hermann, 1783)	alien	
35	Aves	Alcedinidae	Todiramphus sanctus (Vigors & Horsfield, 1827)	native	
36	Aves	Anatidae	Anas superciliosa Gmelin, 1789	native	
37	Aves	Anatidae	Cereopsis novaehollandiae grisea (Viellot, 1818)	native	VU
38	Aves	Anatidae	Oxyura australis Gould, 1836 *(Blue-billed Duck)*	native	P4
39	Aves	Ardeidae	Botaurus dubius Mathews, 1912	native	P4
40	Aves	Ardeidae	Botaurus flavicollis australis (Lesson, 1831)	native	P2
41	Aves	Ardeidae	Botaurus poiciloptilus (Wagler, 1827)	native	EN
42	Aves	Artamidae	Cracticus torquatus (Latham, 1802)	native	
43	Aves	Artamidae	Gymnorhina tibicen (Latham, 1802)		
44	Aves	Cacatuidae	Calyptorhynchus banksii naso Gould, 1837	native	VU
45	Aves	Cacatuidae	Zanda Mathews, 1913		Parent of conservation listed taxa
46	Aves	Cacatuidae	Zanda baudinii Lear, 1832	native	EN
47	Aves	Cacatuidae	Zanda latirostris Carnaby, 1948	native	EN
48	Aves	Campephagidae	Coracina novaehollandiae (Gmelin, 1789)	native	
49	Aves	Campephagidae	Lalage tricolor (Swainson, 1825)	native	
50	Aves	Columbidae	Spilopelia senegalensis (Linnaeus, 1766)		
51	Aves	Corvidae	Corvus coronoides Vigors & Horsfield, 1827	native	
52	Aves	Cuculidae	Chalcites lucidus (Gmelin & JF, 1788)	native	
53	Aves	Dicaeidae	Dicaeum hirundinaceum (Shaw, 1792)	native	
54	Aves	Diomedeidae	Diomedea exulans Linnaeus, 1758	native	VU
55	Aves	Diomedeidae	Phoebetria fusca (Hilsenberg, 1822)	native	EN
56	Aves	Diomedeidae	Thalassarche chlororhynchos (Gmelin, 1789)	native	VU

57	Aves	Diomedeidae	Thalassarche chrysostoma (J.R. Forster, 1785)	native	VU
58	Aves	Falconidae	Falco hypoleucos Gould, 1841 *(Grey Falcon)*	native	VU
59	Aves	Falconidae	Falco peregrinus Tunstall, 1771 *(Peregrine Falcon)*	native	OS
60	Aves	Falconidae	Falco peregrinus macropus Swainson, 1837	native	Cons code inherited from parent
61	Aves	Hirundinidae	Hirundo neoxena Gould, 1842	native	
62	Aves	Hirundinidae	Petrochelidon nigricans (Vieillot, 1817)	native	
63	Aves	Laridae	Anous stolidus pileatus (Scopoli, 1786)	native	Cons code inherited from parent
64	Aves	Laridae	Chroicocephalus novaehollandiae novaehollandiae Stephens, 1826		
65	Aves	Laridae	Hydroprogne caspia (Pallas, 1770) *(Caspian Tern)*	native	MI
66	Aves	Laridae	Onychoprion anaethetus anaethetus (Scopoli, 1786)		Cons code inherited from parent
67	Aves	Laridae	Sterna paradisaea Pontoppidan, 1763	native	MI
68	Aves	Laridae	Sternula nereis nereis Gould, 1843	native	VU
69	Aves	Laridae	Thalasseus bergii (Lichtenstein, 1823)	native	MI
70	Aves	Locustellidae Bonaparte, 1854	Cincloramphus mathewsi Iredale, 1911	native	
71	Aves	Megapodiidae	Leipoa ocellata Gould, 1840	native	VU
72	Aves	Meliphagidae	Acanthorhynchus superciliosus Gould, 1837	native	
73	Aves	Meliphagidae	Anthochaera carunculata (Shaw, 1790)	native	
74	Aves	Meliphagidae	Anthochaera lunulata Gould, 1838	native	
75	Aves	Meliphagidae	Gavicalis virescens (Vieillot, 1817)	native	
76	Aves	Meliphagidae	Lichmera indistincta (Vigors & Horsfield, 1827)	native	
77	Aves	Meropidae	Merops ornatus Latham, 1802	native	
78	Aves	Neosittidae	Daphoenositta chrysoptera (Latham, 1802)	native	
79	Aves	Pachycephalidae	Pachycephala rufiventris (Latham, 1802)	native	
80	Aves	Pardalotidae	Pardalotus striatus (Gmelin, 1789)	native	
81	Aves	Procellariidae	Ardenna carneipes (Gould, 1844)	native	VU
82	Aves	Procellariidae	Halobaena caerulea (Gmelin, 1789)	native	VU
83	Aves	Procellariidae	Macronectes giganteus (Gmelin, 1789)	native	MI
84	Aves	Psittacidae	Pezoporus wallicus flaviventris North, 1911	native	CR
85	Aves	Psittaculidae	Barnardius zonarius (Shaw, 1805)		
86	Aves	Psittaculidae	Purpureicephalus spurius (Kuhl, 1820)	native	
87	Aves	Psittaculidae	Trichoglossus haematodus (Linnaeus, 1771)	native	
88	Aves	Rallidae	Hypotaenidia philippensis (Linnaeus, 1766)		
89	Aves	Rhipiduridae	Rhipidura leucophrys (Latham, 1802)	native	
90	Aves	Rostratulidae	Rostratula australis (Gould, 1838) *(Australian Painted Snipe)*	native	EN
91	Aves	Scolopacidae	Calidris acuminata (Horsfield, 1821)	native	MI
92	Aves	Scolopacidae	Calidris ruficollis (Pallas, 1776)	native	MI
93	Aves	Scolopacidae	Numenius madagascariensis (Linnaeus, 1766) *(Eastern Curlew)*	native	CR
94	Aves	Scolopacidae	Tringa brevipes (Vieillot, 1816)	native	MI, P4
95	Aves	Scolopacidae	Tringa glareola Linnaeus, 1758	native	MI
96	Aves	Scolopacidae	Tringa nebularia (Gunnerus, 1767)	native	MI
97	Aves	Stercorariidae	Stercorarius parasiticus (Linnaeus, 1758)	native	MI
98	Aves	Strigidae	Ninox connivens connivens (Latham, 1802) *(Barking owl (southwest subpop.))*	native	P3
99	Aves	Sulidae	Sula leucogaster plotus (J.R. Forster, 1844)	native	Cons code inherited from parent
100	Aves	Turnicidae	Turnix varius (Latham, 1802)	native	
101	Aves	Tytonidae	Tyto novaehollandiae novaehollandiae (Stephens, 1826)	native	P3
102	Aves	Zosteropidae	Zosterops lateralis (Latham, 1802)	native	

103	Bivalvia	Hyriidae	Westralunio carteri Iredale, 1934 *(Carter's Freshwater Mussel)*	native	VU
104	Bivalvia	Mytilidae Rafinesque, 1815	Arcuatula senhousia (Benson, 1842)		
105	Bivalvia	Veneridae Rafinesque, 1815	Irus crenatus (Lamarck, 1818)		
106	Chilopoda Latreille, 1817	Scolopendridae	Notiasemus glauerti L. E. Koch, 1985		
107	Diplopoda de Blainville, 1844	Julidae Leach, 1814	Ommatoiulus moreleti (Lucas, 1860)		
108	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus Attems, 1911		
109	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus variabilis Attems, 1911		
110	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus whistleri Attems, 1911		
111	Diplopoda de Blainville, 1844	Paradoxosomatidae	Solaenodolichopus pruvoti (Brolemann, 1931)		
112	Gastropoda	Amphibolidae Gray, 1840	Salinator fragilis (Lamarck, 1822)		
113	Gastropoda	Batillariidae	Batillaria australis (Quoy & Gaimard, 1834)		
114	Gastropoda	Lymnaeidae	Lymnaea Lamarck, 1799		
115	Gastropoda	Trochidae Rafinesque, 1815	Monilea callifera (Lamarck, 1822)		
116	Insecta	Berothidae	Spermophorella		
117	Insecta	Blattidae	Zonioploca pallida Shelford, 1909		
118	Insecta	Bombyliidae Latreille, 1802	Choristus Walker, 1852		
119	Insecta	Buprestidae Leach, 1815	Diphucrania viridipurpurea (Carter, 1924)		
120	Insecta	Castniidae	Synemon gratiosa Westwood, 1877 *(Graceful Sunmoth)*	native	P4
121	Insecta	Chrysopidae	Calochrysa extranea (Esben-Petersen, 1917)		
122	Insecta	Cicadidae	Cicadidae		
123	Insecta	Crabronidae	Austrogorytes norrisi Bohart, 1984		
124	Insecta	Derbidae	Derbidae		
125	Insecta	Formicidae Latreille, 1809	Anonychomyrma itinerans perthensis (Forel, 1902)		
126	Insecta	Formicidae Latreille, 1809	Dolichoderus ypsilon Forel, 1902		
127	Insecta	Myrmeleontidae	Austrogymnocnemia meteorica (Gerstaecker, 1885)		
128	Insecta	Myrmeleontidae	Distoleon bistrigatus (Rambur, 1842)		
129	Insecta	Myrmeleontidae	Distoleon somnolentus (Gerstaecker, 1885)		
130	Insecta	Myrmeleontidae	Escura nigrosignata (Tillyard, 1916)		
131	Insecta	Myrmeleontidae	Myrmeleon acer Walker, 1853		
132	Insecta	Osmylidae	Stenosmylus		
133	Insecta	Tettigoniidae	Caedicia StÃ¥l, 1874		
134	Malacostraca	Parastacidae	Cherax tenuimanus Smith, 2002	native	CR
135	Mammalia	Canidae	Canis familiaris L., 1758	alien	
136	Mammalia	Dasyuridae	Dasyurus geoffroii Gould, 1841	native	VU
137	Mammalia	Dasyuridae	Dasyurus geoffroii fortis Thomas, 1906 *(Chuditch)*	native	Cons code inherited from parent
138	Mammalia	Dasyuridae	Dasyurus hallucatus Gould, 1842 *(Northern Quoll)*	native	EN
139	Mammalia	Dasyuridae	Parantechinus apicalis (Gray, 1842) *(Dibbler)*	native	EN
140	Mammalia	Dasyuridae	Phascogale tapoatafa wambenger Aplin, Rhind, Ten Have & Chesser, 2015 *(South-western Brush-tailed Phascogale)*	native	CD
141	Mammalia	Delphinidae	Tursiops		
142	Mammalia	Delphinidae	Tursiops truncatus truncatus Montague, 1821 *(Bottlenose Dolphin)*	native	
143	Mammalia	Felidae	Felis catus Linnaeus, 1758	alien	
144	Mammalia	Leporidae	Oryctolagus cuniculus (Linnaeus, 1758)	alien	
145	Mammalia	Macropodidae	Notamacropus irma (Jourdan, 1837) *(Western Brush Wallaby)*	native	P4

146	Mammalia	Macropodidae	Setonix brachyurus (Quoy & Gaimard, 1830) *(Quokka)*	native	VU
147	Mammalia	Muridae	Hydromys chrysogaster Geoffroy, 1804 *(Water-rat)*	native	P4
148	Mammalia	Muridae	Rattus norvegicus (Berkenhout, 1769)	alien	
149	Mammalia	Myrmecobiidae	Myrmecobius fasciatus Waterhouse, 1836 *(Numbat, Walpurti)*	native	EN
150	Mammalia	Otariidae	Arctocephalus tropicalis (Gray, 1872) *(Subantarctic fur-seal)*	native	VU
151	Mammalia	Peramelidae	Isoodon fusciventer (Gray, 1841)	native	P4
152	Mammalia	Peramelidae	Isoodon obesulus (Shaw, 1797)	native	
153	Mammalia	Phalangeridae	Trichosurus vulpecula (Kerr, 1793)	native	
154	Mammalia	Phalangeridae	Trichosurus vulpecula hypoleucus (Wagner, 1855)	native	
155	Mammalia	Pseudocheiridae	Pseudocheirus occidentalis (Thomas, 1888) *(Western Ringtail Possum)*	native	CR
156	Mammalia	Vespertilionidae	Chalinolobus gouldii (Gray, 1841) *(Gould's Wattled Bat)*	native	
157	Polychaeta ClaparÃ¨de, 1864	Nereididae	Neanthes vaalii Kinberg, 1866		
158	Reptilia	Agamidae	Pogona minor minor (Sternfeld, 1919) *(Western Bearded Dragon)*	native	
159	Reptilia	Chelidae	Pseudemydura umbrina Siebenrock, 1901 *(Western Swamp Tortoise)*	native	CR
160	Reptilia	Cheloniidae	Chelonia mydas (Linnaeus, 1758) *(Green Turtle)*	native	VU
161	Reptilia	Elapidae	Demansia reticulata (Gray, 1842) *(Reticulated Whipsnake)*		
162	Reptilia	Elapidae	Neelaps calonotos (A.M.C. DumÃ©ril, Bibron & A. DumÃ©ril, 1854) *(Black-striped Snake)*	native	P3
163	Reptilia	Elapidae	Pseudonaja affinis tanneri (Worrell, 1961) *(Pygmy Dugite)*	native	P4
164	Reptilia	Gekkonidae	Christinus marmoratus (Gray, 1845) *(Marbled Gecko)*	native	
165	Reptilia	Pygopodidae	Lialis burtonis Gray, 1835 *(Burton's Snake-lizard)*	native	
166	Reptilia	Scincidae	Cryptoblepharus buchananii (Gray, 1838) *(Buchanan's Snake-eyed Skink)*	native	
167	Reptilia	Scincidae	Ctenotus gemmula Storr, 1974 *(Jewelled South-west Ctenotus (Swan Coastal Plain subpop P3))*	native	Parent of conservation listed taxa
168	Reptilia	Scincidae	Hemiergis quadrilineatus (Dumeril, Shaw & Bibron, 1839)	native	
169	Reptilia	Scincidae	Lerista lineata Bell, 1883 *(Perth Slider)*	native	P3
170	Reptilia	Scincidae	Lerista lineopunctulata (Dumeril & Bibron, 1839) *(Line-spotted Robust Slider)*	native	
171	Reptilia	Scincidae	Menetia greyii Gray, 1845 *(Common Dwarf Skink)*	native	
172	Reptilia	Scincidae	Morethia obscura (Storr, 1973) *(Shrubland Pale-flecked Morethia)*	native	
173	Reptilia	Scincidae	Tiliqua rugosa rugosa (Gray, 1825) *(Bobtail)*	native	

Bacteria

174	Cyanophyceae	Oscillatoriaceae Engl.	Oscillatoria Vaucher ex Gomont		

Chromista

175	Coscinodiscophyceae	Melosiraceae	Melosira moniliformis C.Agardh	mixed	
176	Phaeophyceae	Ectocarpaceae	Ectocarpus siliculosus (Dillwyn) Lyngb.	native	
177	Phaeophyceae	Sphacelariaceae Decne.	Sphacelaria tribuloides Menegh.	native	

Fungi

178	Agaricomycetes	Thelephoraceae Chevall.	Tomentella Pat.		
179	Ascomycetes	Morchellaceae	Morchella elata Fr.	alien	
180	Ascomycetes	Morchellaceae	Morchella rufobrunnea GuzmÃ¡n & F. Tapia	alien	
181	Ascomycetes	Pyronemataceae Corda	Anthracobia muelleri (Berk.) Rifai	native	
182	Ascomycetes	Pyronemataceae Corda	Pyronema omphalodes (Bull.) Fuckel	native	
183	Basidiomycetes	Agaricaceae Chevall.	Agaricus rotalis K.R.Peterson, Desjardin & Hemmes	native	
184	Basidiomycetes	Agaricaceae Chevall.	Agaricus subrufescens Peck	native	
185	Basidiomycetes	Agaricaceae Chevall.	Lycoperdon Pers.		
186	Basidiomycetes	Amanitaceae Pouzar	Amanita Pers.		
187	Basidiomycetes	Amanitaceae Pouzar	Amanita brunneola E.M.Davison & Guistiniano	native	P2

188	Basidiomycetes	Amanitaceae Pouzar	Amanita drummondii E.M.Davison	native	P3
189	Basidiomycetes	Amanitaceae Pouzar	Amanita fibrillopes O.K.Mill.	native	P3
190	Basidiomycetes	Amanitaceae Pouzar	Amanita preissii (Fr.) Sacc.	native	P3
191	Basidiomycetes	Amanitaceae Pouzar	Amanita wadjukiorum E.M.Davison	native	P3
192	Basidiomycetes	Bolbitiaceae Singer	Bolbitius titubans (Bull.) Fr.	native	
193	Basidiomycetes	Boletaceae Chevall.	Boletus L.		
194	Basidiomycetes	Coniophoraceae Ulbr.	Coniophora puteana (Schumach.) P.Karst.	native	
195	Basidiomycetes	Hydnangiaceae GÃ¤um. & C.W.Dodge	Laccaria lateritia MalenÃ§on	native	
196	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe froudistii Matheny & Bougher	native	
197	Basidiomycetes	Marasmiaceae KÃ¼hner	Gymnopus confluens (Pers.) AntonÃn, Halling & Noordel.		
198	Basidiomycetes	Peniophoraceae	Scytinostroma duriusculum (Berk. & Broome) Donk	native	
199	Basidiomycetes	Physalacriaceae Corner	Xerula mundroola (Grgur.) R.H.Petersen	native	
200	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Candolleomyces D.WÃ¤cht. & A.Melzer		
201	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinellus pyrrhanthes (Romagn.) Redhead, Vilgalys & Moncalvo	native	
202	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinellus truncorum (Scop.) Redhead, Vilgalys & Moncalvo	native	
203	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Psathyrella piluliformis (Bull.) P.D.Orton		
204	Basidiomycetes	Sclerodermataceae Corda	Scleroderma Pers.		
205	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Gymnopilus allantopus (Berk.) Pegler	native	
206	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Leratiomyces ceres (Cooke & Massee) Spooner & Bridge	uncertain	
207	Sordariomycetes	Sordariaceae	Sordaria Ces. & De Not.		

Plantae

208	Florideophyceae	Ceramiaceae Dumort.	Ceramium macilentum J.Agardh	native	
209	Florideophyceae	Colaconemataceae J.T.Harper & G.W.Saunders	Colaconema daviesii (Dillwyn) Stegenga	native	
210	Florideophyceae	Colaconemataceae J.T.Harper & G.W.Saunders	Colaconema savianum (Menegh.) R.Nielsen	native	
211	Florideophyceae	Gracilariaceae NÃ¤geli	Gracilaria transtasmanica (M.Preuss, N.Muangmai & Zuccarello) Lyra, Iha, J.M.C.Nunes & C.C.Davis	alien	
212	Florideophyceae	Lomentariaceae	Fushitsunagia catenata (Harv.) Filloramo & G.W.Saunders	alien	
213	Florideophyceae	Rhodomelaceae Horan.	Polysiphonia Grev.		
214	Liliopsida	Anarthriaceae D.F.Cutler & Airy Shaw	Lyginia excelsa B.G.Briggs & L.A.S.Johnson	native	P2
215	Liliopsida	Araceae Juss.	Lazarum peltandroides (A.Hay, M.D.Barrett & R.L.Barrett) M.D.Barrett, A.Hay & Hett	native	P1
216	Liliopsida	Asparagaceae Juss.	Dichopogon capillipes (Endl.) Brittan	native	
217	Liliopsida	Asparagaceae Juss.	Lomandra caespitosa (Benth.) Ewart *(Tufted Mat Rush)*	native	
218	Liliopsida	Asparagaceae Juss.	Lomandra nigricans T.Macfarlane	native	
219	Liliopsida	Asparagaceae Juss.	Lomandra preissii (Endl.) Ewart *(Preiss' Mat Rush)*	native	
220	Liliopsida	Asparagaceae Juss.	Sowerbaea laxiflora Lindl.	native	
221	Liliopsida	Asparagaceae Juss.	Thysanotus manglesianus Kunth *(Fringed Lily, Mangles' Fringed Lily)*	native	
222	Liliopsida	Asparagaceae Juss.	Thysanotus sparteus R.Br. *(Leafless Fringed Lily)*	native	
223	Liliopsida	Colchicaceae DC.	Burchardia congesta Lindl.	native	
224	Liliopsida	Cyperaceae Juss.	Carex divisa Huds. *(Divided Sedge)*	alien	
225	Liliopsida	Cyperaceae Juss.	Cyathochaeta teretifolia W.Fitzg.	native	P3
226	Liliopsida	Cyperaceae Juss.	Cyperus gymnocaulos Steud.	native	
227	Liliopsida	Cyperaceae Juss.	Cyperus tenuiflorus Rottb.	alien	
228	Liliopsida	Cyperaceae Juss.	Lepidosperma angustatum R.Br.	native	

229	Liliopsida	Cyperaceae Juss.	Lepidosperma scabrum Nees	native	
230	Liliopsida	Cyperaceae Juss.	Schoenus capillifolius D.A.Cooke	native	P3
231	Liliopsida	Dasypogonaceae Dumort.	Calectasia grandiflora L.Preiss *(Blue Tinsel Lily)*	native	P2
232	Liliopsida	Haemodoraceae R.Br.	Conostylis bracteata Lindl.	native	P3
233	Liliopsida	Haemodoraceae R.Br.	Conostylis candicans Endl.	native	
234	Liliopsida	Haemodoraceae R.Br.	Conostylis setigera R.Br. subsp. setigera	native	
235	Liliopsida	Iridaceae Juss.	Freesia leichtlinii subsp. alba x leichtlinii subsp. leichtlinii		
236	Liliopsida	Juncaceae Juss.	Juncus kraussii subsp. australiensis (Buchenau) Snogerup	native	
237	Liliopsida	Juncaceae Juss.	Juncus pallidus R.Br.	native	
238	Liliopsida	Orchidaceae Juss.	Caladenia huegelii Rchb.f. *(Grand Spider Orchid)*	native	CR
239	Liliopsida	Orchidaceae Juss.	Cyanicula ixioides (Lindl.) Hopper & A.P.Br.	native	Parent of conservation listed taxa
240	Liliopsida	Orchidaceae Juss.	Eriochilus dilatatus subsp. multiflorus (Lindl.) Hopper & A.P.Br.	native	
241	Liliopsida	Orchidaceae Juss.	Leporella fimbriata (Lindl.) A.S.George	native	
242	Liliopsida	Orchidaceae Juss.	Pterostylis vittata Lindl. *(Banded Greenhood)*	native	
243	Liliopsida	Orchidaceae Juss.	Thelymitra fuscolutea R.Br. *(Chestnut Sun Orchid)*	native	
244	Liliopsida	Orchidaceae Juss.	Thelymitra variegata (Lindl.) F.Muell. *(Queen of Sheba)*	native	CR
245	Liliopsida	Poaceae Barnhart	Avena fatua L.	alien	
246	Liliopsida	Poaceae Barnhart	Briza maxima L.	alien	
247	Liliopsida	Poaceae Barnhart	Bromus diandrus Roth	alien	
248	Liliopsida	Poaceae Barnhart	Bromus hordeaceus L.	alien	
249	Liliopsida	Poaceae Barnhart	Ehrharta calycina Sm.	alien	
250	Liliopsida	Poaceae Barnhart	Hordeum vulgare L. *(Barley)*	alien	
251	Liliopsida	Poaceae Barnhart	Lachnagrostis drummondiana (Steud.) S.W.L.Jacobs	native	P1
252	Liliopsida	Poaceae Barnhart	Lagurus ovatus L.	alien	
253	Liliopsida	Poaceae Barnhart	Lolium L.		
254	Liliopsida	Poaceae Barnhart	Lolium rigidum Gaudin *(Wimmera Ryegrass)*	alien	
255	Liliopsida	Poaceae Barnhart	Micraira brevis M.D.Barrett & R.L.Barrett	native	Parent of conservation listed taxa
256	Liliopsida	Poaceae Barnhart	Paspalum dilatatum Poir.	alien	
257	Liliopsida	Poaceae Barnhart	Phalaris minor Retz. *(Lesser Canary Grass)*	alien	
258	Liliopsida	Poaceae Barnhart	Vulpia bromoides (L.) Gray	alien	
259	Liliopsida	Potamogetonaceae Bercht. & J. Presl	Stuckenia pectinata (L.) BÃ¶rner *(Fennel Pondweed)*	native	
260	Liliopsida	Restionaceae R.Br.	Desmocladus flexuosus (R.Br.) B.G.Briggs & L.A.S.Johnson	native	
261	Magnoliopsida	Asteraceae Bercht. & J.Presl	Angianthus micropodioides (Benth.) Benth.	native	P3
262	Magnoliopsida	Asteraceae Bercht. & J.Presl	Eclipta prostrata (L.) L.	alien	
263	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron bonariensis L.	alien	
264	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron canadensis L.	alien	
265	Magnoliopsida	Asteraceae Bercht. & J.Presl	Hypochaeris radicata L.	alien	
266	Magnoliopsida	Asteraceae Bercht. & J.Presl	Leontodon rhagadioloides (L.) Enke & Zidorn *(Cretan Weed)*	alien	
267	Magnoliopsida	Asteraceae Bercht. & J.Presl	Podolepis gracilis (Lehm.) Graham	native	
268	Magnoliopsida	Asteraceae Bercht. & J.Presl	Taraxacum khatoonae Abedin *(Dandelion)*	alien	
269	Magnoliopsida	Asteraceae Bercht. & J.Presl	Ursinia anthemoides (L.) Poir. *(Ursinia)*	alien	
270	Magnoliopsida	Caryophyllaceae Juss.	Petrorhagia dubia (Raf.) G.Lopez & Romo	alien	
271	Magnoliopsida	Caryophyllaceae Juss.	Silene gallica L. var. gallica	alien	

272	Magnoliopsida	Caryophyllaceae Juss.	Spergula arvensis L. *(Corn Spurry)*	alien	
273	Magnoliopsida	Caryophyllaceae Juss.	Spergularia nesophila L.G.Adams	native	P3
274	Magnoliopsida	Casuarinaceae R.Br.	Allocasuarina humilis (Otto & A.Dietr.) L.A.S.Johnson	native	
275	Magnoliopsida	Casuarinaceae R.Br.	Casuarina glauca Spreng.	alien	
276	Magnoliopsida	Chenopodiaceae Vent.	Atriplex isatidea Moq.	native	
277	Magnoliopsida	Convolvulaceae Juss.	Distimake dissectus (Jacq.) A.R.SimÃµes & Staples var. dissectus	alien	
278	Magnoliopsida	Convolvulaceae Juss.	Ipomoea cairica (L.) Sweet	alien	
279	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia hypericoides (DC.) Benth.	native	
280	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia hypericoides (DC.) Benth. subsp. hypericoides *(Yellow Buttercups)*	native	
281	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia leptotheca (J.R.Wheeler) K.R.Thiele	native	P3
282	Magnoliopsida	Ericaceae Juss.	Conostephium pendulum Benth.	native	
283	Magnoliopsida	Ericaceae Juss.	Needhamiella pumilio (R.Br.) L.Watson	native	
284	Magnoliopsida	Euphorbiaceae Juss.	Euphorbia peplus L. *(Petty Spurge)*	alien	
285	Magnoliopsida	Euphorbiaceae Juss.	Ricinocarpos tuberculatus MÃ¼ll.Arg.	native	P2
286	Magnoliopsida	Fabaceae Lindl.	Acacia applanata Maslin	native	
287	Magnoliopsida	Fabaceae Lindl.	Acacia benthamii Meisn. *(Bentham's Wattle)*	native	P2
288	Magnoliopsida	Fabaceae Lindl.	Acacia denticulosa F.Muell. *(Sandpaper Wattle)*	native	EN
289	Magnoliopsida	Fabaceae Lindl.	Acacia horridula Meisn.	native	P3
290	Magnoliopsida	Fabaceae Lindl.	Acacia lasiocarpa var. lasiocarpa Cockleshell Gully variant (E.A. Griffin 2039)	native	P2
291	Magnoliopsida	Fabaceae Lindl.	Acacia lateriticola Maslin	native	Parent of conservation listed taxa
292	Magnoliopsida	Fabaceae Lindl.	Acacia oncinophylla subsp. patulifolia R.S.Cowan & Maslin	native	P4
293	Magnoliopsida	Fabaceae Lindl.	Acacia pulchella var. glaberrima Meisn. *(Prickly Moses)*	native	
294	Magnoliopsida	Fabaceae Lindl.	Bossiaea eriocarpa Benth. *(Common Brown Pea)*	native	
295	Magnoliopsida	Fabaceae Lindl.	Daviesia nudiflora subsp. drummondii (Meisn.) Crisp	native	P3
296	Magnoliopsida	Fabaceae Lindl.	Gompholobium tomentosum Labill. *(Hairy Yellow Pea)*	native	
297	Magnoliopsida	Fabaceae Lindl.	Hardenbergia comptoniana (Andrews) Benth. *(Native Wisteria)*	native	
298	Magnoliopsida	Fabaceae Lindl.	Isotropis cuneifolia (Sm.) Heynh.	native	
299	Magnoliopsida	Fabaceae Lindl.	Isotropis cuneifolia (Sm.) Heynh. subsp. cuneifolia	native	
300	Magnoliopsida	Fabaceae Lindl.	Jacksonia sericea Benth. *(Waldjumi)*	native	P4
301	Magnoliopsida	Fabaceae Lindl.	Lotus angustissimus L. *(Narrowleaf Trefoil)*	alien	
302	Magnoliopsida	Fabaceae Lindl.	Lupinus angustifolius L. *(Narrowleaf Lupin)*	alien	
303	Magnoliopsida	Fabaceae Lindl.	Lupinus cosentinii Guss.	alien	
304	Magnoliopsida	Fabaceae Lindl.	Medicago polymorpha L. *(Burr Medic)*	alien	
305	Magnoliopsida	Fabaceae Lindl.	Melilotus indicus (L.) All.	alien	
306	Magnoliopsida	Fabaceae Lindl.	Robinia pseudoacacia L.	alien	
307	Magnoliopsida	Fabaceae Lindl.	Trifolium angustifolium L. var. angustifolium	alien	
308	Magnoliopsida	Fabaceae Lindl.	Trifolium campestre Schreb. var. campestre	alien	
309	Magnoliopsida	Fabaceae Lindl.	Trifolium dubium Sibth.	alien	
310	Magnoliopsida	Fabaceae Lindl.	Trifolium glomeratum L.	alien	
311	Magnoliopsida	Fabaceae Lindl.	Trifolium ornithopodioides L. *(Birdsfoot Fenugreek)*	alien	
312	Magnoliopsida	Gentianaceae Juss.	Schenkia australis (R.Br.) G.Mans.	native	
313	Magnoliopsida	Geraniaceae Juss.	Geranium molle L.	alien	
314	Magnoliopsida	Goodeniaceae R.Br.	Dampiera triloba Lindl.	native	P3
315	Magnoliopsida	Goodeniaceae R.Br.	Scaevola anchusifolia Benth. *(Silky Scaevola)*	native	
316	Magnoliopsida	Hypericaceae Juss.	Hypericum canariense L.	alien	
317	Magnoliopsida	Lamiaceae Martinov	Dasymalla axillaris Endl.	native	CR
318	Magnoliopsida	Lamiaceae Martinov	Dicrastylis micrantha Munir	native	P3
319	Magnoliopsida	Loranthaceae Juss.	Nuytsia floribunda (Labill.) G.Don *(Christmas Tree)*	native	
320	Magnoliopsida	Macarthuriaceae Christenh.	Macarthuria australis Endl.	native	
321	Magnoliopsida	Malvaceae Juss.	Lasiopetalum membranaceum (Steud.) Benth.	native	P3

322	Magnoliopsida	Malvaceae Juss.	Malva parviflora L. *(Marshmallow)*	alien	
323	Magnoliopsida	Malvaceae Juss.	Thomasia pygmaea (Turcz.) Benth. *(Tiny Thomasia)*	native	P3
324	Magnoliopsida	Moraceae Gaudich.	Ficus carica L.	alien	
325	Magnoliopsida	Myrtaceae Juss.	Calothamnus graniticus Hawkeswood	mixed	Parent of conservation listed taxa
326	Magnoliopsida	Myrtaceae Juss.	Calothamnus graniticus subsp. leptophyllus (Benth.) Hawkeswood	native	P4
327	Magnoliopsida	Myrtaceae Juss.	Calothamnus macrocarpus Hawkeswood	native	P2
328	Magnoliopsida	Myrtaceae Juss.	Corymbia calophylla (Lindl.) K.D.Hill & L.A.S.Johnson	native	
329	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia Benth. *(Caesia)*	native	Parent of conservation listed taxa
330	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia Benth. subsp. caesia	native	P4
331	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia subsp. magna Brooker & Hopper	native	P4
332	Magnoliopsida	Myrtaceae Juss.	Eucalyptus cladocalyx subsp. petila D.Nicolle	alien	
333	Magnoliopsida	Myrtaceae Juss.	Eucalyptus educta L.A.S.Johnson & K.D.Hill	native	P2
334	Magnoliopsida	Myrtaceae Juss.	Eucalyptus foecunda Schauer subsp. foecunda	native	P4
335	Magnoliopsida	Myrtaceae Juss.	Eucalyptus kruseana F.Muell.	native	P4
336	Magnoliopsida	Myrtaceae Juss.	Eucalyptus rhodantha Blakely & H.Steedman *(Rose Mallee, Scott's Mallee)*	native	Parent of conservation listed taxa
337	Magnoliopsida	Myrtaceae Juss.	Eucalyptus rhodantha Blakely & H.Steedman var. rhodantha	native	EN
338	Magnoliopsida	Myrtaceae Juss.	Eucalyptus stoatei C.A.Gardner *(Scarlet Pear Gum)*	native	P4
339	Magnoliopsida	Myrtaceae Juss.	Eucalyptus x mundijongensis Maiden	native	P1
340	Magnoliopsida	Myrtaceae Juss.	Gaudium laevigatum (Gaertn.) Peter G.Wilson		
341	Magnoliopsida	Myrtaceae Juss.	Hypocalymma inopinatum Rye, Keighery & M.D.Barrett		P2
342	Magnoliopsida	Myrtaceae Juss.	Hypocalymma magnificum Rye, Keighery & M.D.Barrett *(Superb Myrtle)*	native	EN
343	Magnoliopsida	Myrtaceae Juss.	Hypocalymma quadrangulare Rye & Keighery *(West Coast Myrtle)*	native	P3
344	Magnoliopsida	Myrtaceae Juss.	Kunzea glabrescens Toelken	native	
345	Magnoliopsida	Myrtaceae Juss.	Kunzea micrantha Schauer subsp. micrantha	native	
346	Magnoliopsida	Myrtaceae Juss.	Melaleuca viminalis (Gaertn.) Byrnes	native	Parent of conservation listed taxa
347	Magnoliopsida	Myrtaceae Juss.	Verticordia lindleyi Schauer subsp. lindleyi	native	P4
348	Magnoliopsida	Myrtaceae Juss.	Verticordia venusta A.S.George	native	P3
349	Magnoliopsida	Phyllanthaceae Martinov	Lysiandra calycina (Labill.) R.W.Bouman *(False Boronia)*	native	
350	Magnoliopsida	Phyllanthaceae Martinov	Phyllanthus L.		
351	Magnoliopsida	Phyllanthaceae Martinov	Poranthera moorokatta R.L.Barrett	native	P2
352	Magnoliopsida	Pittosporaceae R.Br.	Marianthus mollis (E.M.Benn.) L.Cayzer & Crisp	native	P4
353	Magnoliopsida	Proteaceae Juss.	Adenanthos cygnorum subsp. chamaephyton E.C.Nelson	native	P3
354	Magnoliopsida	Proteaceae Juss.	Banksia attenuata R.Br. *(Slender Banksia)*	native	
355	Magnoliopsida	Proteaceae Juss.	Banksia grandis Willd. *(Bull Banksia)*	native	
356	Magnoliopsida	Proteaceae Juss.	Banksia menziesii R.Br. *(Firewood Banksia)*	native	
357	Magnoliopsida	Proteaceae Juss.	Conospermum undulatum Lindl.	native	VU
358	Magnoliopsida	Proteaceae Juss.	Grevillea asparagoides Meisn.	native	P3
359	Magnoliopsida	Proteaceae Juss.	Grevillea endlicheriana Meisn. *(Spindly Grevillea)*	native	Parent of conservation listed taxa
360	Magnoliopsida	Proteaceae Juss.	Grevillea fililoba (McGill.) Olde & Marriott	native	P1
361	Magnoliopsida	Proteaceae Juss.	Grevillea ornithopoda Meisn.	native	P2
362	Magnoliopsida	Proteaceae Juss.	Grevillea pimeleoides W.Fitzg.	native	P4
363	Magnoliopsida	Proteaceae Juss.	Grevillea pinifolia Meisn. *(Pine-leaved Grevillea)*	native	P1
364	Magnoliopsida	Proteaceae Juss.	Grevillea thelemanniana Endl. *(Spider Net Grevillea)*	native	CR
365	Magnoliopsida	Proteaceae Juss.	Hakea varia R.Br.	native	
366	Magnoliopsida	Proteaceae Juss.	Isopogon drummondii *(Autumn Isopogon)*	native	P3
367	Magnoliopsida	Proteaceae Juss.	Petrophile latericola Keighery	native	CR

368	Magnoliopsida	Proteaceae Juss.	Petrophile linearis R.Br. *(Pixie Mops)*	native	
369	Magnoliopsida	Proteaceae Juss.	Stirlingia latifolia (R.Br.) Steud. *(Blueboy)*	native	
370	Magnoliopsida	Proteaceae Juss.	Synaphea spinulosa (Burm.f.) Merr.	native	
371	Magnoliopsida	Rubiaceae Juss.	Galium murale (L.) All.	alien	
372	Magnoliopsida	Rubiaceae Juss.	Opercularia vaginata Juss.	native	
373	Magnoliopsida	Santalaceae R.Br.	Korthalsella leucothrix Barlow	native	P1
374	Magnoliopsida	Sapindaceae Juss.	Dodonaea hackettiana W.Fitzg. *(Hackett's Hopbush)*	native	P4
375	Magnoliopsida	Scrophulariaceae Juss.	Eremophila brevifolia (Bartl.) F.Muell. *(Spotted Eremophila)*	native	P2
376	Magnoliopsida	Solanaceae Juss.	Anthocercis ilicifolia Hook. subsp. ilicifolia	native	
377	Magnoliopsida	Stylidiaceae R.Br.	Levenhookia preissii (Sond.) F.Muell.	native	P1
378	Magnoliopsida	Stylidiaceae R.Br.	Stylidium galioides C.A.Gardner *(Yellow Mountain Triggerplant)*	native	VU
379	Magnoliopsida	Stylidiaceae R.Br.	Stylidium hispidum Lindl. *(White Butterfly Triggerplant)*	native	
380	Magnoliopsida	Stylidiaceae R.Br.	Stylidium paludicola Wege	native	P3
381	Magnoliopsida	Stylidiaceae R.Br.	Stylidium striatum Lindl.	native	P4
382	Magnoliopsida	Thymelaeaceae Juss.	Pimelea rosea R.Br.	native	
383	Magnoliopsida	Urticaceae Juss.	Urtica urens L.	alien	
384	Ulvophyceae K.R.Mattox & K.D.Stewart	Caulerpaceae KÃ¼tz.	Caulerpa lagara Carruth., D.I.Walker & Huisman	native	
385	Ulvophyceae K.R.Mattox & K.D.Stewart	Cladophoraceae Wille	Rhizoclonium KÃ¼tz.		
386	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulotrichaceae	Ulothrix subflaccida Wille	native	
387	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva L.		
388	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva compressa L.	native	
389	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva flexuosa Wulfen	native	
390	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva intestinalis L.	native	

Conservation status definitions

Threatened species

- CR – Critically Endangered
- EN – Endangered
- VU – Vulnerable
- EX – Extinct
- EW – Extinct in the Wild
- CD – Species of special conservation interest (conservation dependent)
- OS – Species otherwise in need of special protection (other specially protected)
- MI – Migratory
- SP – Specially protected species

Priority species

- P1 – Priority 1: Poorly-known species – known from few locations, none on conservation lands
- P2 – Priority 2: Poorly-known species – known from few locations, some on conservation lands
- P3 – Priority 3: Poorly-known species – known from several locations
- P4 – Priority 4: Rare, Near Threatened and other species in need of monitoring

Dandjoo specific codes

- Parent of conservation listed taxa
- Cons code inherited from parent, X

Read full definitions at https://bio.wa.gov.au/guide/conservation-status-definitions

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Further note, precise locations of conservation listed species are considered sensitive. To protect this information, obfuscation has been applied to conservation-listed species records. For these species, the true location is ±10km from the search area used to generate this species list.

Dandjoo Species List Export

Created by Guest User on 06 May 2025

Source	Dandjoo – Department of Biodiversity, Conservation and Attractions
Method	User defined circle: [[115.82102, -31.97833]] 2.0 km.
Date time	2025-05-06T15:21:11.421383+08:00

Conservation status summary	Count
CD	1
CR	10
Cons code inherited from parent	7
EN	19
MI	16
MI, P4	1
None	881
OS	1
P1	7
P2	15
P3	32
P4	22
Parent of conservation listed taxa	11
VU	23
Total	**1046**

Kingdoms	Count
Animalia	402
Bacteria	2
Chromista	4
Fungi	199
Plantae	426
Protozoa	13
Total unique species	**1046**

#	Class	Family	Name	Establishment	Conservation
Animalia					
1	None	None	Bryozoa Ehrenberg, 1831		
2	None	None	Macomona deltoidalis (Lamarck, 1818)		
3	Actinopterygii Klein, 1885	Atherinidae	Atherinomorus vaigiensis (Quoy & Gaimard, 1825)		
4	Actinopterygii Klein, 1885	Atherinidae	Craterocephalus mugiloides (McCulloch, 1912)		
5	Actinopterygii Klein, 1885	Galaxiidae	Galaxias occidentalis Ogilby, 1899	native	
6	Actinopterygii Klein, 1885	Hemiramphidae	Hyporhamphus regularis (GÃ¼nther, 1866)		
7	Amphibia	Limnodynastidae	Heleioporus eyrei (Gray, 1845) *(Moaning Frog)*	native	
8	Amphibia	Limnodynastidae	Heleioporus psammophilus (Lee & Main, 1954) *(Sand Frog)*	native	

9	Amphibia	Limnodynastidae	Limnodynastes dorsalis (Gray, 1841)	native	
10	Amphibia	Myobatrachidae	Crinia georgiana Tschudi, 1838	native	
11	Amphibia	Myobatrachidae	Myobatrachus gouldii (Gray, 1841)	native	
12	Amphibia	Pelodryadidae GÃ¼nther, 1858	Litoria moorei (Copland, 1957)	native	
13	Arachnida	None	Scorpiones C.L. Koch, 1837		
14	Arachnida	Actinopodidae Simon, 1892	Missulena Walckenaer, 1805		
15	Arachnida	Anamidae Simon, 1889	Aname L. Koch, 1873		
16	Arachnida	Araneidae Clerck, 1757	Araneidae Clerck, 1757		
17	Arachnida	Araneidae Clerck, 1757	Araneus Clerck, 1757		
18	Arachnida	Araneidae Clerck, 1757	Argiope protensa L. Koch, 1872	mixed	
19	Arachnida	Araneidae Clerck, 1757	Argiope trifasciata (ForsskÃ¥l, 1775)	alien	
20	Arachnida	Araneidae Clerck, 1757	Celaenia Thorell, 1868		
21	Arachnida	Araneidae Clerck, 1757	Cyclosa trilobata (Urquhart, 1885)		
22	Arachnida	Araneidae Clerck, 1757	Hortophora biapicata (L. Koch, 1871)		
23	Arachnida	Araneidae Clerck, 1757	Socca senicaudata (Simon, 1908)		
24	Arachnida	Barychelidae Simon, 1892	Synothele michaelseni Simon, 1908		
25	Arachnida	Bothriuridae	Cercophonius Peters, 1861		
26	Arachnida	Bothriuridae	Cercophonius granulosus Kraepelin, 1908		
27	Arachnida	Buthidae C.L. Koch, 1837	Buthidae C.L. Koch, 1837		
28	Arachnida	Buthidae C.L. Koch, 1837	Lychas C.L. Koch, 1845		
29	Arachnida	Chthoniidae Daday, 1888	Austrochthonius J.C. Chamberlin, 1929		
30	Arachnida	Clubionidae Simon, 1878	Clubiona Latreille, 1804		
31	Arachnida	Corinnidae	Nyssus albopunctatus (Hogg, 1896)		
32	Arachnida	Corinnidae	Poecilipta Simon, 1897		
33	Arachnida	Ctenidae Keyserling, 1877	Ctenidae Keyserling, 1877		
34	Arachnida	Deinopidae C.L. Koch, 1850	Asianopis schomburgki (Karsch, 1878)	mixed	
35	Arachnida	Desidae Pocock, 1895	Badumna insignis (L. Koch, 1872)		
36	Arachnida	Garypidae Simon, 1879	Synsphyronus magnus Hoff, 1947	native	
37	Arachnida	Hersiliidae Thorell, 1869	Tamopsis perthensis B. Baehr & M. Baehr, 1987		
38	Arachnida	Idiopidae Simon, 1889	Euoplos inornatus (Rainbow & Pulleine, 1918) *(inornate trapdoor spider (northern Jarrah Forest))*	native	P3
39	Arachnida	Idiopidae Simon, 1889	Idiosoma Ausserer, 1871		Parent of conservation listed taxa
40	Arachnida	Idiopidae Simon, 1889	Idiosoma rhaphiduca (Rainbow & Pulleine, 1918)	native	
41	Arachnida	Idiopidae Simon, 1889	Idiosoma sigillatum O. P.-Cambridge, 1870 *(Swan Coastal Plain shield-backed trapdoor spider)*	native	P3
42	Arachnida	Lamponidae Simon, 1893	Lampona brevipes L. Koch, 1872		
43	Arachnida	Lamponidae Simon, 1893	Lampona cylindrata (L. Koch, 1866)		
44	Arachnida	Lycosidae	Artoria Thorell, 1877		
45	Arachnida	Lycosidae	Artoria linnaei Framenau, 2008		
46	Arachnida	Lycosidae	Dingosa serrata (L. Koch, 1877)		
47	Arachnida	Lycosidae	Lycosa Latreille, 1804		
48	Arachnida	Lycosidae	Tasmanicosa godeffroyi (L. Koch, 1865)		
49	Arachnida	Lycosidae	Venator Hogg, 1833		
50	Arachnida	Lycosidae	Venator immansuetus (Simon, 1909)		
51	Arachnida	Lycosidae	Venatrix pullastra (Simon, 1909)		
52	Arachnida	Miturgidae Simon, 1889	Mituliodon tarantulinus (L. Koch, 1873)		
53	Arachnida	Miturgidae Simon, 1889	Mitzoruga Raven, 2009		
54	Arachnida	Neopilionidae Lawrence, 1931	Ballarra longipalpus Hunt & Cokendolpher, 1991		
55	Arachnida	Neopilionidae Lawrence, 1931	Megalopsalis Roewer, 1923		
56	Arachnida	Nephilidae Simon, 1894	Trichonephila edulis (LabillardiÃ¨re, 1799)		
57	Arachnida	Olpiidae Banks, 1895	Beierolpium Heurtault, 1976		
58	Arachnida	Oxyopidae	Oxyopes Latreille, 1804		

59	Arachnida	Pholcidae C.L. Koch, 1851	Pholcus phalangioides (Fuesslin, 1775)		
60	Arachnida	Pholcidae C.L. Koch, 1851	Physocyclus globosus (Taczanowski, 1874)		
61	Arachnida	Salticidae Blackwall, 1841	Apricia jovialis (L. Koch, 1879)		
62	Arachnida	Salticidae Blackwall, 1841	Clynotis severus (L. Koch, 1879)		
63	Arachnida	Salticidae Blackwall, 1841	Euophryini		
64	Arachnida	Salticidae Blackwall, 1841	Hasarius adansoni (Audouin, 1826)		
65	Arachnida	Salticidae Blackwall, 1841	Maratus Karsch, 1878		
66	Arachnida	Salticidae Blackwall, 1841	Maratus pavonis (Dunn, 1947)		
67	Arachnida	Salticidae Blackwall, 1841	Thyene concinna (Keyserling, 1881)		
68	Arachnida	Scytodidae Blackwall, 1864	Scytodes thoracica (Latreille, 1802)		
69	Arachnida	Segestriidae Simon, 1893	Segestriidae Simon, 1893		
70	Arachnida	Sparassidae Bertkau, 1872	Delena Walckenaer, 1833		
71	Arachnida	Sparassidae Bertkau, 1872	Delena cancerides Walckenaer, 1837		
72	Arachnida	Sparassidae Bertkau, 1872	Holconia westralia Hirst, 1991		
73	Arachnida	Sparassidae Bertkau, 1872	Isopeda leishmanni Hogg, 1903		
74	Arachnida	Sparassidae Bertkau, 1872	Neosparassus Hogg, 1903		
75	Arachnida	Sparassidae Bertkau, 1872	Pediana occidentalis Hogg, 1903		
76	Arachnida	Tetragnathidae	Pinkfloydia harveyi Dimitrov & Hormiga, 2011	native	
77	Arachnida	Theridiidae Sundevall, 1833	Euryopis Menge, 1868		
78	Arachnida	Theridiidae Sundevall, 1833	Latrodectus hasselti Thorell, 1870		
79	Arachnida	Theridiidae Sundevall, 1833	Steatoda Sundevall, 1833		
80	Arachnida	Theridiidae Sundevall, 1833	Steatoda grossa (C. L. Koch, 1838)		
81	Arachnida	Theridiidae Sundevall, 1833	Theridiidae Sundevall, 1833		
82	Arachnida	Thomisidae Sundevall, 1833	Sidymella Strand, 1942		
83	Arachnida	Triaenonychidae	Nunciella Roewer, 1929		
84	Arachnida	Triaenonychidae	Nunciella aspera (Pocock, 1903)		
85	Arachnida	Urodacidae	Urodacus novaehollandiae Peters, 1861		
86	Asteroidea	Astropectinidae	Astropecten preissi MÃ¼ller & Troschel, 1843		
87	Aves	Acanthizidae	Acanthiza apicalis Gould, 1847	native	
88	Aves	Acanthizidae	Acanthiza chrysorrhoa (Quoy & Gaimard, 1830)	native	
89	Aves	Acanthizidae	Gerygone fusca (Gould, 1838)	native	
90	Aves	Acanthizidae	Smicrornis brevirostris (Gould, 1838)	native	
91	Aves	Accipitridae	Elanus caeruleus (Desfontaines, 1789)	native	
92	Aves	Accipitridae	Pandion haliaetus (Linnaeus, 1758)	native	MI
93	Aves	Accipitridae	Tachyspiza cirrocephala (Vieillot, 1817)	native	
94	Aves	Accipitridae	Tachyspiza fasciata Vigors & Horsfield, 1827	native	
95	Aves	Alcedinidae	Dacelo novaeguineae (Hermann, 1783)	alien	
96	Aves	Alcedinidae	Todiramphus sanctus (Vigors & Horsfield, 1827)	native	
97	Aves	Anatidae	Anas superciliosa Gmelin, 1789	native	
98	Aves	Anatidae	Cereopsis novaehollandiae grisea (Viellot, 1818)	native	VU
99	Aves	Anatidae	Oxyura australis Gould, 1836	native	P4
100	Aves	Anatidae	Tadorna tadornoides (Jardine & Selby, 1828)	native	
101	Aves	Apodidae	Apus pacificus pacificus (Latham, 1801)	native	Cons code inherited from parent
102	Aves	Ardeidae	Botaurus dubius Mathews, 1912	native	P4
103	Aves	Ardeidae	Botaurus flavicollis australis (Lesson, 1831)	native	P2
104	Aves	Ardeidae	Botaurus poiciloptilus (Wagler, 1827)	native	EN
105	Aves	Ardeidae	Nycticorax caledonicus (Gmelin, 1789) *(Rufous Night Heron)*	native	
106	Aves	Artamidae	Cracticus torquatus (Latham, 1802)	native	
107	Aves	Artamidae	Gymnorhina tibicen (Latham, 1802)		
108	Aves	Cacatuidae	Calyptorhynchus banksii naso Gould, 1837	native	VU
109	Aves	Cacatuidae	Eolophus roseicapilla (Vieillot, 1817)	native	
110	Aves	Cacatuidae	Nymphicus hollandicus (Kerr, 1792)	native	
					Parent of

111	Aves	Cacatuidae	Zanda Mathews, 1913		conservation listed taxa
112	Aves	Cacatuidae	Zanda baudinii Lear, 1832	native	EN
113	Aves	Cacatuidae	Zanda latirostris Carnaby, 1948	native	EN
114	Aves	Campephagidae	Coracina novaehollandiae (Gmelin, 1789)	native	
115	Aves	Campephagidae	Lalage tricolor (Swainson, 1825)	native	
116	Aves	Charadriidae	Charadrius cucullatus Vieillot, 1818 *(Hooded Dotterel, Hooded Plover)*	native	P4
117	Aves	Columbidae	Spilopelia chinensis (Scopoli, 1786)		
118	Aves	Columbidae	Spilopelia senegalensis (Linnaeus, 1766)		
119	Aves	Corvidae	Corvus coronoides Vigors & Horsfield, 1827	native	
120	Aves	Cuculidae	Chalcites basalis (Horsfield, 1821) *(Horsfield's Bronze Cuckoo)*	native	
121	Aves	Cuculidae	Chalcites lucidus (Gmelin & JF, 1788)	native	
122	Aves	Dicaeidae	Dicaeum hirundinaceum (Shaw, 1792)	native	
123	Aves	Diomedeidae	Diomedea exulans Linnaeus, 1758	native	VU
124	Aves	Diomedeidae	Phoebetria fusca (Hilsenberg, 1822)	native	EN
125	Aves	Diomedeidae	Thalassarche carteri (Rothschild, 1903)	native	EN
126	Aves	Diomedeidae	Thalassarche chlororhynchos (Gmelin, 1789)	native	VU
127	Aves	Diomedeidae	Thalassarche chrysostoma (J.R. Forster, 1785)	native	VU
128	Aves	Diomedeidae	Thalassarche melanophris (Temminck, 1828)	native	EN
129	Aves	Falconidae	Falco hypoleucos Gould, 1841 *(Grey Falcon)*	native	VU
130	Aves	Falconidae	Falco peregrinus Tunstall, 1771 *(Peregrine Falcon)*	native	OS
131	Aves	Falconidae	Falco peregrinus macropus Swainson, 1837	native	Cons code inherited from parent
132	Aves	Hirundinidae	Hirundo neoxena Gould, 1842	native	
133	Aves	Hirundinidae	Petrochelidon nigricans (Vieillot, 1817)	native	
134	Aves	Hydrobatidae	Oceanites oceanicus (Kuhl, 1820)	native	MI
135	Aves	Laridae	Anous stolidus pileatus (Scopoli, 1786)	native	Cons code inherited from parent
136	Aves	Laridae	Anous tenuirostris melanops Gould, 1846	native	EN
137	Aves	Laridae	Chlidonias leucopterus (Temminck, 1815)	native	MI
138	Aves	Laridae	Chroicocephalus novaehollandiae Stephens, 1826		
139	Aves	Laridae	Chroicocephalus novaehollandiae novaehollandiae Stephens, 1826		
140	Aves	Laridae	Hydroprogne caspia (Pallas, 1770)	native	MI
141	Aves	Laridae	Onychoprion anaethetus anaethetus (Scopoli, 1786)		Cons code inherited from parent
142	Aves	Laridae	Sterna paradisaea Pontoppidan, 1763	native	MI
143	Aves	Laridae	Sternula nereis nereis Gould, 1843	native	VU
144	Aves	Laridae	Thalasseus bergii (Lichtenstein, 1823)	native	MI
145	Aves	Locustellidae Bonaparte, 1854	Cincloramphus mathewsi Iredale, 1911	native	
146	Aves	Megapodiidae	Leipoa ocellata Gould, 1840	native	VU
147	Aves	Meliphagidae	Acanthorhynchus superciliosus Gould, 1837	native	
148	Aves	Meliphagidae	Anthochaera carunculata (Shaw, 1790)	native	
149	Aves	Meliphagidae	Anthochaera lunulata Gould, 1838	native	
150	Aves	Meliphagidae	Gavicalis virescens (Vieillot, 1817)	native	
151	Aves	Meliphagidae	Lichmera indistincta (Vigors & Horsfield, 1827)	native	
152	Aves	Meliphagidae	Melithreptus chloropsis Gould, 1848	native	
153	Aves	Meliphagidae	Phylidonyris niger (Bechstein, 1811)	native	
154	Aves	Meliphagidae	Phylidonyris novaehollandiae (Latham, 1790) *(New Holland Honeyeater)*	native	
155	Aves	Meropidae	Merops ornatus Latham, 1802	native	
156	Aves	Neosittidae	Daphoenositta chrysoptera (Latham, 1802)	native	

157	Aves	Pachycephalidae	Pachycephala rufiventris (Latham, 1802)	native	
158	Aves	Pardalotidae	Pardalotus punctatus (Shaw, 1792)	native	
159	Aves	Pardalotidae	Pardalotus striatus (Gmelin, 1789)	native	
160	Aves	Pelecanidae	Pelecanus conspicillatus Temminck, 1824	native	
161	Aves	Procellariidae	Ardenna carneipes (Gould, 1844)	native	VU
162	Aves	Procellariidae	Ardenna grisea (Gmelin, 1789)	native	MI
163	Aves	Procellariidae	Ardenna pacifica (Gmelin, 1789)	native	MI
164	Aves	Procellariidae	Halobaena caerulea (Gmelin, 1789)	native	VU
165	Aves	Procellariidae	Macronectes giganteus (Gmelin, 1789)	native	MI
166	Aves	Procellariidae	Pterodroma mollis (Gould, 1844)	native	VU
167	Aves	Procellariidae	Puffinus huttoni Mathews, 1912	native	EN
168	Aves	Psittacidae	Pezoporus wallicus flaviventris North, 1911	native	CR
169	Aves	Psittaculidae	Barnardius zonarius (Shaw, 1805)		
170	Aves	Psittaculidae	Purpureicephalus spurius (Kuhl, 1820)	native	
171	Aves	Psittaculidae	Trichoglossus haematodus (Linnaeus, 1771)	native	
172	Aves	Rallidae	Fulica atra Linnaeus, 1758 *(Eurasian Coot)*	native	
173	Aves	Rallidae	Gallinula tenebrosa Gould, 1846 *(Dusky Moorhen)*	native	
174	Aves	Rallidae	Hypotaenidia philippensis (Linnaeus, 1766)		
175	Aves	Rallidae	Tribonyx ventralis (Gould, 1837)	native	
176	Aves	Rhipiduridae	Rhipidura leucophrys (Latham, 1802)	native	
177	Aves	Rostratulidae	Rostratula australis (Gould, 1838) *(Australian Painted Snipe)*	native	EN
178	Aves	Scolopacidae	Calidris acuminata (Horsfield, 1821)	native	MI
179	Aves	Scolopacidae	Calidris ruficollis (Pallas, 1776)	native	MI
180	Aves	Scolopacidae	Numenius madagascariensis (Linnaeus, 1766) *(Eastern Curlew)*	native	CR
181	Aves	Scolopacidae	Tringa brevipes (Vieillot, 1816)	native	MI, P4
182	Aves	Scolopacidae	Tringa glareola Linnaeus, 1758	native	MI
183	Aves	Scolopacidae	Tringa nebularia (Gunnerus, 1767)	native	MI
184	Aves	Stercorariidae	Stercorarius parasiticus (Linnaeus, 1758)	native	MI
185	Aves	Strigidae	Ninox connivens connivens (Latham, 1802)	native	P3
186	Aves	Sulidae	Sula leucogaster plotus (J.R. Forster, 1844)	native	Cons code inherited from parent
187	Aves	Threskiornithidae	Plegadis falcinellus (Linnaeus, 1766)	native	MI
188	Aves	Threskiornithidae	Threskiornis moluccus (Cuvier, 1829)	native	
189	Aves	Turnicidae	Turnix varius (Latham, 1802)	native	
190	Aves	Tytonidae	Tyto novaehollandiae novaehollandiae (Stephens, 1826)	native	P3
191	Aves	Zosteropidae	Zosterops lateralis (Latham, 1802)	native	
192	Aves	Zosteropidae	Zosterops lateralis chloronotus Gould, 1841	native	
193	Bivalvia	Hyriidae	Westralunio carteri Iredale, 1934 *(Carter's Freshwater Mussel)*	native	VU
194	Bivalvia	Mytilidae Rafinesque, 1815	Arcuatula senhousia (Benson, 1842)		
195	Bivalvia	Veneridae Rafinesque, 1815	Irus crenatus (Lamarck, 1818)		
196	Chilopoda Latreille, 1817	Scolopendridae	Cormocephalus aurantiipes (Newport, 1844)		
197	Chilopoda Latreille, 1817	Scolopendridae	Cormocephalus novaehollandiae (Kraepelin, 1908)		
198	Chilopoda Latreille, 1817	Scolopendridae	Cormocephalus rubriceps (Newport, 1843)		
199	Chilopoda Latreille, 1817	Scolopendridae	Cormocephalus strigosus Kraepelin, 1908		
200	Chilopoda Latreille, 1817	Scolopendridae	Notiasemus glauerti L. E. Koch, 1985		
201	Chondrichthyes Huxley, 1880	Lamnidae	Carcharodon carcharias (Linnaeus, 1758) *(Great White Shark)*	native	VU
202	Diplopoda de Blainville, 1844	Julidae Leach, 1814	Ommatoiulus moreleti (Lucas, 1860)		

203	Diplopoda de Blainville, 1844	Paradoxosomatidae	Akamptogonus novarae (Humbert & de Saussure, 1869)		
204	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus Attems, 1911		
205	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus variabilis Attems, 1911		
206	Diplopoda de Blainville, 1844	Paradoxosomatidae	Antichiropus whistleri Attems, 1911		
207	Diplopoda de Blainville, 1844	Paradoxosomatidae	Oxidus gracilis (C.L. Koch, 1847)		
208	Diplopoda de Blainville, 1844	Paradoxosomatidae	Solaenodolichopus Verhoeff, 1924		
209	Diplopoda de Blainville, 1844	Paradoxosomatidae	Solaenodolichopus pruvoti (Brolemann, 1931)		
210	Gastropoda	Amphibolidae Gray, 1840	Salinator fragilis (Lamarck, 1822)		
211	Gastropoda	Batillariidae	Batillaria australis (Quoy & Gaimard, 1834)		
212	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon Pilsbry, 1894		
213	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon bulla (Menke, 1843)	native	
214	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon indutus (Menke, 1843)		
215	Gastropoda	Bothriembryontidae Iredale, 1937	Bothriembryon kendricki Hill, Johnson & Merrifield, 1983		
216	Gastropoda	Charopidae	Luinodiscus sublesta (Benson, 1853)		
217	Gastropoda	Helicidae Rafinesque, 1815	Cornu aspersum (MÃ¼ller, 1774)		
218	Gastropoda	Lymnaeidae	Lymnaea Lamarck, 1799		
219	Gastropoda	Physidae	Physa Draparnaud, 1801		
220	Gastropoda	Planorbidae Rafinesque, 1815	Glyptophysa georgiana (Quoy & Gaimard, 1832)		
221	Gastropoda	Punctidae	Paralaoma Iredale, 1913		
222	Gastropoda	Punctidae	Paralaoma servilis (Shuttleworth, 1852)		
223	Gastropoda	Succineidae Beck, 1837	Succinea Draparnaud, 1801		
224	Gastropoda	Tomichiidae Wenz, 1938	Coxiella striatula (Menke, 1843)		
225	Gastropoda	Trochidae Rafinesque, 1815	Monilea callifera (Lamarck, 1822)		
226	Homoscleromorpha Bergquist, 1978	Plakinidae Schulze, 1880	Corticium Schmidt, 1862		
227	Insecta	None	Odonata		
228	Insecta	Aeshnidae	Adversaeschna brevistyla (Rambur, 1842)		
229	Insecta	Alydidae	Leptocorisa Latreille, 1829		
230	Insecta	Berothidae	Spermophorella		
231	Insecta	Bittacidae	Harpobittacus Gerstaecker, 1885		
232	Insecta	Blattidae	Zonioploca pallida Shelford, 1909		
233	Insecta	Bombyliidae Latreille, 1802	Choristus Walker, 1852		
234	Insecta	Braconidae	Cheloninae		
235	Insecta	Buprestidae Leach, 1815	Castiarina picta (Gory & Laporte, 1838)		
236	Insecta	Buprestidae Leach, 1815	Diphucrania leucosticta (Kirby, 1818)		
237	Insecta	Buprestidae Leach, 1815	Diphucrania viridipurpurea (Carter, 1924)		
238	Insecta	Buprestidae Leach, 1815	Ethonion KubÃ¡n, 2001		
239	Insecta	Buprestidae Leach, 1815	Melobasis lathami (Laporte & Gory, 1837)		
240	Insecta	Callipappidae	Callipappus GuÃ©rin MÃ©neville, 1841		
241	Insecta	Callipappidae	Callipappus farinosus Fuller, 1897		
242	Insecta	Castniidae	Synemon gratiosa Westwood, 1877 *(Graceful Sunmoth)*	native	P4
243	Insecta	Cerambycidae	Coleocoptus senio (Newman, 1840)		
244	Insecta	Cerambycidae	Coptocercus rubripes (Boisduval, 1835)		
245	Insecta	Cerambycidae	Hermerius prionoides (Thomson, 1864)		
246	Insecta	Cerambycidae	Phoracantha impavida Newman, 1850		
247	Insecta	Cerambycidae	Phoracantha semipunctata (Fabricius, 1775)		
248	Insecta	Cercopidae	Bathyllus albicinctus (Erichson, 1842)		

249	Insecta	Chrysopidae	Calochrysa extranea (Esben-Petersen, 1917)		
250	Insecta	Cicadellidae Latreille, 1825	Nesoclutha phryne (Kirkaldy, 1907) *(Australian Grass Leafhopper)*		
251	Insecta	Cicadidae	Cicadidae		
252	Insecta	Coccidae	Ceroplastes rubens Maskell, 1893		
253	Insecta	Coccidae	Parasaissetia nigra (Nietner, 1861)		
254	Insecta	Coccinellidae	Coelophora inaequalis (Fabricius, 1775)		
255	Insecta	Colletidae	Leioproctus (Leioproctus) Smith, 1853		
256	Insecta	Corduliidae	Hemicordulia australiae (Rambur, 1842)		
257	Insecta	Corduliidae	Hemicordulia tau (Selys, 1871)		
258	Insecta	Corduliidae	Procordulia affinis (Selys, 1871)		
259	Insecta	Crabronidae	Austrogorytes norrisi Bohart, 1984		
260	Insecta	Crabronidae	Pison		
261	Insecta	Derbidae	Derbidae		
262	Insecta	Erebidae Leach, 1815	Calathusa ischnodes (Turner, 1903)		
263	Insecta	Erebidae Leach, 1815	Pantydia capistrata T.P. Lucas, 1894		
264	Insecta	Fergusoninidae Tonnoir, 1937	Fergusonina newmani Tonnoir, 1937		
265	Insecta	Formicidae Latreille, 1809	Anonychomyrma itinerans perthensis (Forel, 1902)		
266	Insecta	Formicidae Latreille, 1809	Aphaenogaster poultoni Crawley, 1922		
267	Insecta	Formicidae Latreille, 1809	Dolichoderus clusor Forel, 1907		
268	Insecta	Formicidae Latreille, 1809	Dolichoderus ypsilon Forel, 1902		
269	Insecta	Formicidae Latreille, 1809	Iridomyrmex calvus Emery, 1914		
270	Insecta	Formicidae Latreille, 1809	Iridomyrmex discors Forel, 1902		
271	Insecta	Formicidae Latreille, 1809	Iridomyrmex rufoniger (Lowne, 1865)		
272	Insecta	Formicidae Latreille, 1809	Iridomyrmex splendens Forel, 1907		
273	Insecta	Formicidae Latreille, 1809	Monomorium fieldi Forel, 1910		
274	Insecta	Formicidae Latreille, 1809	Monomorium sordidum Forel, 1902		
275	Insecta	Formicidae Latreille, 1809	Monomorium sydneyense Forel, 1902		
276	Insecta	Formicidae Latreille, 1809	Myrmecia nigriceps Mayr, 1862		
277	Insecta	Formicidae Latreille, 1809	Myrmecia rugosa Wheeler, 1933		
278	Insecta	Formicidae Latreille, 1809	Myrmecia vindex Smith, 1858		
279	Insecta	Formicidae Latreille, 1809	Paraparatrechina minutula (Forel, 1901)		
280	Insecta	Geometridae	Anachloris tofocolorata Schmidt, 2001		
281	Insecta	Gomphidae	Austrogomphus (Austrogomphus) collaris Hagen, 1854		
282	Insecta	Gryllotalpidae Leach, 1815	Gryllotalpa Latreille, 1802		
283	Insecta	Hesperiidae Latreille, 1809	Anisynta sphenosema (Meyrick & Lower, 1902)		
284	Insecta	Hesperiidae Latreille, 1809	Taractrocera papyria agraulia (Hewitson, 1868)		
285	Insecta	Hyocephalidae	Hyocephalus aprugnus Bergroth, 1906		
286	Insecta	Lestidae	Austrolestes analis (Rambur, 1842)		
287	Insecta	Lestidae	Austrolestes annulosus (Selys, 1862)		
288	Insecta	Lestidae	Austrolestes io (Selys, 1862)		
289	Insecta	Libellulidae	Diplacodes bipunctata (Brauer, 1865)		
290	Insecta	Lycaenidae	Ogyris amaryllis meridionalis Bethune-Baker, 1905		
291	Insecta	Lygaeidae	Spilostethus pacificus (Boisduval, 1835)		
292	Insecta	Mantidae	Mantis octospilota Westwood, 1889		
293	Insecta	Megachilidae	Megachile (Eutricharaea) chrysopyga Smith, 1853		
294	Insecta	Megachilidae	Megachile (Mitchellapis) Michener, 1965		
295	Insecta	Myrmeleontidae	Austrogymnocnemia meteorica (Gerstaecker, 1885)		
296	Insecta	Myrmeleontidae	Distoleon bistrigatus (Rambur, 1842)		
297	Insecta	Myrmeleontidae	Distoleon somnolentus (Gerstaecker, 1885)		
298	Insecta	Myrmeleontidae	Escura nigrosignata (Tillyard, 1916)		
299	Insecta	Myrmeleontidae	Myrmeleon acer Walker, 1853		
300	Insecta	Nitidulidae Latreille, 1802	Urophorus humeralis (Fabricius, 1798)		
301	Insecta	Noctuidae Latreille, 1809	Proteuxoa interferens (Walker, 1857)		

302	Insecta	Nymphalidae Rafinesque, 1815	Geitoneura klugii (GuÃ©rin-MÃ©neville, 1830)		
303	Insecta	Nymphalidae Rafinesque, 1815	Geitoneura minyas (Waterhouse & Lyell, 1914)		
304	Insecta	Nymphalidae Rafinesque, 1815	Heteronympha merope duboulayi (Butler, 1867)		
305	Insecta	Nymphalidae Rafinesque, 1815	Heteronympha merope merope (Fabricius, 1775)		
306	Insecta	Nymphalidae Rafinesque, 1815	Junonia villida calybe (Godart, 1819)		
307	Insecta	Nymphalidae Rafinesque, 1815	Vanessa kershawi (McCoy, 1868)		
308	Insecta	Osmylidae	Stenosmylus		
309	Insecta	Pentatomidae	Alcaeus Dallas, 1851		
310	Insecta	Pentatomidae	Dictyotus inconspicuus Dallas, 1851		
311	Insecta	Pentatomidae	Ocirrhoe inconspicua (Dallas, 1851)		
312	Insecta	Pentatomidae	Ocirrhoe unimaculata (Westwood, 1837)		
313	Insecta	Pentatomidae	Piezodorus oceanicus (Montrouzier, 1864)		
314	Insecta	Reduviidae	Neohavinthus pentatoma (Herrich-Schaeffer, 1853)		
315	Insecta	Reduviidae	Trachylestes turneri (Miller, 1958)		
316	Insecta	Rhinotermitidae	Coptotermes michaelseni Silvestri, 1909		
317	Insecta	Rhyparochromidae	Plinthisus (Locutius) woodwardi Slater & Sweet, 1977		
318	Insecta	Scutelleridae	Choerocoris variegatus Dallas, 1851		
319	Insecta	Termitidae	Microcerotermes newmani Hill, 1927		
320	Insecta	Tettigoniidae	Caedicia StÃ¥l, 1874		
321	Insecta	Tettigoniidae	Dexerra turpis Walker, 1869		
322	Insecta	Tettigoniidae	Hemisaga denticulata (White, 1841)		
323	Insecta	Tettigoniidae	Kawanaphila nartee Rentz, 1993		
324	Insecta	Tettigoniidae	Metaballus frontalis (Walker, 1869)		
325	Insecta	Tettigoniidae	Metaballus litus Rentz, 1985		
326	Insecta	Tettigoniidae	Metaballus mucronatus Rentz, 1985		
327	Insecta	Tettigoniidae	Pachysaga australis (Walker, 1869)		
328	Insecta	Tettigoniidae	Phasmodes ranatriformis Westwood, 1845		
329	Insecta	Tettigoniidae	Psacadonotus diurnus Rentz, 1993		
330	Malacostraca	Armadillidae Brandt, 1831	Buddelundia cinerascens (Budde-Lund, 1912)		
331	Malacostraca	Parastacidae	Cherax quinquecarinatus (Gray, 1845)		
332	Malacostraca	Parastacidae	Cherax tenuimanus Smith, 2002	native	CR
333	Mammalia	Balaenidae	Eubalaena australis (Desmoulins, 1822) *(Southern Right Whale)*	native	VU
334	Mammalia	Balaenopteridae	Balaenoptera physalus (Linnaeus, 1758) *(Fin Whale)*	native	EN
335	Mammalia	Balaenopteridae	Balaenoptera physalus quoyi Fischer, 1829 *(Fin Whale)*	native	Cons code inherited from parent
336	Mammalia	Canidae	Canis familiaris L., 1758	alien	
337	Mammalia	Canidae	Vulpes vulpes Linnaeus, 1758 *(Red Fox)*	alien	
338	Mammalia	Dasyuridae	Dasyurus geoffroii Gould, 1841	native	VU
339	Mammalia	Dasyuridae	Dasyurus geoffroii fortis Thomas, 1906 *(Chuditch)*	native	Cons code inherited from parent
340	Mammalia	Dasyuridae	Dasyurus hallucatus Gould, 1842 *(Northern Quoll)*	native	EN
341	Mammalia	Dasyuridae	Parantechinus apicalis (Gray, 1842) *(Dibbler)*	native	EN
342	Mammalia	Dasyuridae	Phascogale tapoatafa wambenger Aplin, Rhind, Ten Have & Chesser, 2015 *(South-western Brush-tailed Phascogale)*	native	CD
343	Mammalia	Delphinidae	Tursiops		
344	Mammalia	Delphinidae	Tursiops aduncus (Ehrenberg, 1833)	native	MI
345	Mammalia	Delphinidae	Tursiops truncatus truncatus Montague, 1821 *(Bottlenose Dolphin)*	native	
346	Mammalia	Felidae	Felis catus Linnaeus, 1758	alien	

347	Mammalia	Leporidae	Oryctolagus cuniculus (Linnaeus, 1758)	alien	
348	Mammalia	Macropodidae	Notamacropus irma (Jourdan, 1837) *(Western Brush Wallaby)*	native	P4
349	Mammalia	Macropodidae	Setonix brachyurus (Quoy & Gaimard, 1830) *(Quokka)*	native	VU
350	Mammalia	Muridae	Hydromys chrysogaster Geoffroy, 1804 *(Water-rat)*	native	P4
351	Mammalia	Muridae	Mus musculus Linnaeus, 1758 *(House Mouse)*	alien	
352	Mammalia	Muridae	Rattus norvegicus (Berkenhout, 1769)	alien	
353	Mammalia	Muridae	Rattus rattus (Linnaeus, 1758) *(Black Rat)*	alien	
354	Mammalia	Myrmecobiidae	Myrmecobius fasciatus Waterhouse, 1836 *(Numbat, Walpurti)*	native	EN
355	Mammalia	Otariidae	Arctocephalus tropicalis (Gray, 1872) *(Subantarctic fur-seal)*	native	VU
356	Mammalia	Otariidae	Neophoca cinerea (Peron, 1816) *(Australian Sea-lion)*	native	EN
357	Mammalia	Peramelidae	Isoodon fusciventer (Gray, 1841)	native	P4
358	Mammalia	Peramelidae	Isoodon obesulus (Shaw, 1797) *(Southern Brown Bandicoot)*	native	
359	Mammalia	Phalangeridae	Trichosurus vulpecula (Kerr, 1793)	native	
360	Mammalia	Phalangeridae	Trichosurus vulpecula hypoleucus (Wagner, 1855)	native	
361	Mammalia	Physeteridae	Physeter macrocephalus Linnaeus, 1758 *(Sperm Whale)*	native	VU
362	Mammalia	Pseudocheiridae	Pseudocheirus occidentalis (Thomas, 1888) *(Western Ringtail Possum)*	native	CR
363	Mammalia	Vespertilionidae	Chalinolobus gouldii (Gray, 1841) *(Gould's Wattled Bat)*	native	
364	Polychaeta ClaparÃ¨de, 1864	Nereididae	Neanthes vaalii Kinberg, 1866		
365	Reptilia	Agamidae	Pogona minor (Sternfeld, 1919)	native	
366	Reptilia	Agamidae	Pogona minor minor (Sternfeld, 1919) *(Western Bearded Dragon)*	native	
367	Reptilia	Chelidae	Chelodina oblonga Gray, 1841 *(Oblong turtle)*	native	
368	Reptilia	Chelidae	Pseudemydura umbrina Siebenrock, 1901 *(Western Swamp Tortoise)*	native	CR
369	Reptilia	Cheloniidae	Caretta caretta Linnaeus, 1758 *(Loggerhead Turtle)*	native	EN
370	Reptilia	Cheloniidae	Chelonia mydas (Linnaeus, 1758) *(Green Turtle)*	native	VU
371	Reptilia	Cheloniidae	Eretmochelys imbricata (Linnaeus, 1766) *(Hawksbill Turtle)*	native	VU
372	Reptilia	Dermochelyidae	Dermochelys coriacea (Vandelli, 1761) *(Leatherback Turtle)*	native	VU
373	Reptilia	Diplodactylidae	Diplodactylus polyophthalmus GÃ¼nther, 1867 *(Spotted Sandplain Gecko)*	native	
374	Reptilia	Elapidae	Brachyurophis semifasciatus (GÃ¼nther, 1863) *(Southern Shovel-nosed Snake)*	native	
375	Reptilia	Elapidae	Demansia reticulata (Gray, 1842) *(Reticulated Whipsnake)*		
376	Reptilia	Elapidae	Narophis bimaculatus (A.M.C. DumÃ©ril, Bibron & A. DumÃ©ril, 1854) *(Black-naped Burrowing Snake)*		
377	Reptilia	Elapidae	Neelaps calonotos (A.M.C. DumÃ©ril, Bibron & A. DumÃ©ril, 1854) *(Black-striped Snake)*	native	P3
378	Reptilia	Elapidae	Pseudonaja affinis Gunther, 1872	native	
379	Reptilia	Elapidae	Pseudonaja affinis affinis GÃ¼nther, 1872 *(Dugite)*	native	
380	Reptilia	Elapidae	Pseudonaja affinis tanneri (Worrell, 1961) *(Pygmy Dugite)*	native	P4
381	Reptilia	Gekkonidae	Christinus marmoratus (Gray, 1845)	native	
382	Reptilia	Pygopodidae	Aprasia repens (Fry, 1914)	native	
383	Reptilia	Pygopodidae	Lialis burtonis Gray, 1835	native	
384	Reptilia	Scincidae	Cryptoblepharus buchananii (Gray, 1838) *(Buchanan's Snake-eyed Skink)*	native	
385	Reptilia	Scincidae	Cryptoblepharus plagiocephalus	native	
386	Reptilia	Scincidae	Ctenotus australis (Gray, 1838)	native	
387	Reptilia	Scincidae	Ctenotus fallens Storr, 1974	native	
388	Reptilia	Scincidae	Ctenotus gemmula Storr, 1974 *(Jewelled South-west Ctenotus (Swan Coastal Plain subpop P3))*	native	Parent of conservation listed taxa

389	Reptilia	Scincidae	Cyclodomorphus celatus Shea & Miller, 1995 *(Western Slender Blue-tongue)*	native	
390	Reptilia	Scincidae	Hemiergis quadrilineata (Dumeril & Bibron, 1839)	native	
391	Reptilia	Scincidae	Hemiergis quadrilineatus (Dumeril, Shaw & Bibron, 1839)	native	
392	Reptilia	Scincidae	Lerista elegans (Gray, 1845)	native	
393	Reptilia	Scincidae	Lerista lineata Bell, 1883 *(Perth Slider)*	native	P3
394	Reptilia	Scincidae	Lerista lineopunctulata (Dumeril & Bibron, 1839) *(Line-spotted Robust Slider)*	native	
395	Reptilia	Scincidae	Lerista praepedita (Boulenger, 1987) *(West Coast Worm-slider)*	native	
396	Reptilia	Scincidae	Menetia greyii Gray, 1845	native	
397	Reptilia	Scincidae	Morethia obscura (Storr, 1973)	native	
398	Reptilia	Scincidae	Tiliqua rugosa (Gray, 1825)	native	
399	Reptilia	Scincidae	Tiliqua rugosa rugosa (Gray, 1825) *(Bobtail)*	native	
400	Reptilia	Typhlopidae Merrem, 1820	Anilios australis Gray, 1845 *(Southern Blind Snake)*	native	
401	Reptilia	Varanidae	Varanus gouldii (Gray, 1838) *(Bungarra or Sand Goanna, Bungarra or Sand Monitor)*	native	
402	Reptilia	Varanidae	Varanus tristis (Schlegel, 1839)	native	

Bacteria

403	Cyanophyceae	Nostocaceae Eichler	Nostoc commune Bornet & Flahault	native	
404	Cyanophyceae	Oscillatoriaceae Engl.	Oscillatoria Vaucher ex Gomont		

Chromista

405	Coscinodiscophyceae	Melosiraceae	Melosira moniliformis C.Agardh	mixed	
406	Phaeophyceae	Ectocarpaceae	Ectocarpus siliculosus (Dillwyn) Lyngb.	native	
407	Phaeophyceae	Sargassaceae KÃ¼tz.	Sirophysalis trinodis (Forssk.) KÃ¼tz.	native	
408	Phaeophyceae	Sphacelariaceae Decne.	Sphacelaria tribuloides Menegh.	native	

Fungi

409	Agaricomycetes	None	Heterorepetobasidium Chee J. Chen & Oberw.	uncertain	
410	Agaricomycetes	None	Purpureocorticium Sheng H.Wu	uncertain	
411	Agaricomycetes	Auriculariaceae Fr.	Eichleriella Bres.		
412	Agaricomycetes	Auriculariaceae Fr.	Exidiopsis (Bref.) MÃ¶ller		
413	Agaricomycetes	Corticiaceae	Dendrothele incrustans (P.A.Lemke) P.A.Lemke	native	
414	Agaricomycetes	Corticiaceae	Kurtia argillacea (Bres.) Karasinski	native	
415	Agaricomycetes	Exidiaceae	Basidiodendron caesiocinereum (HÃ¶hn. & Litsch.) Luck-Allen	native	
416	Agaricomycetes	Exidiaceae	Exidia glandulosa (Bull.) Fr.	uncertain	
417	Agaricomycetes	Ganodermataceae Donk	Ganoderma australe (Fr.) Pat.	native	
418	Agaricomycetes	Gomphaceae Donk	Ramaria Bonord.		
419	Agaricomycetes	Hydnodontaceae JÃ¼lich	Trechispora P.Karst.		
420	Agaricomycetes	Hysterangiaceae E.Fisch.	Hysterangium Vittad.		
421	Agaricomycetes	Irpicaceae	Meruliopsis Bondartsev	uncertain	
422	Agaricomycetes	Meruliaceae Rea	Allophlebia ludoviciana (Burt) C.R.S.de Lira, Gibertoni & K.H.Larss	alien	
423	Agaricomycetes	Meruliaceae Rea	Phlebia Fr.		
424	Agaricomycetes	Meruliaceae Rea	Phlebia rufa (Pers.) M.P.Christ.	native	
425	Agaricomycetes	Meruliaceae Rea	Phlebia subceracea (Wakef.) Nakasone	native	
426	Agaricomycetes	Meruliaceae Rea	Vitreoporus dichrous (Fr.) Zmitr.	uncertain	
427	Agaricomycetes	Phallaceae Corda	Clathrus ruber Pers.	native	
428	Agaricomycetes	Phallaceae Corda	Colus pusillus (Berk.) Reichardt	native	
429	Agaricomycetes	Phallaceae Corda	Ileodictyon gracile Berk.	native	
430	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Ceriporia Donk		
431	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Ceriporia tarda (Berk.) Ginns	native	

432	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Phanerochaete aculeata Hallenb.	native	
433	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Phanerochaete luteoaurantiaca (Wakef.) Burds.	native	
434	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Phanerochaete sordida (P.Karst.) J.Erikss. & Ryvarden	native	
435	Agaricomycetes	Phanerochaetaceae JÃ¼lich	Rhizochaete Gresl., Nakasone & Rajchenb.		
436	Agaricomycetes	Polyporaceae Corda	Macrohyporia dictyopora (Cooke) I.Johans. & Ryvarden	native	
437	Agaricomycetes	Polyporaceae Corda	Perenniporia Murrill		
438	Agaricomycetes	Polyporaceae Corda	Phaeotrametes decipiens (Berk.) J.E.Wright	native	
439	Agaricomycetes	Polyporaceae Corda	Poria Adans.		
440	Agaricomycetes	Polyporaceae Corda	Skeletocutis amorpha (Fr.) Kotl. & Pouzar	native	
441	Agaricomycetes	Polyporaceae Corda	Trametes coccinea (Fr.) Hai J.Li & S.H.He	native	
442	Agaricomycetes	Pycnoporellaceae Audet	Crustoderma Parmasto		
443	Agaricomycetes	Steccherinaceae	Steccherinum ochraceum (J.F.Gmel.) Gray	native	
444	Agaricomycetes	Thelephoraceae Chevall.	Pseudotomentella larsenii KÃµljalg & Dunstan	native	
445	Agaricomycetes	Thelephoraceae Chevall.	Tomentella Pat.		
446	Agaricomycetes	Thelephoraceae Chevall.	Tomentellopsis echinospora (Ellis) Hjortstam	native	
447	Agaricomycetes	Xenasmataceae Oberw.	Xenasma rimicola (P.Karst.) Donk	native	
448	Ascomycetes	Morchellaceae	Morchella elata Fr.	alien	
449	Ascomycetes	Morchellaceae	Morchella rufobrunnea GuzmÃ¡n & F. Tapia	alien	
450	Ascomycetes	Pezizaceae Dumort.	Hydnoplicata Gilkey		
451	Ascomycetes	Pezizaceae Dumort.	Peziza moravecii (Svrcek) Donadini	native	
452	Ascomycetes	Pezizaceae Dumort.	Peziza repanda Fr.	native	
453	Ascomycetes	Pezizaceae Dumort.	Peziza tenacella W.Phillips	native	
454	Ascomycetes	Pezizaceae Dumort.	Plicaria Fuckel	uncertain	
455	Ascomycetes	Pezizaceae Dumort.	Ruhlandiella Henn.	uncertain	
456	Ascomycetes	Pyronemataceae Corda	Anthracobia melaloma (Alb. & Schwein.) Arnould	native	
457	Ascomycetes	Pyronemataceae Corda	Anthracobia muelleri (Berk.) Rifai	native	
458	Ascomycetes	Pyronemataceae Corda	Pulvinula archeri (Berk.) Rifai	native	
459	Ascomycetes	Pyronemataceae Corda	Pyronema omphalodes (Bull.) Fuckel	native	
460	Basidiomycetes	Agaricaceae Chevall.	Agaricus campestris L.	native	
461	Basidiomycetes	Agaricaceae Chevall.	Agaricus rotalis K.R.Peterson, Desjardin & Hemmes	native	
462	Basidiomycetes	Agaricaceae Chevall.	Agaricus subrufescens Peck	native	
463	Basidiomycetes	Agaricaceae Chevall.	Bovista pulyuggeodes Grgur.	native	
464	Basidiomycetes	Agaricaceae Chevall.	Calvatia fusca (G.Cunn.) Grgur.	native	
465	Basidiomycetes	Agaricaceae Chevall.	Cyathus striatus (Huds.) Willd.	native	
466	Basidiomycetes	Agaricaceae Chevall.	Lepiota (Pers.) Gray		
467	Basidiomycetes	Agaricaceae Chevall.	Lepiota booloola Grgur.	native	
468	Basidiomycetes	Agaricaceae Chevall.	Lepiota exocarpi Cleland	native	
469	Basidiomycetes	Agaricaceae Chevall.	Leucoagaricus meleagris (Gray) Singer	native	
470	Basidiomycetes	Agaricaceae Chevall.	Leucocoprinus birnbaumii (Corda) Singer	alien	
471	Basidiomycetes	Agaricaceae Chevall.	Lycoperdon Pers.		
472	Basidiomycetes	Agaricaceae Chevall.	Panaeolina foenisecii (Pers.) Maire	native	
473	Basidiomycetes	Amanitaceae Pouzar	Amanita Pers.		
474	Basidiomycetes	Amanitaceae Pouzar	Amanita basiorubra O.K.Mill.	native	
475	Basidiomycetes	Amanitaceae Pouzar	Amanita brunneola E.M.Davison & Guistiniano	native	P2
476	Basidiomycetes	Amanitaceae Pouzar	Amanita conicobulbosa Cleland	native	
477	Basidiomycetes	Amanitaceae Pouzar	Amanita drummondii E.M.Davison	native	P3
478	Basidiomycetes	Amanitaceae Pouzar	Amanita fibrillopes O.K.Mill.	native	P3
479	Basidiomycetes	Amanitaceae Pouzar	Amanita preissii (Fr.) Sacc.	native	P3
480	Basidiomycetes	Amanitaceae Pouzar	Amanita wadjukiorum E.M.Davison	native	P3
481	Basidiomycetes	Amanitaceae Pouzar	Amanita xanthocephala (Berk.) Reid & Hilton	native	
482	Basidiomycetes	Amanitaceae Pouzar	Limacella pitereka Grgur.	native	
483	Basidiomycetes	Auriscalpiaceae Maas Geest.	Lentinellus pulvinulus (Berk.) Pegler	native	
484	Basidiomycetes	Bolbitiaceae Singer	Bolbitius titubans (Bull.) Fr.	native	
485	Basidiomycetes	Bolbitiaceae Singer	Bolbitius titubans (Bull.) Fr. var. titubans	native	

486	Basidiomycetes	Bolbitiaceae Singer	Bolbitius titubans var. olivaceus (Gillet) Arnolds	native	
487	Basidiomycetes	Bolbitiaceae Singer	Conocybe apala (Fr.) Arnolds	native	
488	Basidiomycetes	Boletaceae Chevall.	Boletus L.		
489	Basidiomycetes	Boletaceae Chevall.	Boletus prolinius Grgur.	native	
490	Basidiomycetes	Boletaceae Chevall.	Phylloporus clelandii Watling	native	
491	Basidiomycetes	Boletaceae Chevall.	Tylopilus fuscobrunneus Watling	native	
492	Basidiomycetes	Botryobasidiaceae JÃ¼lich	Botryobasidium Donk		
493	Basidiomycetes	Botryobasidiaceae JÃ¼lich	Botryobasidium aureum Parmasto	native	
494	Basidiomycetes	Botryobasidiaceae JÃ¼lich	Botryobasidium subcoronatum (HÃ¶hn. & Litsch.) Donk	native	
495	Basidiomycetes	Coniophoraceae Ulbr.	Coniophora olivacea (Fr.) P.Karst.	native	
496	Basidiomycetes	Coniophoraceae Ulbr.	Coniophora puteana (Schumach.) P.Karst.	native	
497	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius (Pers.) Gray		
498	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius archeri Berk.	native	
499	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius ardesiacus Gasparini	native	
500	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius clelandii A.H.Sm.	native	
501	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius ochraceofulvus Cleland	native	
502	Basidiomycetes	Cortinariaceae Pouzar	Cortinarius rotundisporus Cheel & Cleland	native	
503	Basidiomycetes	Cortinariaceae Pouzar	Descolea Singer		
504	Basidiomycetes	Crepidotaceae Singer	Crepidotus (Fr.) Staude		
505	Basidiomycetes	Crepidotaceae Singer	Crepidotus nephrodes (Berk. & M.A.Curtis) Sacc.	native	
506	Basidiomycetes	Crepidotaceae Singer	Crepidotus prostratus Cleland	native	
507	Basidiomycetes	Dacrymycetaceae J.SchrÃ¶t.	Calocera (Fr.) Fr.		
508	Basidiomycetes	Entolomataceae Kotl. & Pouzar	Clitopilus hobsonii (Berk.) P.D.Orton	native	
509	Basidiomycetes	Gloeocystidiellaceae	Gloeocystidiellum Donk		
510	Basidiomycetes	Hydnaceae Chevall.	Clavulina coralloides (L.) J.SchrÃ¶t.	uncertain	
511	Basidiomycetes	Hydnaceae Chevall.	Clavulina vinaceocervina (Cleland) Corner	native	
512	Basidiomycetes	Hydnaceae Chevall.	Sistotrema Fr.		
513	Basidiomycetes	Hydnangiaceae GÃ¤um. & C.W.Dodge	Laccaria canaliculata (Sacc.) Massee		
514	Basidiomycetes	Hydnangiaceae GÃ¤um. & C.W.Dodge	Laccaria lateritia MalenÃ§on	native	
515	Basidiomycetes	Hygrophoraceae Lotsy	Hygrocybe (Fr.) P.Kumm.		
516	Basidiomycetes	Hygrophoropsidaceae KÃ¼hner	Leucogyrophana pseudomollusca (Parmasto) Parmasto	native	
517	Basidiomycetes	Hymenochaetaceae Donk	Fuscoporia Murrill	uncertain	
518	Basidiomycetes	Hymenochaetaceae Donk	Tubulicrinis calothrix (Pat.) Donk	native	
519	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe (Fr.) Fr.		
520	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe clypeata Matheny & Bougher	native	
521	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe froudistii Matheny & Bougher	native	
522	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe rufuloides Bon	alien	
523	Basidiomycetes	Inocybaceae JÃ¼lich	Inocybe violaceocaulis Matheny & Bougher	native	
524	Basidiomycetes	Inocybaceae JÃ¼lich	Mallocybe isabellina (Matheny & Bougher) Matheny & Esteve-Rav.	native	
525	Basidiomycetes	Inocybaceae JÃ¼lich	Pseudosperma fissuratum (Matheny & Bougher) Matheny & Esteve-Rav.	native	
526	Basidiomycetes	Lachnocladiaceae	Dichostereum pallescens (Schwein.) Boidin & Lanq.	native	
527	Basidiomycetes	Lachnocladiaceae	Dichostereum rhodosporum (Wakef.) Boidin & Lanq.	native	
528	Basidiomycetes	Marasmiaceae KÃ¼hner	Campanella gregaria Bougher	native	
529	Basidiomycetes	Marasmiaceae KÃ¼hner	Gymnopus confluens (Pers.) AntonÃn, Halling & Noordel.		
530	Basidiomycetes	Marasmiaceae KÃ¼hner	Hydropus KÃ¼hner ex Singer	uncertain	
531	Basidiomycetes	Marasmiaceae KÃ¼hner	Omphalotus nidiformis (Berk.) O.K.Mill.	native	
532	Basidiomycetes	Mycenaceae Overeem	Hemimycena Singer		
533	Basidiomycetes	Mycenaceae Overeem	Mycena (Pers.) Roussel		
534	Basidiomycetes	Mycenaceae Overeem	Mycena carmeliana Grgur.	native	
535	Basidiomycetes	Mycenaceae Overeem	Mycena nargan Grgur.	native	

536	Basidiomycetes	Omphalotaceae Bres.	Rhodocollybia Singer		
537	Basidiomycetes	Paxillaceae Lotsy	Hydnomerulius pinastri (Fr.) Jarosch & Besl	native	
538	Basidiomycetes	Peniophoraceae	Gloiothele globosa Sheng H.Wu	uncertain	
539	Basidiomycetes	Peniophoraceae	Peniophora Cooke		
540	Basidiomycetes	Peniophoraceae	Scytinostroma duriusculum (Berk. & Broome) Donk	native	
541	Basidiomycetes	Physalacriaceae Corner	Armillaria luteobubalina Watling & Kile	native	
542	Basidiomycetes	Physalacriaceae Corner	Xerula atrocaerulea R.H.Petersen & Bougher	native	
543	Basidiomycetes	Physalacriaceae Corner	Xerula mundroola (Grgur.) R.H.Petersen	native	
544	Basidiomycetes	Pleurotaceae KÃ¼hner	Hohenbuehelia Schulzer		
545	Basidiomycetes	Pleurotaceae KÃ¼hner	Hohenbuehelia bingarra Grgur.	native	
546	Basidiomycetes	Pleurotaceae KÃ¼hner	Hohenbuehelia petaloides (Bull.) Schulzer	native	
547	Basidiomycetes	Pleurotaceae KÃ¼hner	Pleurotus australis (Cooke & Massee) Sacc.	native	
548	Basidiomycetes	Pluteaceae Kotl. & Pouzar	Pluteus cervinus (Schaeff.) P.Kumm.	native	
549	Basidiomycetes	Pluteaceae Kotl. & Pouzar	Pluteus romellii (Britzelm.) Sacc.	native	
550	Basidiomycetes	Pluteaceae Kotl. & Pouzar	Volvopluteus gloiocephalus (DC.) Vizzini, Contu & Justo	native	
551	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Candolleomyces D.WÃ¤cht. & A.Melzer		
552	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinellus pyrrhanthes (Romagn.) Redhead, Vilgalys & Moncalvo	native	
553	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinellus truncorum (Scop.) Redhead, Vilgalys & Moncalvo	native	
554	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinellus velatopruinatus (Bender) Redhead, Vilgalys & Moncalvo	native	
555	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinopsis P.Karst.		
556	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Coprinopsis lagopus (Fr.) Redhead, Vilgalys & Moncalvo	native	
557	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Panaeolus papilionaceus (Bull.) QuÃ©l.	native	
558	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Parasola auricoma (Pat.) Redhead, Vilgalys & Hopple	native	
559	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Parasola hercules (UljÃ© & Bas) Redhead, Vilgalys & Hopple	native	
560	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Psathyrella (Fr.) QuÃ©l.		
561	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Psathyrella bipellis (QuÃ©l.) A.H.Sm.	native	
562	Basidiomycetes	Psathyrellaceae Vilgalys, Moncalvo & Redhead	Psathyrella piluliformis (Bull.) P.D.Orton		
563	Basidiomycetes	Radulomycetaceae Leal-Dutra, Dentinger & G.W.Griff.	Aphanobasidium gaspesicum (Liberta) JÃ¼lich	native	
564	Basidiomycetes	Rickenellaceae Vizzini	Odonticium septocystidia (Burt) Zmitr. & Spirin	native	
565	Basidiomycetes	Rickenellaceae Vizzini	Rickenella Raithelh.		
566	Basidiomycetes	Russulaceae Lotsy	Russula erumpens Cleland & Cheel	native	
567	Basidiomycetes	Russulaceae Lotsy	Russula marangania Grgur.	native	
568	Basidiomycetes	Schizophyllaceae	Schizophyllum commune Fr.	native	
569	Basidiomycetes	Schizoporaceae JÃ¼lich	Hyphodontia J.Erikss.		
570	Basidiomycetes	Schizoporaceae JÃ¼lich	Xylodon (Pers.) Fr.		
571	Basidiomycetes	Sclerodermataceae Corda	Pisolithus marmoratus (Berk.) E.Fisch.	native	
572	Basidiomycetes	Sclerodermataceae Corda	Pisolithus microcarpus (Cooke & Massee) G.Cunn.	native	
573	Basidiomycetes	Sclerodermataceae Corda	Scleroderma Pers.		
574	Basidiomycetes	Stephanosporaceae Oberw. & E.Horak	Lindtneria chordulata (D.P.Rogers) Hjortstam	native	
575	Basidiomycetes	Stereaceae PilÃ¡t	Stereum illudens Berk.	native	
576	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Agrocybe pediades (Fr.) Fayod	native	
577	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Gymnopilus allantopus (Berk.) Pegler	native	
578	Basidiomycetes	Strophariaceae Singer &	Gymnopilus crociphyllus (Sacc.) Pegler	native	

		A.H.Sm.			
579	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Gymnopilus perplexus B.J.Rees	native	
580	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Leratiomyces ceres (Cooke & Massee) Spooner & Bridge	uncertain	
581	Basidiomycetes	Strophariaceae Singer & A.H.Sm.	Pholiota communis (Cleland & Cheel) Grgur.	native	
582	Basidiomycetes	Tapinellaceae C.Hahn	Tapinella panuoides (Fr.) E.-J.Gilbert	native	
583	Basidiomycetes	Tricholomataceae Pouzar	Clitocybe (Fr.) Staude		
584	Basidiomycetes	Tricholomataceae Pouzar	Clitocybe brunneoceracea Cleland	native	
585	Basidiomycetes	Tricholomataceae Pouzar	Melanoleuca exscissa (Fr.) Singer	native	
586	Basidiomycetes	Tricholomataceae Pouzar	Melanoleuca fusca (Cleland) Grgur.	native	
587	Basidiomycetes	Tricholomataceae Pouzar	Melanoleuca tristis M.M.Moser	native	
588	Basidiomycetes	Tricholomataceae Pouzar	Resupinatus Gray		
589	Basidiomycetes	Tricholomataceae Pouzar	Resupinatus poriaeformis (Pers.) Thorn, Moncalvo & Redhead	uncertain	
590	Basidiomycetes	Tricholomataceae Pouzar	Resupinatus subapplicatus (Cleland) Grgur.	native	
591	Basidiomycetes	Tricholomataceae Pouzar	Tricholoma (Fr.) Staude		
592	Basidiomycetes	Tricholomataceae Pouzar	Tricholoma eucalypticum A.Pearson	native	
593	Basidiomycetes	Tricholomataceae Pouzar	Tricholomopsis scabra J.A.Cooper	native	
594	Basidiomycetes	Tubariaceae Vizzini	Tubaria (W.G.Sm.) Gillet		
595	Basidiomycetes	Uromycladiaceae P.Zhao & L.Cai	Uromycladium morrisii Doungsa-ard, McTaggart, Geering & R.G.Shivas	native	
596	Eurotiomycetes O.E.Erikss. & Winka	Trichocomaceae E.Fisch.	Talaromyces C.R. Benj.		
597	Geoglossomycetes	Geoglossaceae	Geoglossum cookeanum Minter & P.F.Cannon	alien	
598	Leotiomycetes	Helotiaceae Rehm	Banksiamyces toomansis (Berk. & Broome) G.W.Beaton	native	
599	Leotiomycetes	Helotiaceae Rehm	Hymenoscyphus Gray	uncertain	
600	Leotiomycetes	Hyaloscyphaceae Nannf.	Arachnopeziza aurata Fuckel	native	
601	Leotiomycetes	Hyaloscyphaceae Nannf.	Lachnum virgineum (Batsch) P.Karst.	native	
602	Leotiomycetes	Marthamycetaceae Baral, Lantz, Hustad & Minter	Propolis farinosa (Pers.) Fr.	native	
603	Leotiomycetes	Rutstroemiaceae Holst-Jensen, L.M. Kohn & T. Schumach.	Lanzia Sacc.		
604	Sordariomycetes	Coniochaetaceae	Coniochaeta (Sacc.) Cooke		
605	Sordariomycetes	Sordariaceae	Sordaria Ces. & De Not.		
606	Sordariomycetes	Xylariaceae Tul. & C.Tul.	Annulohypoxylon Y.M.Ju, J.D.Rogers & H.M.Hsieh		
607	Tremellomycetes Doweld	Tremellaceae Fr.	Tremella Pers.		

Plantae

608	Bangiophyceae	Bangiaceae	Bangia atropurpurea (Roth) C.Agardh	native	
609	Bryopsida	Fabroniaceae Schimp.	Fabronia hampeana Sond.	native	P2
610	Cycadopsida	Zamiaceae Horan.	Macrozamia riedlei (Gaudich.) C.A.Gardner	native	
611	Florideophyceae	Callithamniaceae KÃ¼tz.	Callithamnion perpusillum P.C.Silva	native	
612	Florideophyceae	Ceramiaceae Dumort.	Ceramium macilentum J.Agardh	native	
613	Florideophyceae	Colaconemataceae J.T.Harper & G.W.Saunders	Colaconema daviesii (Dillwyn) Stegenga	native	
614	Florideophyceae	Colaconemataceae J.T.Harper & G.W.Saunders	Colaconema savianum (Menegh.) R.Nielsen	native	
615	Florideophyceae	Gracilariaceae NÃ¤geli	Gracilaria transtasmanica (M.Preuss, N.Muangmai & Zuccarello) Lyra, Iha, J.M.C.Nunes & C.C.Davis	alien	
616	Florideophyceae	Lomentariaceae	Fushitsunagia catenata (Harv.) Filloramo & G.W.Saunders	alien	
617	Florideophyceae	Rhodomelaceae Horan.	Polysiphonia Grev.		
618	Liliopsida	Anarthriaceae D.F.Cutler & Airy Shaw	Lyginia barbata R.Br.	native	
619	Liliopsida	Anarthriaceae D.F.Cutler & Airy Shaw	Lyginia excelsa B.G.Briggs & L.A.S.Johnson	native	P2

620	Liliopsida	Anarthriaceae D.F.Cutler & Airy Shaw	Lyginia imberbis R.Br.	native	
621	Liliopsida	Araceae Juss.	Lazarum peltandroides (A.Hay, M.D.Barrett & R.L.Barrett) M.D.Barrett, A.Hay & Hett	native	P1
622	Liliopsida	Asparagaceae Juss.	Asparagus asparagoides (L.) Druce	alien	
623	Liliopsida	Asparagaceae Juss.	Asparagus plumosus Baker	alien	
624	Liliopsida	Asparagaceae Juss.	Dichopogon capillipes (Endl.) Brittan	native	
625	Liliopsida	Asparagaceae Juss.	Lachenalia bulbifera (Cirillo) Asch. & Graebn.	alien	
626	Liliopsida	Asparagaceae Juss.	Lachenalia mutabilis Sweet	alien	
627	Liliopsida	Asparagaceae Juss.	Laxmannia squarrosa Lindl.	native	
628	Liliopsida	Asparagaceae Juss.	Lomandra caespitosa (Benth.) Ewart *(Tufted Mat Rush)*	native	
629	Liliopsida	Asparagaceae Juss.	Lomandra micrantha (Endl.) Ewart subsp. micrantha *(Small-flower Mat Rush)*	native	
630	Liliopsida	Asparagaceae Juss.	Lomandra nigricans T.Macfarlane	native	
631	Liliopsida	Asparagaceae Juss.	Lomandra preissii (Endl.) Ewart *(Preiss' Mat Rush)*	native	
632	Liliopsida	Asparagaceae Juss.	Lomandra suaveolens (Endl.) Ewart	native	
633	Liliopsida	Asparagaceae Juss.	Sowerbaea laxiflora Lindl. *(Purple Tassels)*	native	
634	Liliopsida	Asparagaceae Juss.	Thysanotus arenarius Brittan	native	
635	Liliopsida	Asparagaceae Juss.	Thysanotus manglesianus Kunth *(Fringed Lily, Mangles' Fringed Lily)*	native	
636	Liliopsida	Asparagaceae Juss.	Thysanotus sparteus R.Br. *(Leafless Fringed Lily)*	native	
637	Liliopsida	Asparagaceae Juss.	Thysanotus thyrsoideus Baker	native	
638	Liliopsida	Asparagaceae Juss.	Thysanotus triandrus (Labill.) R.Br.	native	
639	Liliopsida	Colchicaceae DC.	Burchardia congesta Lindl.	native	
640	Liliopsida	Cyperaceae Juss.	Carex divisa Huds. *(Divided Sedge)*	alien	
641	Liliopsida	Cyperaceae Juss.	Chaetospora curvifolia R.Br.	native	
642	Liliopsida	Cyperaceae Juss.	Cyathochaeta teretifolia W.Fitzg.	native	P3
643	Liliopsida	Cyperaceae Juss.	Cyperus gymnocaulos Steud.	native	
644	Liliopsida	Cyperaceae Juss.	Cyperus tenellus L.f.	alien	
645	Liliopsida	Cyperaceae Juss.	Cyperus tenuiflorus Rottb.	alien	
646	Liliopsida	Cyperaceae Juss.	Lepidosperma Labill.		
647	Liliopsida	Cyperaceae Juss.	Lepidosperma angustatum R.Br.	native	
648	Liliopsida	Cyperaceae Juss.	Lepidosperma scabrum Nees	native	
649	Liliopsida	Cyperaceae Juss.	Mesomelaena pseudostygia (KÃ¼k.) K.L.Wilson	native	
650	Liliopsida	Cyperaceae Juss.	Morelotia octandra (Nees) R.L.Barrett & J.J.Bruhl	native	
651	Liliopsida	Cyperaceae Juss.	Schoenus capillifolius D.A.Cooke	native	P3
652	Liliopsida	Dasypogonaceae Dumort.	Calectasia grandiflora L.Preiss *(Blue Tinsel Lily)*	native	P2
653	Liliopsida	Dioscoreaceae R.Br.	Dioscorea hastifolia Nees	native	
654	Liliopsida	Haemodoraceae R.Br.	Anigozanthos humilis Lindl. *(Catspaw)*	native	
655	Liliopsida	Haemodoraceae R.Br.	Anigozanthos pulcherrimus Hook.	native	
656	Liliopsida	Haemodoraceae R.Br.	Conostylis aculeata R.Br.	native	
657	Liliopsida	Haemodoraceae R.Br.	Conostylis bracteata Lindl.	native	P3
658	Liliopsida	Haemodoraceae R.Br.	Conostylis candicans Endl.	native	
659	Liliopsida	Haemodoraceae R.Br.	Conostylis setigera R.Br. subsp. setigera	native	
660	Liliopsida	Haemodoraceae R.Br.	Haemodorum laxum R.Br.	native	
661	Liliopsida	Haemodoraceae R.Br.	Haemodorum paniculatum Lindl.	native	
662	Liliopsida	Haemodoraceae R.Br.	Haemodorum spicatum R.Br.	native	
663	Liliopsida	Hemerocallidaceae R.Br.	Caesia micrantha Lindl.	native	
664	Liliopsida	Hemerocallidaceae R.Br.	Dianella revoluta R.Br. *(Blueberry Lily)*	native	
665	Liliopsida	Iridaceae Juss.	Babiana nana (Andr.) Spreng.	alien	
666	Liliopsida	Iridaceae Juss.	Freesia leichtlinii subsp. alba x leichtlinii subsp. leichtlinii		
667	Liliopsida	Iridaceae Juss.	Gladiolus caryophyllaceus (Burm.f.) Poir. *(Wild Gladiolus)*	alien	
668	Liliopsida	Iridaceae Juss.	Ixia fuscocitrina Redoute	alien	
669	Liliopsida	Iridaceae Juss.	Ixia polystachya L.	alien	
670	Liliopsida	Iridaceae Juss.	Orthrosanthus laxus (Endl.) Benth.	native	
			Orthrosanthus laxus (Endl.) Benth. var. laxus *(Morning*		

671	Liliopsida	Iridaceae Juss.	*Iris)*	native	
672	Liliopsida	Iridaceae Juss.	Patersonia occidentalis R.Br.	native	
673	Liliopsida	Iridaceae Juss.	Romulea rosea var. australis (Ewart) M.P.de Vos *(Guildford Grass)*	alien	
674	Liliopsida	Juncaceae Juss.	Juncus kraussii subsp. australiensis (Buchenau) Snogerup	native	
675	Liliopsida	Juncaceae Juss.	Juncus pallidus R.Br.	native	
676	Liliopsida	Orchidaceae Juss.	Caladenia arenicola Hopper & A.P.Br. *(Carousel Spider Orchid)*	native	
677	Liliopsida	Orchidaceae Juss.	Caladenia discoidea Lindl.	native	
678	Liliopsida	Orchidaceae Juss.	Caladenia flava R.Br. *(Cowslip Orchid)*	native	
679	Liliopsida	Orchidaceae Juss.	Caladenia flava R.Br. subsp. flava	native	
680	Liliopsida	Orchidaceae Juss.	Caladenia huegelii Rchb.f. *(Grand Spider Orchid)*	native	CR
681	Liliopsida	Orchidaceae Juss.	Caladenia latifolia R.Br.	native	
682	Liliopsida	Orchidaceae Juss.	Caladenia longicauda subsp. calcigena Hopper & A.P.Br.	native	
683	Liliopsida	Orchidaceae Juss.	Caladenia x spectabilis Hopper & A.P.Br.	native	
684	Liliopsida	Orchidaceae Juss.	Corysanthes recurva (D.L.Jones) D.L.Jones & M.A.Clem.	native	
685	Liliopsida	Orchidaceae Juss.	Cyanicula gemmata (Lindl.) Hopper & A.P.Br.	native	
686	Liliopsida	Orchidaceae Juss.	Cyanicula ixioides (Lindl.) Hopper & A.P.Br.	native	Parent of conservation listed taxa
687	Liliopsida	Orchidaceae Juss.	Diuris magnifica D.L.Jones	native	
688	Liliopsida	Orchidaceae Juss.	Elythranthera brunonis (Endl.) A.S.George	native	
689	Liliopsida	Orchidaceae Juss.	Eriochilus dilatatus subsp. multiflorus (Lindl.) Hopper & A.P.Br.	native	
690	Liliopsida	Orchidaceae Juss.	Leporella fimbriata (Lindl.) A.S.George	native	
691	Liliopsida	Orchidaceae Juss.	Leptoceras menziesii (R.Br.) Lindl.	native	
692	Liliopsida	Orchidaceae Juss.	Prasophyllum fimbria Rchb.f.	native	
693	Liliopsida	Orchidaceae Juss.	Prasophyllum plumiforme Fitzg.	native	
694	Liliopsida	Orchidaceae Juss.	Pterostylis scabra Lindl.	native	
695	Liliopsida	Orchidaceae Juss.	Pterostylis vittata Lindl. *(Banded Greenhood)*	native	
696	Liliopsida	Orchidaceae Juss.	Thelymitra fuscolutea R.Br. *(Chestnut Sun Orchid)*	native	
697	Liliopsida	Orchidaceae Juss.	Thelymitra variegata (Lindl.) F.Muell. *(Queen of Sheba)*	native	CR
698	Liliopsida	Poaceae Barnhart	Aira L.		
699	Liliopsida	Poaceae Barnhart	Amphipogon turbinatus R.Br.	native	
700	Liliopsida	Poaceae Barnhart	Austrostipa elegantissima (Labill.) S.W.L.Jacobs & J.Everett	native	
701	Liliopsida	Poaceae Barnhart	Austrostipa flavescens (Labill.) S.W.L.Jacobs & J.Everett	native	
702	Liliopsida	Poaceae Barnhart	Austrostipa mundula (J.M.Black) S.W.L.Jacobs & J.Everett	native	P3
703	Liliopsida	Poaceae Barnhart	Austrostipa semibarbata (R.Br.) S.W.L.Jacobs & J.Everett	native	
704	Liliopsida	Poaceae Barnhart	Avena fatua L.	alien	
705	Liliopsida	Poaceae Barnhart	Briza maxima L.	alien	
706	Liliopsida	Poaceae Barnhart	Bromus diandrus Roth *(Great Brome)*	alien	
707	Liliopsida	Poaceae Barnhart	Bromus hordeaceus L.	alien	
708	Liliopsida	Poaceae Barnhart	Ehrharta calycina Sm. *(Perennial Veldt Grass)*	alien	
709	Liliopsida	Poaceae Barnhart	Ehrharta longiflora Sm.	alien	
710	Liliopsida	Poaceae Barnhart	Hordeum vulgare L. *(Barley)*	alien	
711	Liliopsida	Poaceae Barnhart	Lachnagrostis drummondiana (Steud.) S.W.L.Jacobs	native	P1
712	Liliopsida	Poaceae Barnhart	Lagurus ovatus L.	alien	
713	Liliopsida	Poaceae Barnhart	Lolium L.		
714	Liliopsida	Poaceae Barnhart	Lolium rigidum Gaudin *(Wimmera Ryegrass)*	alien	
715	Liliopsida	Poaceae Barnhart	Micraira brevis M.D.Barrett & R.L.Barrett	native	Parent of conservation listed taxa
716	Liliopsida	Poaceae Barnhart	Paspalum dilatatum Poir.	alien	
717	Liliopsida	Poaceae Barnhart	Phalaris minor Retz. *(Lesser Canary Grass)*	alien	

718	Liliopsida	Poaceae Barnhart	Rytidosperma caespitosum (Gaudich.) Connor & Edgar	native	
719	Liliopsida	Poaceae Barnhart	Rytidosperma occidentale (Vickery) Connor & Edgar	native	
720	Liliopsida	Poaceae Barnhart	Vulpia bromoides (L.) Gray	alien	
721	Liliopsida	Poaceae Barnhart	Vulpia fasciculata (Forssk.) Fritsch	alien	
722	Liliopsida	Poaceae Barnhart	Vulpia myuros (L.) C.C.Gmel.	alien	
723	Liliopsida	Potamogetonaceae Bercht. & J. Presl	Stuckenia pectinata (L.) BÃ¶rner *(Fennel Pondweed)*	native	
724	Liliopsida	Restionaceae R.Br.	Alexgeorgea nitens (Nees) L.A.S.Johnson & B.G.Briggs	native	
725	Liliopsida	Restionaceae R.Br.	Desmocladus asper (Nees) B.G.Briggs & L.A.S.Johnson	native	
726	Liliopsida	Restionaceae R.Br.	Desmocladus flexuosus (R.Br.) B.G.Briggs & L.A.S.Johnson	native	
727	Liliopsida	Restionaceae R.Br.	Hypolaena exsulca R.Br.	native	
728	Liliopsida	Restionaceae R.Br.	Lepidobolus preissianus Nees	native	
729	Liliopsida	Restionaceae R.Br.	Leptocarpus tenax (Labill.) R.Br.	native	
730	Liliopsida	Xanthorrhoeaceae Dumort.	Xanthorrhoea brunonis Endl.	native	
731	Liliopsida	Xanthorrhoeaceae Dumort.	Xanthorrhoea preissii Endl.	native	
732	Magnoliopsida	Amaranthaceae Juss.	Ptilotus drummondii (Moq.) F.Muell.	native	
733	Magnoliopsida	Apiaceae Lindl.	Daucus glochidiatus (Labill.) Fisch., C.A.Mey. & Ave-Lall. *(Australian Carrot)*	native	
734	Magnoliopsida	Apiaceae Lindl.	Eryngium pinnatifidum Bunge *(Blue Devils)*	native	
735	Magnoliopsida	Apiaceae Lindl.	Xanthosia huegelii (Benth.) Steud.	native	
736	Magnoliopsida	Araliaceae Juss.	Trachymene pilosa Sm.	native	
737	Magnoliopsida	Asteraceae Bercht. & J.Presl	Ageratina adenophora (Spreng.) R.M.King & H.Rob. *(Crofton Weed)*	alien	
738	Magnoliopsida	Asteraceae Bercht. & J.Presl	Angianthus micropodioides (Benth.) Benth.	native	P3
739	Magnoliopsida	Asteraceae Bercht. & J.Presl	Bidens pilosa L. *(Cobbler's Pegs)*	alien	
740	Magnoliopsida	Asteraceae Bercht. & J.Presl	Eclipta prostrata (L.) L.	alien	
741	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron bonariensis L.	alien	
742	Magnoliopsida	Asteraceae Bercht. & J.Presl	Erigeron canadensis L.	alien	
743	Magnoliopsida	Asteraceae Bercht. & J.Presl	Gamochaeta americana (Mill.) Wedd.	alien	
744	Magnoliopsida	Asteraceae Bercht. & J.Presl	Hypochaeris glabra L. *(Smooth Cats-ear)*	alien	
745	Magnoliopsida	Asteraceae Bercht. & J.Presl	Hypochaeris radicata L.	alien	
746	Magnoliopsida	Asteraceae Bercht. & J.Presl	Leontodon rhagadioloides (L.) Enke & Zidorn *(Cretan Weed)*	alien	
747	Magnoliopsida	Asteraceae Bercht. & J.Presl	Pithocarpa cordata (DC.) Schmidt-Leb. & R.L.Barrett	native	
748	Magnoliopsida	Asteraceae Bercht. & J.Presl	Podolepis gracilis (Lehm.) Graham	native	
749	Magnoliopsida	Asteraceae Bercht. & J.Presl	Siloxerus humifusus Labill.	native	
750	Magnoliopsida	Asteraceae Bercht. & J.Presl	Taraxacum khatoonae Abedin *(Dandelion)*	alien	
751	Magnoliopsida	Asteraceae Bercht. & J.Presl	Urospermum picroides (L.) F.W.Schmidt	alien	
752	Magnoliopsida	Asteraceae Bercht. & J.Presl	Ursinia anthemoides (L.) Poir. *(Ursinia)*	alien	
753	Magnoliopsida	Boraginaceae Juss.	Amsinckia calycina (Moris) Chater	alien	
754	Magnoliopsida	Boraginaceae Juss.	Heliotropium amplexicaule Vahl	alien	
755	Magnoliopsida	Boraginaceae Juss.	Plagiobothrys australasicus (A.DC.) I.M.Johnst.	native	
756	Magnoliopsida	Brassicaceae Burnett	Brassica x napus L.	alien	
757	Magnoliopsida	Brassicaceae Burnett	Cardamine hirsuta L.	alien	
758	Magnoliopsida	Brassicaceae Burnett	Heliophila pusilla L.f.	alien	
759	Magnoliopsida	Brassicaceae Burnett	Raphanus raphanistrum L. *(Wild Radish)*	alien	
760	Magnoliopsida	Brassicaceae Burnett	Sisymbrium irio L. *(London Rocket)*	alien	
761	Magnoliopsida	Brassicaceae Burnett	Sisymbrium orientale L. *(Indian Hedge Mustard)*	alien	
762	Magnoliopsida	Brassicaceae Burnett	Succowia balearica (L.) Medik.	alien	
763	Magnoliopsida	Campanulaceae Juss.	Lobelia tenuior R.Br.	native	
764	Magnoliopsida	Caprifoliaceae Juss.	Centranthus macrosiphon Boiss.	alien	
765	Magnoliopsida	Caryophyllaceae Juss.	Petrorhagia dubia (Raf.) G.Lopez & Romo	alien	
766	Magnoliopsida	Caryophyllaceae Juss.	Silene gallica L.	alien	
767	Magnoliopsida	Caryophyllaceae Juss.	Silene gallica L. var. gallica	alien	
768	Magnoliopsida	Caryophyllaceae Juss.	Spergula arvensis L. *(Corn Spurry)*	alien	

769	Magnoliopsida	Caryophyllaceae Juss.	Spergularia nesophila L.G.Adams	native	P3
770	Magnoliopsida	Caryophyllaceae Juss.	Stellaria media (L.) Vill. *(Chickweed)*	alien	
771	Magnoliopsida	Casuarinaceae R.Br.	Allocasuarina fraseriana (Miq.) L.A.S.Johnson	native	
772	Magnoliopsida	Casuarinaceae R.Br.	Allocasuarina humilis (Otto & A.Dietr.) L.A.S.Johnson	native	
773	Magnoliopsida	Casuarinaceae R.Br.	Casuarina glauca Spreng.	alien	
774	Magnoliopsida	Chenopodiaceae Vent.	Atriplex hypoleuca Nees	native	
775	Magnoliopsida	Chenopodiaceae Vent.	Atriplex isatidea Moq.	native	
776	Magnoliopsida	Chenopodiaceae Vent.	Atriplex patula L.	native	
777	Magnoliopsida	Chenopodiaceae Vent.	Atriplex prostrata DC. *(Hastate Orache)*	alien	
778	Magnoliopsida	Chenopodiaceae Vent.	Atriplex semibaccata R.Br. *(Berry Saltbush)*	mixed	
779	Magnoliopsida	Chenopodiaceae Vent.	Dysphania ambrosioides (L.) Mosyakin & Clemants	alien	
780	Magnoliopsida	Chenopodiaceae Vent.	Tecticornia halocnemoides (Nees) K.A.Sheph. & Paul G.Wilson subsp. halocnemoides	native	
781	Magnoliopsida	Chenopodiaceae Vent.	Tecticornia lepidosperma (Paul G.Wilson) K.A.Sheph. & Paul G.Wilson	native	
782	Magnoliopsida	Chenopodiaceae Vent.	Tecticornia pergranulata (J.M.Black) K.A.Sheph. & Paul G.Wilson	native	
783	Magnoliopsida	Convolvulaceae Juss.	Distimake dissectus (Jacq.) A.R.SimÃµes & Staples var. dissectus	alien	
784	Magnoliopsida	Convolvulaceae Juss.	Ipomoea cairica (L.) Sweet	alien	
785	Magnoliopsida	Crassulaceae J.St.-Hil.	Crassula L.		
786	Magnoliopsida	Crassulaceae J.St.-Hil.	Crassula thunbergiana Schult.	alien	
787	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia cuneiformis (Labill.) Sm.	mixed	
788	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia diamesogenos (Steud.) J.R.Wheeler	native	
789	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia hypericoides (DC.) Benth.	native	
790	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia hypericoides (DC.) Benth. subsp. hypericoides *(Yellow Buttercups)*	native	
791	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia leptotheca (J.R.Wheeler) K.R.Thiele	native	P3
792	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia stellaris Endl. *(Orange Stars)*	native	
793	Magnoliopsida	Dilleniaceae Salisb.	Hibbertia subvaginata (Steud.) F.Muell.	native	
794	Magnoliopsida	Droseraceae Salisb.	Drosera drummondii Planch.	native	
795	Magnoliopsida	Droseraceae Salisb.	Drosera erythrorhiza Lindl. *(Red Ink Sundew)*	native	
796	Magnoliopsida	Droseraceae Salisb.	Drosera pallida Lindl. *(Pale Rainbow)*	native	
797	Magnoliopsida	Droseraceae Salisb.	Drosera porrecta Lehm.	native	
798	Magnoliopsida	Droseraceae Salisb.	Drosera stolonifera Endl. *(Leafy Sundew)*	native	
799	Magnoliopsida	Ericaceae Juss.	Conostephium pendulum Benth.	native	
800	Magnoliopsida	Ericaceae Juss.	Conostephium preissii Sond.	native	
801	Magnoliopsida	Ericaceae Juss.	Leucopogon capitellatus DC.	native	
802	Magnoliopsida	Ericaceae Juss.	Needhamiella pumilio (R.Br.) L.Watson	native	
803	Magnoliopsida	Ericaceae Juss.	Styphelia macrocalyx (Sond.) F.Muell.	native	
804	Magnoliopsida	Ericaceae Juss.	Styphelia pallida (R.Br.) Spreng.	native	
805	Magnoliopsida	Ericaceae Juss.	Styphelia xerophylla (DC.) F.Muell.	native	
806	Magnoliopsida	Euphorbiaceae Juss.	Beyeria cinerea (MÃ¼ll.Arg.) Benth. subsp. cinerea	native	P3
807	Magnoliopsida	Euphorbiaceae Juss.	Euphorbia peplus L. *(Petty Spurge)*	alien	
808	Magnoliopsida	Euphorbiaceae Juss.	Monotaxis grandiflora Endl.	native	
809	Magnoliopsida	Euphorbiaceae Juss.	Ricinocarpos glaucus Endl.	native	
810	Magnoliopsida	Euphorbiaceae Juss.	Ricinocarpos tuberculatus MÃ¼ll.Arg.	native	P2
811	Magnoliopsida	Fabaceae Lindl.	Acacia applanata Maslin	native	
812	Magnoliopsida	Fabaceae Lindl.	Acacia auronitens Lindl.	native	
813	Magnoliopsida	Fabaceae Lindl.	Acacia benthamii Meisn. *(Bentham's Wattle)*	native	P2
814	Magnoliopsida	Fabaceae Lindl.	Acacia blakelyi Maiden	mixed	
815	Magnoliopsida	Fabaceae Lindl.	Acacia cyclops G.Don *(Coastal Wattle)*	native	
816	Magnoliopsida	Fabaceae Lindl.	Acacia denticulosa F.Muell. *(Sandpaper Wattle)*	native	EN
817	Magnoliopsida	Fabaceae Lindl.	Acacia ericifolia Benth.	native	
818	Magnoliopsida	Fabaceae Lindl.	Acacia horridula Meisn.	native	P3
819	Magnoliopsida	Fabaceae Lindl.	Acacia iteaphylla Benth.	alien	

820	Magnoliopsida	Fabaceae Lindl.	Acacia jibberdingensis Maiden & Blakely	native	
821	Magnoliopsida	Fabaceae Lindl.	Acacia lasiocarpa var. lasiocarpa Cockleshell Gully variant (E.A. Griffin 2039)	native	P2
822	Magnoliopsida	Fabaceae Lindl.	Acacia lateriticola Maslin	native	Parent of conservation listed taxa
823	Magnoliopsida	Fabaceae Lindl.	Acacia ligustrina Meisn.	native	
824	Magnoliopsida	Fabaceae Lindl.	Acacia microbotrya Benth. *(Manna Wattle)*	mixed	
825	Magnoliopsida	Fabaceae Lindl.	Acacia oncinophylla subsp. patulifolia R.S.Cowan & Maslin	native	P4
826	Magnoliopsida	Fabaceae Lindl.	Acacia paradoxa DC.	alien	
827	Magnoliopsida	Fabaceae Lindl.	Acacia pulchella R.Br.	mixed	
828	Magnoliopsida	Fabaceae Lindl.	Acacia pulchella var. glaberrima Meisn. *(Prickly Moses)*	native	
829	Magnoliopsida	Fabaceae Lindl.	Acacia truncata Hoffmanns.	native	
830	Magnoliopsida	Fabaceae Lindl.	Aotus cordifolia Benth.	native	
831	Magnoliopsida	Fabaceae Lindl.	Bossiaea eriocarpa Benth. *(Common Brown Pea)*	native	
832	Magnoliopsida	Fabaceae Lindl.	Daviesia angulata Lindl.	native	
833	Magnoliopsida	Fabaceae Lindl.	Daviesia decurrens Meisn.	native	
834	Magnoliopsida	Fabaceae Lindl.	Daviesia divaricata Benth. subsp. divaricata	native	
835	Magnoliopsida	Fabaceae Lindl.	Daviesia nudiflora Meisn.	native	
836	Magnoliopsida	Fabaceae Lindl.	Daviesia nudiflora Meisn. subsp. nudiflora	native	
837	Magnoliopsida	Fabaceae Lindl.	Daviesia nudiflora subsp. drummondii (Meisn.) Crisp	native	P3
838	Magnoliopsida	Fabaceae Lindl.	Daviesia triflora Crisp	native	
839	Magnoliopsida	Fabaceae Lindl.	Euchilopsis linearis (Benth.) F.Muell. *(Swamp Pea)*	native	
840	Magnoliopsida	Fabaceae Lindl.	Eutaxia virgata Benth.	native	
841	Magnoliopsida	Fabaceae Lindl.	Gastrolobium capitatum (Benth.) G.Chandler & Crisp	native	
842	Magnoliopsida	Fabaceae Lindl.	Gompholobium aristatum Benth.	native	
843	Magnoliopsida	Fabaceae Lindl.	Gompholobium tomentosum Labill. *(Hairy Yellow Pea)*	native	
844	Magnoliopsida	Fabaceae Lindl.	Hardenbergia comptoniana (Andrews) Benth. *(Native Wisteria)*	native	
845	Magnoliopsida	Fabaceae Lindl.	Hovea trisperma Benth. var. trisperma *(Common Hovea)*	native	
846	Magnoliopsida	Fabaceae Lindl.	Isotropis cuneifolia (Sm.) Heynh. *(Granny Bonnets)*	native	
847	Magnoliopsida	Fabaceae Lindl.	Isotropis cuneifolia (Sm.) Heynh. subsp. cuneifolia	native	
848	Magnoliopsida	Fabaceae Lindl.	Jacksonia furcellata (Bonpl.) DC.	native	
849	Magnoliopsida	Fabaceae Lindl.	Jacksonia racemosa Meisn.	native	
850	Magnoliopsida	Fabaceae Lindl.	Jacksonia sericea Benth. *(Waldjumi)*	native	P4
851	Magnoliopsida	Fabaceae Lindl.	Kennedia prostrata R.Br.	native	
852	Magnoliopsida	Fabaceae Lindl.	Lotus angustissimus L. *(Narrowleaf Trefoil)*	alien	
853	Magnoliopsida	Fabaceae Lindl.	Lupinus angustifolius L. *(Narrowleaf Lupin)*	alien	
854	Magnoliopsida	Fabaceae Lindl.	Lupinus cosentinii Guss.	alien	
855	Magnoliopsida	Fabaceae Lindl.	Medicago polymorpha L. *(Burr Medic)*	alien	
856	Magnoliopsida	Fabaceae Lindl.	Melilotus indicus (L.) All.	alien	
857	Magnoliopsida	Fabaceae Lindl.	Paraserianthes lophantha (Willd.) I.C.Nielsen subsp. lophantha	mixed	
858	Magnoliopsida	Fabaceae Lindl.	Robinia pseudoacacia L.	alien	
859	Magnoliopsida	Fabaceae Lindl.	Templetonia retusa (Vent.) R.Br. *(Cockies Tongues)*	native	
860	Magnoliopsida	Fabaceae Lindl.	Trifolium angustifolium L. var. angustifolium	alien	
861	Magnoliopsida	Fabaceae Lindl.	Trifolium campestre Schreb.	alien	
862	Magnoliopsida	Fabaceae Lindl.	Trifolium campestre Schreb. var. campestre	alien	
863	Magnoliopsida	Fabaceae Lindl.	Trifolium dubium Sibth.	alien	
864	Magnoliopsida	Fabaceae Lindl.	Trifolium glomeratum L.	alien	
865	Magnoliopsida	Fabaceae Lindl.	Trifolium ornithopodioides L. *(Birdsfoot Fenugreek)*	alien	
866	Magnoliopsida	Fabaceae Lindl.	Vicia sativa L.	alien	
867	Magnoliopsida	Fabaceae Lindl.	Viminaria juncea (Schrad. & J.C.Wendl.) Hoffmanns.	native	
868	Magnoliopsida	Gentianaceae Juss.	Schenkia australis (R.Br.) G.Mans.	native	
869	Magnoliopsida	Geraniaceae Juss.	Erodium cicutarium (L.) L'Her.	alien	

870	Magnoliopsida	Geraniaceae Juss.	Geranium molle L.	alien	
871	Magnoliopsida	Goodeniaceae R.Br.	Dampiera triloba Lindl.	native	P3
872	Magnoliopsida	Goodeniaceae R.Br.	Lechenaultia floribunda Benth.	native	
873	Magnoliopsida	Goodeniaceae R.Br.	Scaevola anchusifolia Benth. *(Silky Scaevola)*	native	
874	Magnoliopsida	Goodeniaceae R.Br.	Scaevola canescens Benth.	native	
875	Magnoliopsida	Goodeniaceae R.Br.	Scaevola nitida R.Br.	native	
876	Magnoliopsida	Hypericaceae Juss.	Hypericum canariense L.	alien	
877	Magnoliopsida	Lamiaceae Martinov	Dasymalla axillaris Endl.	native	CR
878	Magnoliopsida	Lamiaceae Martinov	Dicrastylis micrantha Munir	native	P3
879	Magnoliopsida	Lamiaceae Martinov	Hemiandra linearis Benth.	native	
880	Magnoliopsida	Lauraceae Juss.	Cassytha racemosa Nees	native	
881	Magnoliopsida	Lentibulariaceae Rich.	Utricularia multifida R.Br.	native	
882	Magnoliopsida	Loranthaceae Juss.	Nuytsia floribunda (Labill.) G.Don	native	
883	Magnoliopsida	Macarthuriaceae Christenh.	Macarthuria australis Endl.	native	
884	Magnoliopsida	Malvaceae Juss.	Lasiopetalum membranaceum (Steud.) Benth.	native	P3
885	Magnoliopsida	Malvaceae Juss.	Malva parviflora L. *(Marshmallow)*	alien	
886	Magnoliopsida	Malvaceae Juss.	Pavonia hastata Cav.	alien	
887	Magnoliopsida	Malvaceae Juss.	Seringia integrifolia (Steud.) F.Muell. *(Common firebush)*	native	
888	Magnoliopsida	Malvaceae Juss.	Sida fallax Walp.	alien	
889	Magnoliopsida	Malvaceae Juss.	Thomasia petalocalyx F.Muell.	native	
890	Magnoliopsida	Malvaceae Juss.	Thomasia pygmaea (Turcz.) Benth. *(Tiny Thomasia)*	native	P3
891	Magnoliopsida	Moraceae Gaudich.	Ficus carica L.	alien	
892	Magnoliopsida	Myrtaceae Juss.	Agonis flexuosa (Willd.) Sweet	mixed	
893	Magnoliopsida	Myrtaceae Juss.	Astartea fascicularis (Labill.) DC.	native	
894	Magnoliopsida	Myrtaceae Juss.	Calothamnus gilesii F.Muell.	native	
895	Magnoliopsida	Myrtaceae Juss.	Calothamnus graniticus Hawkeswood	mixed	Parent of conservation listed taxa
896	Magnoliopsida	Myrtaceae Juss.	Calothamnus graniticus subsp. leptophyllus (Benth.) Hawkeswood	native	P4
897	Magnoliopsida	Myrtaceae Juss.	Calothamnus macrocarpus Hawkeswood	native	P2
898	Magnoliopsida	Myrtaceae Juss.	Calothamnus quadrifidus R.Br. subsp. quadrifidus *(One-sided Bottlebrush)*	mixed	
899	Magnoliopsida	Myrtaceae Juss.	Calytrix angulata Lindl.	native	
900	Magnoliopsida	Myrtaceae Juss.	Calytrix flavescens A.Cunn.	native	
901	Magnoliopsida	Myrtaceae Juss.	Calytrix fraseri A.Cunn.	native	
902	Magnoliopsida	Myrtaceae Juss.	Corymbia calophylla (Lindl.) K.D.Hill & L.A.S.Johnson	native	
903	Magnoliopsida	Myrtaceae Juss.	Darwinia citriodora (Endl.) Benth. *(Lemon-scented Darwinia)*	native	
904	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia Benth. *(Caesia)*	native	Parent of conservation listed taxa
905	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia Benth. subsp. caesia	native	P4
906	Magnoliopsida	Myrtaceae Juss.	Eucalyptus caesia subsp. magna Brooker & Hopper	native	P4
907	Magnoliopsida	Myrtaceae Juss.	Eucalyptus cladocalyx subsp. petila D.Nicolle	alien	
908	Magnoliopsida	Myrtaceae Juss.	Eucalyptus educta L.A.S.Johnson & K.D.Hill	native	P2
909	Magnoliopsida	Myrtaceae Juss.	Eucalyptus foecunda Schauer *(Fremantle Mallee, Narrow-leaved Red Mallee)*	native	
910	Magnoliopsida	Myrtaceae Juss.	Eucalyptus foecunda Schauer subsp. foecunda	native	P4
911	Magnoliopsida	Myrtaceae Juss.	Eucalyptus gomphocephala DC.	mixed	
912	Magnoliopsida	Myrtaceae Juss.	Eucalyptus kruseana F.Muell.	native	P4
913	Magnoliopsida	Myrtaceae Juss.	Eucalyptus marginata Sm. subsp. marginata	native	
914	Magnoliopsida	Myrtaceae Juss.	Eucalyptus rhodantha Blakely & H.Steedman *(Rose Mallee, Scott's Mallee)*	native	Parent of conservation listed taxa
915	Magnoliopsida	Myrtaceae Juss.	Eucalyptus rhodantha Blakely & H.Steedman var. rhodantha	native	EN
916	Magnoliopsida	Myrtaceae Juss.	Eucalyptus rudis Endl. *(Flooded Gum, Kulurda)*	native	

917	Magnoliopsida	Myrtaceae Juss.	Eucalyptus stoatei C.A.Gardner *(Scarlet Pear Gum)*	native	P4
918	Magnoliopsida	Myrtaceae Juss.	Eucalyptus todtiana F.Muell.	native	
919	Magnoliopsida	Myrtaceae Juss.	Eucalyptus x mundijongensis Maiden	native	P1
920	Magnoliopsida	Myrtaceae Juss.	Gaudium laevigatum (Gaertn.) Peter G.Wilson		
921	Magnoliopsida	Myrtaceae Juss.	Hypocalymma inopinatum Rye, Keighery & M.D.Barrett		P2
922	Magnoliopsida	Myrtaceae Juss.	Hypocalymma magnificum Rye, Keighery & M.D.Barrett *(Superb Myrtle)*	native	EN
923	Magnoliopsida	Myrtaceae Juss.	Hypocalymma quadrangulare Rye & Keighery *(West Coast Myrtle)*	native	P3
924	Magnoliopsida	Myrtaceae Juss.	Hypocalymma robustum (Endl.) Lindl.	native	
925	Magnoliopsida	Myrtaceae Juss.	Kunzea glabrescens Toelken	native	
926	Magnoliopsida	Myrtaceae Juss.	Kunzea micrantha Schauer subsp. micrantha	native	
927	Magnoliopsida	Myrtaceae Juss.	Leptospermopsis erubescens (Schauer) Peter G.Wilson	native	
928	Magnoliopsida	Myrtaceae Juss.	Melaleuca calothamnoides F.Muell.	native	
929	Magnoliopsida	Myrtaceae Juss.	Melaleuca huegelii Endl.	native	
930	Magnoliopsida	Myrtaceae Juss.	Melaleuca lutea Craven	native	
931	Magnoliopsida	Myrtaceae Juss.	Melaleuca nesophila F.Muell.	mixed	
932	Magnoliopsida	Myrtaceae Juss.	Melaleuca parviceps Lindl.	native	
933	Magnoliopsida	Myrtaceae Juss.	Melaleuca systena Craven	native	
934	Magnoliopsida	Myrtaceae Juss.	Melaleuca viminalis (Gaertn.) Byrnes	native	Parent of conservation listed taxa
935	Magnoliopsida	Myrtaceae Juss.	Verticordia drummondii Schauer	native	
936	Magnoliopsida	Myrtaceae Juss.	Verticordia lindleyi Schauer subsp. lindleyi	native	P4
937	Magnoliopsida	Myrtaceae Juss.	Verticordia monadelpha Turcz.	mixed	
938	Magnoliopsida	Myrtaceae Juss.	Verticordia venusta A.S.George	native	P3
939	Magnoliopsida	Olacaceae R.Br.	Olax benthamiana Miq.	native	
940	Magnoliopsida	Oleaceae Hoffmanns. & Link	Olea europaea L. subsp. europaea	alien	
941	Magnoliopsida	Orobanchaceae Vent.	Orobanche minor Sm.	alien	
942	Magnoliopsida	Oxalidaceae R.Br.	Oxalis caprina Thunb.	alien	
943	Magnoliopsida	Oxalidaceae R.Br.	Oxalis pes-caprae L. *(Soursob)*	alien	
944	Magnoliopsida	Papaveraceae Juss.	Fumaria muralis W.D.J.Koch	alien	
945	Magnoliopsida	Phyllanthaceae Martinov	Lysiandra calycina (Labill.) R.W.Bouman *(False Boronia)*	native	
946	Magnoliopsida	Phyllanthaceae Martinov	Phyllanthus L.		
947	Magnoliopsida	Phyllanthaceae Martinov	Poranthera moorokatta R.L.Barrett	native	P2
948	Magnoliopsida	Pittosporaceae R.Br.	Billardiera fraseri (Hook.) L.Cayzer, Crisp & I.Telford	native	
949	Magnoliopsida	Pittosporaceae R.Br.	Marianthus mollis (E.M.Benn.) L.Cayzer & Crisp	native	P4
950	Magnoliopsida	Plantaginaceae Juss.	Misopates orontium (L.) Raf. *(Lesser Snapdragon)*	alien	
951	Magnoliopsida	Plantaginaceae Juss.	Plantago lanceolata L.	alien	
952	Magnoliopsida	Polygalaceae Hoffmanns. & Link	Comesperma integerrimum Endl.	native	
953	Magnoliopsida	Polygonaceae Juss.	Rumex drummondii Meisn.	native	P4
954	Magnoliopsida	Primulaceae Borkh.	Lysimachia arvensis (L.) U.Manns & Anderb.	alien	
955	Magnoliopsida	Proteaceae Juss.	Adenanthos cygnorum subsp. chamaephyton E.C.Nelson	native	P3
956	Magnoliopsida	Proteaceae Juss.	Banksia attenuata R.Br. *(Slender Banksia)*	native	
957	Magnoliopsida	Proteaceae Juss.	Banksia grandis Willd. *(Bull Banksia)*	native	
958	Magnoliopsida	Proteaceae Juss.	Banksia ilicifolia R.Br.	native	
959	Magnoliopsida	Proteaceae Juss.	Banksia menziesii R.Br. *(Firewood Banksia)*	native	
960	Magnoliopsida	Proteaceae Juss.	Banksia nivea Labill. *(Honeypot Dryandra)*	native	
961	Magnoliopsida	Proteaceae Juss.	Banksia prionotes Lindl.	native	
962	Magnoliopsida	Proteaceae Juss.	Banksia sessilis (Knight) A.R.Mast & K.R.Thiele *(Parrot Bush)*	native	
963	Magnoliopsida	Proteaceae Juss.	Conospermum undulatum Lindl.	native	VU
964	Magnoliopsida	Proteaceae Juss.	Grevillea asparagoides Meisn.	native	P3
965	Magnoliopsida	Proteaceae Juss.	Grevillea crithmifolia R.Br.	native	
966	Magnoliopsida	Proteaceae Juss.	Grevillea curviloba McGill.	mixed	EN

967	Magnoliopsida	Proteaceae Juss.	Grevillea endlicheriana Meisn. *(Spindly Grevillea)*	native	Parent of conservation listed taxa
968	Magnoliopsida	Proteaceae Juss.	Grevillea eryngioides Benth. *(Curly Grevillea)*	native	
969	Magnoliopsida	Proteaceae Juss.	Grevillea fililoba (McGill.) Olde & Marriott	native	P1
970	Magnoliopsida	Proteaceae Juss.	Grevillea ornithopoda Meisn.	native	P2
971	Magnoliopsida	Proteaceae Juss.	Grevillea pimeleoides W.Fitzg.	native	P4
972	Magnoliopsida	Proteaceae Juss.	Grevillea pinifolia Meisn. *(Pine-leaved Grevillea)*	native	P1
973	Magnoliopsida	Proteaceae Juss.	Grevillea preissii Meisn.	native	
974	Magnoliopsida	Proteaceae Juss.	Grevillea thelemanniana Endl. *(Spider Net Grevillea)*	native	CR
975	Magnoliopsida	Proteaceae Juss.	Grevillea vestita (Endl.) Meisn.	native	
976	Magnoliopsida	Proteaceae Juss.	Hakea costata Meisn.	mixed	
977	Magnoliopsida	Proteaceae Juss.	Hakea incrassata R.Br. *(Marble Hakea)*	native	
978	Magnoliopsida	Proteaceae Juss.	Hakea lissocarpha R.Br. *(Honey Bush)*	native	
979	Magnoliopsida	Proteaceae Juss.	Hakea pycnoneura Meisn.	mixed	
980	Magnoliopsida	Proteaceae Juss.	Hakea trifurcata (Sm.) R.Br. *(Two-leaf Hakea)*	native	
981	Magnoliopsida	Proteaceae Juss.	Hakea varia R.Br.	native	
982	Magnoliopsida	Proteaceae Juss.	Isopogon drummondii *(Autumn Isopogon)*	native	P3
983	Magnoliopsida	Proteaceae Juss.	Persoonia saccata R.Br.	native	
984	Magnoliopsida	Proteaceae Juss.	Petrophile latericola Keighery	native	CR
985	Magnoliopsida	Proteaceae Juss.	Petrophile linearis R.Br. *(Pixie Mops)*	native	
986	Magnoliopsida	Proteaceae Juss.	Petrophile macrostachya R.Br.	native	
987	Magnoliopsida	Proteaceae Juss.	Stirlingia latifolia (R.Br.) Steud. *(Blueboy)*	native	
988	Magnoliopsida	Proteaceae Juss.	Synaphea spinulosa (Burm.f.) Merr.	native	
989	Magnoliopsida	Rhamnaceae Juss.	Cryptandra arbutiflora Fenzl	native	
990	Magnoliopsida	Rhamnaceae Juss.	Cryptandra scoparia Reissek	native	
991	Magnoliopsida	Rhamnaceae Juss.	Spyridium globulosum (Labill.) Benth.	native	
992	Magnoliopsida	Rhamnaceae Juss.	Stenanthemum notiale subsp. chamelum Rye	native	
993	Magnoliopsida	Rhamnaceae Juss.	Stenanthemum tridentatum (Steud.) Reissek	native	
994	Magnoliopsida	Rhamnaceae Juss.	Trymalium ledifolium Fenzl	native	
995	Magnoliopsida	Rubiaceae Juss.	Galium divaricatum Lam.	alien	
996	Magnoliopsida	Rubiaceae Juss.	Galium murale (L.) All.	alien	
997	Magnoliopsida	Rubiaceae Juss.	Opercularia vaginata Juss.	native	
998	Magnoliopsida	Santalaceae R.Br.	Korthalsella leucothrix Barlow	native	P1
999	Magnoliopsida	Sapindaceae Juss.	Dodonaea hackettiana W.Fitzg. *(Hackett's Hopbush)*	native	P4
1000	Magnoliopsida	Scrophulariaceae Juss.	Eremophila brevifolia (Bartl.) F.Muell. *(Spotted Eremophila)*	native	P2
1001	Magnoliopsida	Solanaceae Juss.	Anthocercis ilicifolia Hook. subsp. ilicifolia	native	
1002	Magnoliopsida	Solanaceae Juss.	Anthocercis littorea Labill.	native	
1003	Magnoliopsida	Solanaceae Juss.	Solanum linnaeanum Hepper & P.-M.L.Jaeger	alien	
1004	Magnoliopsida	Solanaceae Juss.	Solanum lycopersicum L. *(Tomato)*	alien	
1005	Magnoliopsida	Solanaceae Juss.	Solanum nigrum L. *(Black Berry Nightshade)*	alien	
1006	Magnoliopsida	Stylidiaceae R.Br.	Levenhookia preissii (Sond.) F.Muell.	native	P1
1007	Magnoliopsida	Stylidiaceae R.Br.	Levenhookia stipitata (Benth.) Benth.	native	
1008	Magnoliopsida	Stylidiaceae R.Br.	Stylidium affine Sond.	native	
1009	Magnoliopsida	Stylidiaceae R.Br.	Stylidium diversifolium R.Br. *(Touch-me-not)*	native	
1010	Magnoliopsida	Stylidiaceae R.Br.	Stylidium galioides C.A.Gardner *(Yellow Mountain Triggerplant)*	native	VU
1011	Magnoliopsida	Stylidiaceae R.Br.	Stylidium hispidum Lindl. *(White Butterfly Triggerplant)*	native	
1012	Magnoliopsida	Stylidiaceae R.Br.	Stylidium maritimum Lowrie, Coates & Kenneally *(Coastal Triggerplant)*	native	P3
1013	Magnoliopsida	Stylidiaceae R.Br.	Stylidium paludicola Wege	native	P3
1014	Magnoliopsida	Stylidiaceae R.Br.	Stylidium repens R.Br.	native	
1015	Magnoliopsida	Stylidiaceae R.Br.	Stylidium striatum Lindl.	native	P4
1016	Magnoliopsida	Thymelaeaceae Juss.	Pimelea calcicola Rye *(Coastal Banjine)*	native	P3
1017	Magnoliopsida	Thymelaeaceae Juss.	Pimelea rosea R.Br. *(Rose Banjine)*	native	

1018	Magnoliopsida	Urticaceae Juss.	Urtica urens L.	alien	
1019	Magnoliopsida	Verbenaceae J.St.-Hil.	Lantana camara L.	alien	
1020	Magnoliopsida	Violaceae Batsch	Pigea calycina DC. *(Wild Violet)*	native	
1021	Pinopsida	Cupressaceae Gray	Callitris roei (Endl.) F.Muell.	mixed	
1022	Pteridopsida	Pteridaceae E.D.M.Kirchn.	Adiantum capillus-veneris L. *(Maidenhair)*	native	P2
1023	Pteridopsida	Pteridaceae E.D.M.Kirchn.	Cheilanthes sieberi Kunze subsp. sieberi	native	
1024	Ulvophyceae K.R.Mattox & K.D.Stewart	Caulerpaceae KÃ¼tz.	Caulerpa lagara Carruth., D.I.Walker & Huisman	native	
1025	Ulvophyceae K.R.Mattox & K.D.Stewart	Cladophoraceae Wille	Chaetomorpha aerea (Dillwyn) KÃ¼tz.	native	
1026	Ulvophyceae K.R.Mattox & K.D.Stewart	Cladophoraceae Wille	Cladophora albida (Nees) KÃ¼tz.	native	
1027	Ulvophyceae K.R.Mattox & K.D.Stewart	Cladophoraceae Wille	Cladophora laetevirens (Dillwyn) KÃ¼tz.	native	
1028	Ulvophyceae K.R.Mattox & K.D.Stewart	Cladophoraceae Wille	Rhizoclonium KÃ¼tz.		
1029	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulotrichaceae	Ulothrix subflaccida Wille	native	
1030	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva L.		
1031	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva compressa L.	native	
1032	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva flexuosa Wulfen	native	
1033	Ulvophyceae K.R.Mattox & K.D.Stewart	Ulvaceae Dumort.	Ulva intestinalis L.	native	

Protozoa

1034	Myxomycetes	Cribrariaceae Corda	Cribraria Pers.		
1035	Myxomycetes	Cribrariaceae Corda	Cribraria minutissima Schwein.	native	
1036	Myxomycetes	Physaraceae Chevall.	Badhamia panicea (Fr.) Rostaf.	native	
1037	Myxomycetes	Physaraceae Chevall.	Physarum viride (Bull.) Pers.	native	
1038	Myxomycetes	Stemonitidaceae Fr.	Collaria arcyrionema (Rostaf.) Lado	native	
1039	Myxomycetes	Stemonitidaceae Fr.	Comatricha Preuss		
1040	Myxomycetes	Stemonitidaceae Fr.	Comatricha elegans (Racib.) G.Lister	native	
1041	Myxomycetes	Stemonitidaceae Fr.	Comatricha ellae HÃ¤rk.	native	
1042	Myxomycetes	Stemonitidaceae Fr.	Comatricha nigra (Pers.) J.SchrÃ¶t.	native	
1043	Myxomycetes	Stemonitidaceae Fr.	Paradiacheopsis fimbriata (G.Lister & Cran) Nann.-Bremek.	native	
1044	Myxomycetes	Stemonitidaceae Fr.	Stemonitopsis amoena (Nann.-Bremek.) Nann.-Bremek.	native	
1045	Myxomycetes	Trichiaceae Chevall.	Oligonema verrucosum (Berk.) GarcÃa-Cunch., J.C.Zamora & LadÃ³	native	
1046	Protosteliomycetes	Ceratiomyxaceae J.SchrÃ¶t.	Ceratiomyxa fruticulosa (O.F.MÃ¼ll.) T.Macbr.	native	

Conservation status definitions

Threatened species

- CR – Critically Endangered
- EN – Endangered
- VU – Vulnerable
- EX – Extinct
- EW – Extinct in the Wild
- CD – Species of special conservation interest (conservation dependent)
- OS – Species otherwise in need of special protection (other specially protected)
- MI – Migratory
- SP – Specially protected species

Priority species

- P1 – Priority 1: Poorly-known species – known from few locations, none on conservation lands
- P2 – Priority 2: Poorly-known species – known from few locations, some on conservation lands
- P3 – Priority 3: Poorly-known species – known from several locations
- P4 – Priority 4: Rare, Near Threatened and other species in need of monitoring

Dandjoo specific codes

- Parent of conservation listed taxa
- Cons code inherited from parent, X

Read full definitions at https://bio.wa.gov.au/guide/conservation-status-definitions

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Further note, precise locations of conservation listed species are considered sensitive. To protect this information, obfuscation has been applied to conservation-listed species records. For these species, the true location is ±10km from the search area used to generate this species list.

Appendix C

Site inspection photolog and notes

Matilda Bay Site 1 – Site photolog

Photo 1 *Stained footpath – facing west*

Photo 2 *Stained services – facing west*

Photo 3 *Stained service*

Photo 4 *Water Sports Complex restroom – facing north -east*

Photo 5 *Grated drain – facing north*

Photo 6 *Grated drain – close up*

Matilda Bay Site 1 – Site photolog

Photo 7 *Ungrated concrete drain – facing north*

Photo 8 *Main switch board – facing south*

Photo 9 *Distribution board – facing south-west*

Photo 10 *Lamppost – facing south-west*

Photo 11 *Stained water pump – facing west*

Photo 12 *Exposed fill – facing south*

Matilda Bay Site 1 – Site photolog	
Photo 13 Reticulation cover	*Photo 14 Sprinkler*
Photo 15 PVC stick – facing west	*Photo 16 Tap*

Matilda Bay Site 2 – Site photolog	
Photo 17 Toilet block – facing west	*Photo 18 Stained footpath and stormwater drain – facing west*
Photo 19 UWA carpark – facing north-west	*Photo 20 Nature strip gully – facing south*
Photo 21 Downpipes – facing north-west	*Photo 22 UWA fire hose*

Matilda Bay Site 2 – Site photolog	
Photo 23 *Potential ACM in storm drain – close up*	*Photo 24* *Waste bins – facing north-east*
Photo 25 *Stormwater discharge north – facing south*	*Photo 26* *Stormwater discharge south – facing west*
Photo 27 *Stormwater discharge south – close up.*	

Site Inspection Checklist

Client: PTA		**Job No:** 12658388	
Job Name: PTA Femics PSI		**Date of Site Visit:** 2/5/2025	
Site Address:		**Site Area (approx.):**	
GHD Representative:	Zak langtry Connor Asphar	**Arrival Time:** 1030	**Departure Time:** 1615
Weather Conditions:	(Please circle) (Fine) Overcast Light Rain Heavy Rain Other_____		
Works Being Undertaken:	Site inspection, Hand Auger, PID testing		

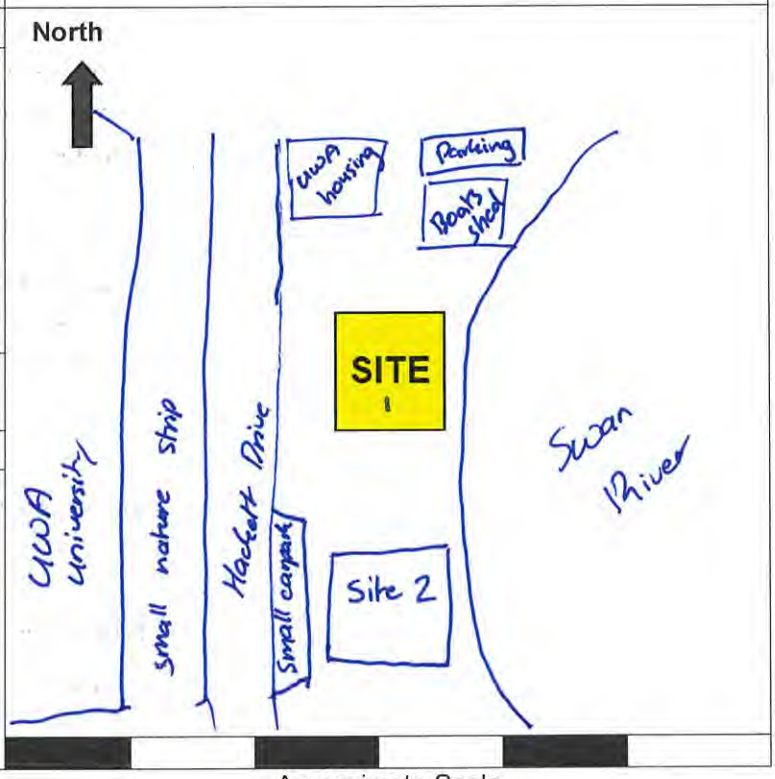
Potentially Sensitive Receptors near Site
(e.g. Schools, Hospitals, Surface Water Bodies, etc.)

Type	Direction	Distance
Swan River	E	0m

Potential Contamination Sources near Site
(eg Petrol Stations, Chemical Plants, Landfills, etc)

Type	Direction	Distance
UWA	W	0 m.
Boat Sheds	N	0 m
Royal Yabct Club	S	450 m

Use Sketch Map to indicate significant features adjacent to the site
Include Land Use, Buildings, Ground Cover, Water Courses, Wet Lands, Drainage Ditches etc.



Approximate Scale

No	Item	Comment	Photo ID
1	Is a site locality plan attached? ☐ Yes ☑ No Describe surrounding land uses:	Public park, university, recreational facilities, some buildings close by in North section	
2	Is a site layout plan attached? ☐ Yes ☑ No Brief site description:	Site 1, grassed area, gently sloping west, some tree cover, UWA to W, Boats sheds N, Swan river W + Matilda bay Sth Site 2 grassed area, flat, some tree cover, UWA W, Matilda bay Sth + Nth, Swan River west	

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Site Inspection Checklist

No	Item	Comment	Photo ID
3	Infrastructure (overhead and evidence of underground services):	Storm water, electrical, hazchem,	
4	Is there a septic tank? ☐ Yes ☑ No		
5	Topography and slope (approximate gradient, direction of runoff or spills).	Gentle westward slope in site 1, Flat in site 2, runoff East towards Swan, Bore water staining over most equipment	
6	Are there any drains, sumps etc.? ☑ Yes ☐ No Are they open/covered, general condition, discharge points?	Drains up near edge of Hackett Dr, some drains output to Swan River, all open, some filled with leaves, mostly clear, outputs submerged	
7	Paving, floor or site surface type(s) and conditions (e.g. concrete, bitumen, grassed, soil, etc. including % cover, for hard areas indicate if cracked):	grassed area for majority of site, some sand ≈ 5% at shoreline, some concrete + bitumen for road / footpaths	
8	Is any visible staining present? ☑ Yes ☐ No	Bore water staining on most facilities	
9	Is site built on? ☑ Yes ☐ No Abandoned buildings ☐ Yes ☑ No Demolished buildings ☐ Yes ☑ No	Public toilets in site 2 Carpark in site 2 (Uni) and Hackett Drive.	
10	Is there presence of surface water on or near site? ☑ Yes ☐ No Name closest water course and provide distance and direction to site:	Swan River, Om East	

Site Inspection Checklist

No	Item	Comment	Photo ID
11	Is there presence of vegetation? ☑ Yes ☐ No Describe condition and location:	large trees and some small shrubs spread across entire Mahlda bay	
12	Is there evidence of any odour? ☑ Yes ☐ No	Minor organic odour site 1	
13	Is there any litter, illegal dumping? ☑ Yes ☐ No Describe location and what it is:	Minor litter around bins etc, general waste skip bins located in clusters around site	
14	Is there any waste or chemical drums? ☐ Yes ☑ No Describe type of materials stored, condition of containers, spills stains, bunds, location etc.		
15	Is there lead paint flakes or potential lead paint? ☐ Yes ☑ No		
16	Is there any kind of workshop? ☑ Yes ☐ No	Small workshop in boats shed NE site 1	
17	Is there any kind of service bay? ☐ Yes ☑ No		
18	Is there any kind of wash bay? ☐ Yes ☑ No	Boat washing likely to occur on/near ramps of UWA boat club and water sports complex.	
19	Is there any evidence of saw cuts in concrete, unusual drainage systems or oil/water separators? ☑ Yes ☐ No	Some replaced grass sections around above ground valves in site 1 Various cuts in UWA carpark	
20	Is there any evidence of USTs	—	

Site Inspection Checklist

No	Item	Comment	Photo ID
	on site? ☐ Yes ☑ No Bowser ☐ Yes ☑ No Dip points ☐ Yes ☑ No Fill points ☐ Yes ☑ No Vents ☐ Yes ☑ No Describe number, in use, condition, leaks:		
21	Is there any evidence of furnaces/incinerators/burning, scorched soils ☑ Yes ☐ No Describe condition, surrounding soil condition, use and contents of fire box (e.g. ash, paper, wire, etc.):	Charcoals in exposed fill (Site 1) Burnt wood at water line.	
22	Is there any evidence of filling on site? ☑ Yes ☐ No Describe surface soils/fill appearance or disturbance:	various fill types used in site 1, shoreline slowly eroding showing exposed fill, contain brick, other building materials, surface layer is grass	
23	Is there any evidence of stockpiling on site? ☐ Yes ☑ No Describe surface soils/stockpiling appearance or disturbance:		
24	Is there evidence of asbestos in soil? ☐ Yes ☑ No		
25	Is there evidence of asbestos in building (cement sheet or fibrous		

Site Inspection Checklist

No	Item	Comment	Photo ID
	insulation)? ☑ Yes ☐ No	100 mm Asbestos pipe running through centre of matilda bay used for irrigation	
26	Is there evidence of SMF in buildings? ☐ Yes ☑ No	—	
27	Is there any evidence of PCB containing electrical equipment (transformer, old fluorescent lights etc.)? ☐ Yes ☑ No		
28	Is there any evidence of ASTs on site? ☐ Yes ☑ No Bowser ☐ Yes ☑ No Describe number, in use, condition, leaks:		
29	Describe previous land use if known:	Coastal recreational area	
30	Is there a substation, capacitor banks or transformer? ☐ Yes ☑ No Describe condition, whether ground or pole mounted, indicate soil conditions and splash marks, etc.	Potential ground mounted transformer on Site1 west of footpath.	
31	Is the site fenced? ☐ Yes ☑ No If No, is the site secure from illegal dumping?		

Site Inspection Checklist

No	Item	Comment	Photo ID
	☐ Yes ☑ No		
32	Further comments or Anecdotal evidence:	Recreational area can be used for events, some reintroduction of native plants in specific areas, stormwater drains from Hackett Dr run to Swan River	

Completed by:		Additional Remarks/Comment: (Include details of other personnel on-site)
Name:	Connor A	
Signature:		
Date:	2/5/25	
Reviewed by:		
Name:		
Signature:		
Date:		

Project Number: 12658388	**Client:** PTA	**Date:** 2/6/2025
Project Name: Swan River Ferries PSI		
Project Manager: Louise	**Field Representative/s:** ZL CA	
Home/office departure time: 10:15	Site arrival time: 10:30	Site departure time: 16:15	Home/office arrival time: 16:30

Weather conditions (please circle)	Hot	(Fine)	Overcast	Light rain	Heavy rain	Windy
	Other:					
Subcontractors Y/(N)	Details:					
Client onsite Y/(N)	Details:					
Equipment used and condition	Details: HA + PID					
Planned field activities (please circle)	(Site inspection)	Drilling	Test pitting	Hand augering	(Sediment/soil sampling)	
	Stockpile sampling	Surface water sampling	Groundwater sampling	Vapour sampling	Landfill gas sampling	
	Other:					

Site log/diary

Retic.

Onsite client/PM conversations, subbie arrival/breaks, equipment issues, weather changes, instructions received, when you arrived at each sampling location etc...

100mm AZ20PVC pipe running through centre of both sites

onsite 10:30 → observations

- NW corner of site 1 - MV switchboards + distributor
- Flush mount drain on road and Class C Hatch
- Class D sealed GRAF Hatch next to resident building (UWA)
- far NW corner of site - 4x fire hydrants - Flushmount
  - 1x Flush drain - Galvins lift up inspection hatch
  - 1x water hatch
  - 1x Sealed hatch (class D)
- 3 downpipes off Sth side UWA boats club
- Significant orange staining along south side
- public toilets
- 6x sewer drain ports
- Class D sealed water corp plate infront of toilets
- Drains infront of male toilets
- 2 large downpipes on East side boats shed + ~~Kerb~~ drain (Flush mount)
- Hazardous chemical cabinet in shed
- pipes running into river (organic odour) locked grate covering East of boats shed
- large pipe running into river Sth of boats shed
- water corp class D sealed hatches (suspected access to 100mm ACM pipe)
- site main switchboard 4.0 (significant orange staining), access hatch and electrical cables access port in close proximity
- zone 4 distribution board and flush electrical cables access port
- various / large retic system scattered all over
- general waste skip bins in centre of park
- zone 4 distribution board 4.3 near to general waste bins
- exposed ball valve, south of zone 4 distribution board (and piping)
- main switchboard next to Hackett drive (orange staining), NBN service hatch with
- Telstra hatches just south of switchboard (orange staining)
- ~~lamp~~ lamp posts running along centre of park length → access ports behind each
- rods and breakers at each lamp post in seperate box (both orange stained)
- exposed old planks on foreshore, buried in sand, potentially used to stop erosion of banks containing old fill → now exposed → bricks, rocks, slabs cement
- severly exposed / eroded East of native plantation area
- General waste bins near to native plantation area
- Eroded coastline fill most of site 1
- zone 4 distribution board 4.4 and flush access plate south of noble area on site boundary and light post
- exposed ball valve and piping in native growth area (orange staining)
- zone 4 distribution board 4.2 within native growth area
- access port just east of native growth area
- retic heads still present spanning from centre main pipe
- hose tap head present in bushes on boundary line south and unknown pipe into ground
- eroded soil has varying colour gradient (possible different fill)

- Drain flushmount on hackett drive east side, centre of site 1
- Drain flushmont on hackett drive east side, close to entry to boats club carpark

Matbag 4) HA02 moved east to target exposed fill

MatBay2-HA01 moved East due to frequent roo strikes

Site Layout/other details MatBay Site 2 PS1

- Bore water staining footpath + public toilets on Northern boundary of site
- coastal area intact limited erosion and degredation
- 2 drains ~~out~~ of public toilets (front + back)
- 6 PVC caps in floor (suspected sewer), some electrical cables entering ground
- Tap out of ground east of public toilets
- Galvin rectangular steel plate (flush mount) + circular steel plate next (SE)
- Flush mount electrical cable flush mount cement
- General waste bins next to public toilets
- C and D waste scattered around general waste bins
- some coastal erosion of banks SE of public toilets
- Flush mount drain in eastern corner of carpark south of public toilets
- Metal pipe sticking up out of cement circle (suspected retic head snapped off)
- Drainpipe into river, East of drain in carpark SW of public toilets
- Irrigation valve box flushmount, centre of park inline with 100mm ACM pipe from site 1
- Dead patch of grass opposite carpark, low traffic area
- Flushmount electrical box next to parking meter
- ~~Gilbert~~ Watthour meter (western power) next to parking meter
- Parking metter heavily bore stained
- just outside southern boundary drain inline with southern drain of carpark
- retic head and cement circle inline with drain
- water corp hatch and stormwater plate @ southern end of carpark next to flushmount drain
- Twin cement hatch on west side of southern end of carpark
- Flushmount drain in centre of carpark eastside
- Hackett drive drain flushmount, west side of carpark
- Flushmount drain in carpark, North of wattmeter hour
- Flushmount drain hackettdrive, west side carpark, south of toilet block x2
- west side of hackett drive drain SW of public toilets
- stormwater drain in nature strip west of hackett drive, SW of public toilets
- Flushmount drain, southern end of bus stop area
- Nature strip clear concave shape → water pool and infiltrate down
- flush mount hatch uni carpark opposite guild village building
- Flush mount drain NE of guild village in uni carpark
- 2x flushmount drains in uni foot path NW of village + carpark E of footpath
- Same again → 20m North
- Drain flushmount → uni foot path, North guild village

- SW drain on east side uni footpath
- Class D sealed hatch east side law building
- footpath drain from 2nd + 3rd story law building
- flush mount hatch NE law building
- Storm water drain SE law building
- Have skate classic hatch E

- 6x Drains east side law building
- 2x step covers
- 2x water hatches
- 2x electrical cable access

- water corp access pit next to law building
- FH East of water corp access pit
- 5x downpipes east side law building

QA blank sample register

Date/time	QA blank sample ID	Type (please circle)	Notes Rinsate taken off, field blank location, trip blank lab ID	Containers
25/06/02	Rin 2	(RB) FB TB	Taken off shovel @ HA02	4 containes
28/05/02	Field 2	RB (FB) TB	Taken @ HA02	4 containers
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		
		RB FB TB		

QC duplicate sample register

Date/time	Primary sample ID	Blind Duplicate Sample ID	Split Duplicate Sample ID	Containers
2025/05/02	GHD-Matbay1-HA01-0.2	Dup 3	Split 3	1x glass soil container

Appendix D

Soil sampling analytical results

Site												Site 1								
Location Code												GHD_MatBay1_HA01	GHD_MatBay1_HA01	GHD_MatBay1_HA01	GHD_MatBay1_HA02	GHD_MatBay1_HA02	GHD_MatBay1_HA02	GHD_MatBay1_HA03	GHD_MatBay1_HA03	GHD_MatBay1_HA03
Date												02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025
Sample Type												Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Depth												0.1 - 0.2	0.2 - 0.8	0.8 - 1	0.1 - 0.3	0.3 - 0.7	0.7 - 1	0.1 - 0.3	0.3 - 0.6	0.6 - 1
	Unit	EQL	CRC CARE 2011 Soil HSL Vap.Int Intrusive Works,0 to <2m,Sand	CRC CARE 2011 Soil Direct Contact HSL-C Recreational / Open Space	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil	*NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil*	**NEPM 2013 EIL-Areas of Ecological Significance**	NEPM 2013 EIL-Urban Residential- Public Open Space	NEPM 2013 Table 1A(1) HILs Rec C Soil	NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1A(1) HIL C Rec								
Inorganics																				
% Moisture_	%	1										7.4	6.7	2.6	8.6	4.4	2.8	8.6	11	13
Metals																				
Arsenic	mg/kg	2						**40**	100	300		300	3.4	6.3	<2	11	4.3	<2	<2	<2	<2
Cadmium	mg/kg	0.1								90		90	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (III+VI)	mg/kg	1							190	15		300	8.3	15	1.4	21	2.5	1.3	5.1	6.6	11
Copper	mg/kg	1						**20**	60	17,000		17,000	5.9	11	<1	11	2.1	<1	5.2	2.8	1.2
Lead	mg/kg	1						**470**	1,100	600		600	26	110	1.6	53	8.0	1.6	14	7.3	7.3
Mercury	mg/kg	0.02								80		80	0.03	0.03	<0.02	0.03	<0.02	<0.02	0.03	0.04	0.04
Nickel	mg/kg	1						**5**	30	1,200		1,200	1.2	1.8	<1	1.5	<1	<1	1.2	1.4	1.7
Zinc	mg/kg	5						**15**	70	30,000		30,000	**20**	**79**	7.1	14	<5	<5	**20**	**45**	<5
BTEXN																				
Naphthalene (value used in F2 calc)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	mg/kg	0.1	77	120		10	*50*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	NL	18,000		10	*85*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	NL	5,300		1.5	*70*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (o)	mg/kg	0.1											<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2											<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene Total	mg/kg	0.3	NL	15,000		10	*105*						<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH - NEPM 2013																				
F1 (C6-C10 minus BTEX)	mg/kg	20	NL	5,100		125	*180*						<20	<20	<20	<20	<20	<20	<20	<20	<20
C6-C10 Fraction	mg/kg	20			700								<20	<20	<20	<20	<20	<20	<20	<20	<20
F2 (>C10-C16 minus Naphthalene)	mg/kg	50	NL	3,800		25							<50	<50	<50	<50	<50	<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50			1,000	25	*120*						<50	<50	<50	<50	<50	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100		5,300	2,500		*300*						<100	<100	<100	<100	<100	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100		7,400	10,000		*2,800*						<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	100											<100	<100	<100	<100	<100	<100	<100	<100	<100
TRH - NEPM 1999																				
C6-C9 Fraction	mg/kg	20											<20	<20	<20	<20	<20	<20	<20	<20	<20
C10-C14 Fraction	mg/kg	20											<20	<20	<20	<20	<20	<20	<20	<20	<20
C15-C28 Fraction	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50
C29-C36 Fraction	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50
C10-C36 (Sum of Total)	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50
PAHs - standard 16																				
Acenaphthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5											<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5				0.7	*0.7*						0.5	*0.7*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo[b+j]fluoranthene	mg/kg	0.5											1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5											1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	NL	1,900				**10**	170				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5											1.4	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5								300		300	4.5	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								3		3	0.7	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								3		3	1.0	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								3		3	1.3	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PAHs - extended																				
2-methylnaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-methylcholanthrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7,12-dimethylbenz(a)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorinated Hydrocarbons																				
1,1,1,2-tetrachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-trichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-tetrachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-trichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-dichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chloronaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorotoluene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVOCs																				
1,2,3,4-tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3,5-Tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4,5-tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chloronaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-naphthylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-naphthylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitroaniline	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3,3-Dichlorobenzidine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-(dimethylamino) azobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-bromophenyl phenyl ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorophenyl phenyl ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aniline	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzyl chloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroethoxy) methane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroisopropyl) ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,j)acridine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenzofurar	ng/kg	500,000											<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000
Diphenylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-butylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-propylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosopiperidine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs																				
1,1-dichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dibromoethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-butanone (MEK)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methyl-2-pentanone (MIBK)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-dichloropropene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-dichloropropene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Environmental Standards
2013, NEPM 2013 Table 1A(1) HILs Rec C Soi
2013, NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sanc

Statistics
* A Non Detect Multiplier of 0.5 has been applied

Site												**Site 2**								
Location Code												GHD_MatBay2_HA01	GHD_MatBay2_HA01	GHD_MatBay2_HA01	GHD_MatBay2_HA02	GHD_MatBay2_HA02	GHD_MatBay2_HA02	GHD_MatBay2_HA03	GHD_MatBay2_HA03	GHD_MatBay2_HA03
Date												02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025
Sample Type												Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Depth												0.1 - 0.3	0.3 - 0.5	0.5 - 0.75	0.1 - 0.3	0.3 - 0.5	0.5 - 0.65	0.1 - 0.2	0.2 - 0.5	0.5 - 1
	Unit	EQL	CRC CARE 2011 Soil HSL Vap.Int Intrusive Works,0 to <2m,Sand	CRC CARE 2011 Soil Direct Contact HSL-C Recreational / Open Space	NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil	NEPM 2013 Table 1B(6) ESLs for Areas of Ecological Significance, Coarse Soil	*NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil*	**NEPM 2013 EIL-Areas of Ecological Significance**	NEPM 2013 EIL-Urban Residential- Public Open Space	NEPM 2013 Table 1A(1) HILs Rec C Soil	NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand	NEPM 2013 Table 1A(1) HIL C Rec									
Inorganics																				
% Moisture_	%	1										5.2	3.7	3.1	5.0	6.1	4.4	5.7	3.2	2.0
Metals																				
Arsenic	mg/kg	2						**40**	100	300		300	<2	<2	<2	<2	<2	<2	<2	<2	<2
Cadmium	mg/kg	0.1								90		90	<0.1	<0.1	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (III+VI)	mg/kg	1							190			300	**1.3**	**1.0**	**2.2**	**2.4**	**6.2**	**3.3**	**6.0**	**4.8**	**4.5**
Copper	mg/kg	1						**20**	60	17,000		17,000	**1.7**	**1.4**	**4.1**	**1.5**	**6.3**	**1.9**	**6.1**	**2.1**	**1.1**
Lead	mg/kg	1						**470**	1,100	600		600	**3.4**	**2.0**	**4.3**	**5.9**	**30**	**7.3**	**31**	**7.6**	**3.1**
Mercury	mg/kg	0.02								80		80	<0.02	<0.02	**0.02**	<0.02	**0.03**	<0.02	**0.04**	**0.03**	**0.02**
Nickel	mg/kg	1						**5**	30	1,200		1,200	<1	<1	<1	<1	**1.5**	<1	**1.6**	**1.7**	**1.1**
Zinc	mg/kg	5						**15**	70	30,000		30,000	**6.8**	<5	**10.0**	**5.0**	**27**	**5.8**	**26**	**5.9**	<5
BTEXN																				
Naphthalene (value used in F2 calc)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	mg/kg	0.1	77	120		10	*50*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	NL	18,000		10	*85*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	NL	5,300		1.5	*70*						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (o)	mg/kg	0.1											<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2											<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene Total	mg/kg	0.3	NL	15,000		10	*105*						<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH - NEPM 2013																				
F1 (C6-C10 minus BTEX)	mg/kg	20	NL	5,100		125	*180*						<20	<20	<20	<20	<20	<20	<20	<20	<20
C6-C10 Fraction	mg/kg	20			700								<20	<20	<20	<20	<20	<20	<20	<20	<20
F2 (>C10-C16 minus Naphthalene)	mg/kg	50	NL	3,800		25							<50	<50	<50	<50	<50	<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50			1,000	25	*120*						<50	<50	<50	<50	<50	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100		5,300	2,500		*300*						<100	<100	<100	<100	<100	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100		7,400	10,000		*2,800*						<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	100											<100	<100	<100	<100	<100	<100	<100	<100	<100
TRH - NEPM 1999																				
C6-C9 Fraction	mg/kg	20											<20	<20	<20	<20	<20	<20	<20	<20	<20
C10-C14 Fraction	mg/kg	20											<20	<20	<20	<20	<20	<20	<20	<20	<20
C15-C28 Fraction	mg/kg	50											<50	<50	<50	<50	<50	<50	<50	<50	<50
C29-C36 Fraction	mg/kg	50											<50	<50	<50	<50	<50	<50	**52**	<50	<50
C10-C36 (Sum of Total)	mg/kg	50											<50	<50	<50	<50	<50	<50	**52**	<50	<50
PAHs - standard 16																				
Acenaphthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5				0.7	*0.7*						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo[b+j]fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	NL	1,900				**10**	170				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5								300		300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5								3		3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5								3		3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5								3		3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PAHs - extended																				
2-methylnaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3-methylcholanthrene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7,12-dimethylbenz(a)anthracene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorinated Hydrocarbons																				
1,1,1,2-tetrachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-trichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-tetrachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-trichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-dichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chloronaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorotoluene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVOCs																				
1,2,3,4-tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3,5-Tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4,5-tetrachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chloronaphthalene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-naphthylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-naphthylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitroaniline	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3,3-Dichlorobenzidine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-(dimethylamino) azobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-bromophenyl phenyl ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorophenyl phenyl ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aniline	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzyl chloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroethoxy) methane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroisopropyl) ethe	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,j)acridine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenzofuran	ng/kg	500,000											<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000
Diphenylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-butylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-propylamine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosopiperidine	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs																				
1,1-dichloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichloropropane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dibromoethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichlorobenzene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-butanone (MEK)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methyl-2-pentanone (MIBK)	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-dichloropropene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-dichloropropene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	mg/kg	0.5											<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Environmental Standards
2013, NEPM 2013 Table 1A(1) HILs Rec C Soi
2013, NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sanc

Statistics
* A Non Detect Multiplier of 0.5 has been applied

Site								**Site 1**								
Location Code								GHD_MatBay1_HA01	GHD_MatBay1_HA01	GHD_MatBay1_HA01	GHD_MatBay1_HA02	GHD_MatBay1_HA02	GHD_MatBay1_HA02	GHD_MatBay1_HA03	GHD_MatBay1_HA03	GHD_MatBay1_HA03
Date								02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025
Field ID								GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8	GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1	GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6
Sample Type								Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Depth								0.1 - 0.2	0.2 - 0.8	0.8 - 1	0.1 - 0.3	0.3 - 0.7	0.7 - 1	0.1 - 0.3	0.3 - 0.6	0.6 - 1
	Unit	EQL	WA DER 1996 (2019) Landfill Uncontaminated Maximum Concentration	WA DER 1996 (2019) Landfill Cl1 Class 1	WA DER 1996 (2019) Landfill Cl1 Class 2	WA Table Table (2019) Landfill Cl2 Class 1	WA DER 1996 (2019) Landfill Cl2 Class 2									
Inorganics																
% Moisture	%	1						7.4	6.7	2.6	8.6	4.4	2.8	8.6	11	13
Metals																
Arsenic	mg/kg	2	**100**	14	14	140	1,400	3.4	6.3	<2	11	4.3	<2	<2	<2	<2
Cadmium	mg/kg	0.1	**1**	0.4	0.4	4	40	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (III+VI)	mg/kg	1		55	55	1,400	14,000	8.3	15	1.4	21	2.5	1.3	5.1	6.6	11
Copper	mg/kg	1	**50**	60,000	60,000	60,000	60,000	5.2	10	1	11	2.1	1	5.2	7.8	13
Lead	mg/kg	1	**300**	300	300	3,000	30,000	5.2	9.6	1.6	8.8	1.6	1.6	5.4	7.8	7.2
Mercury	mg/kg	0.02	**0.5**	0.2	0.2	2	20	0.03	0.03	<0.02	0.03	<0.02	<0.02	0.03	0.04	0.04
Nickel	mg/kg	1	**10**	4	4	40	400	1.2	1.8	<1	1.5	<1	<1	1.2	1.4	1.7
Zinc	mg/kg	5	**120**	60,000	60,000	60,000	60,000	20	79	7.1	14	<5	<5	20	43	<5
BTEX																
Naphthalene (value used in F2 calc)	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	mg/kg	0.1	**0.5**	0.2	0.2	2	20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	**85**	160	160	1,600	16,000	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	**55**	60	60	600	6,000	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (o)	mg/kg	0.1						<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2						<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene Total	mg/kg	0.3	**40**	120	120	1,200	12,000	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TPH - NEPM 2013																
F1 (>C6-C10 minus BTEX)	mg/kg	20						<20	<20	<20	<20	<20	<20	<20	<20	<20
>C6-C10 Fraction	mg/kg	20	**45**					<20	<20	<20	<20	<20	<20	<20	<20	<20
F2 (>C10-C16 minus Naphthalene)	mg/kg	50						<50	<50	<50	<50	<50	<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50	**110**					<50	<50	<50	<50	<50	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100	**300**					<100	<100	<100	<100	<100	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100						<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	100						<100	<100	<100	<100	<100	<100	<100	<100	<100
TRH - NEPM 1999																
>C6-C9 Fraction	mg/kg	20						<20	<20	<20	<20	<20	<20	<20	<20	<20
>C10-C16 Fraction	mg/kg	20						<20	<20	<20	<20	<20	<20	<20	<20	<20
>C16-C28 Fraction	mg/kg	50						<50	<50	<50	<50	<50	<50	<50	<50	<50
>C28-C36 Fraction	mg/kg	50						<50	<50	<50	<50	<50	<50	<50	<50	<50
>C10-C36 (Sum of Total)	mg/kg	50						<50	<50	<50	<50	<50	<50	<50	<50	<50
PAHs - NEPM 2013																
Acenaphthene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5						<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	**1**					0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo[b+j]fluoranthene	mg/kg	0.5						1.4	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5						1.2	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5						1.2	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	**3**					<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5						1.4	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5						4.5	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5						0.7	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5						1.0	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5						1.3	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PAHs - extended																
1-methylnaphthalene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methylnaphthalene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7,12-dimethylbenz(a)anthracene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorinated Hydrocarbons																
1,1,1,2-tetrachloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-trichloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-tetrachloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-trichloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-dichloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-trichlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-dichlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chloronaphthalene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chlorotoluene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-dichloroethene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SVOCs																
1,2,3,4-tetrachlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3,5-tetrachlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4,5-tetrachlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Diphenylhydrazine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chloronaphthalene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-naphthylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-naphthylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitroaniline	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3,3-Dichlorobenzidine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-(dimethylamino) azobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Bromophenyl phenyl ether	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorophenyl phenyl ether	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aniline	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzyl chloride	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroethoxy) methane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroisopropyl) ether	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
bis(2-ethylhexyl)phthlate	mg/kg	5						<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbazole	mg/kg	500,000						<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000	<500,000
Diphenylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachloroethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-butylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-propylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodiphenylamine	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs																
1,1-dichloroethene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichloropropane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dibromoethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichlorobenzene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-butanone (MEK)	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methyl-2-pentanone (MIBK)	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-dichloropropene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	mg/kg	0.5						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Statistics
* A Non Detect Multiplier of 0.5 has been applied.

								Site	Site 2								
								Location Code	GHD_MatBay2_HA01	GHD_MatBay2_HA01	GHD_MatBay2_HA01	GHD_MatBay2_HA02	GHD_MatBay2_HA02	GHD_MatBay2_HA02	GHD_MatBay2_HA03	GHD_MatBay2_HA03	GHD_MatBay2_HA03
								Date	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025	02 May 2025
								Field ID	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3	GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5	GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5
								Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
								Depth	0.1 - 0.3	0.3 - 0.5	0.5 - 0.75	0.1 - 0.3	0.3 - 0.5	0.5 - 0.65	0.1 - 0.2	0.2 - 0.5	0.5 - 1
	Unit	EQL	WA DER 1996 (2019) Landfill Uncontaminated Maximum Concentration	WA DER 1996 (2019) Landfill Cl Class 1	WA DER 1996 (2019) Landfill Cl Class 2	WA Solid Waste (2024) Landfill Cl Class 3	WA DER 1996 (2019) Landfill Cl Class 4										
Inorganics																	
% Moisture	%	1							5.2	3.7	3.1	5.0	6.1	4.4	5.7	3.2	2.0
Metals																	
Arsenic	mg/kg	2	100	14	14	140	1,400		<2	<2	<2	<2	<2	<2	<2	<2	<2
Cadmium	mg/kg	0.1	1	0.4	0.4	4	40		<0.1	<0.1	<0.1	0.2	4	0.2	<0.1	<0.1	<0.1
Chromium (III+VI)	mg/kg	1		1.5	1.5	27	270		1.3	1.0	1.4	2.7	2.4	6.2	3.3	6.0	4.5
Copper	mg/kg	1	50	50,000	50,000	10,000	100,000		1.7	1.4	1.2	1.2	1.4	0.3	1.3	1.1	1.1
Lead	mg/kg	1	300	3.4	2.6	43	430		3.4	2.6	4.3	1.9	1.9	7.5	2.3	2.0	1.1
Mercury	mg/kg	0.02	0.5	0.2	0.2	2	20		<0.02	<0.02	0.02	<0.02	0.03	0.04	0.04	0.03	0.02
Nickel	mg/kg	1	10	4	4	60	600		<1	<1	<1	<1	1.5	<1	1.6	1.7	1.1
Zinc	mg/kg	5	120	50,000	50,000	100,000	1,000,000		6.8	<5	10.0	5.0	27	5.8	26	5.9	<5
BTEX																	
Naphthalene (value used in F2 calc)	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	mg/kg	0.1	0.5	0.2	0.2	2	20		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	85	160	160	1,600	16,000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	55	60	60	600	6,000		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (o)	mg/kg	0.1							<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylene (m & p)	mg/kg	0.2							<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Xylene Total	mg/kg	0.3	40	120	120	1,200	12,000		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TPH - NEPM 2013																	
F1 (C6-C10 minus BTEX)	mg/kg	20							<20	<20	<20	<20	<20	<20	<20	<20	<20
C6-C10 Fraction	mg/kg	20	45						<20	<20	<20	<20	<20	<20	<20	<20	<20
F2 (>C10-C16 minus Naphthalene)	mg/kg	50							<50	<50	<50	<50	<50	<50	<50	<50	<50
>C10-C16 Fraction	mg/kg	50	110						<50	<50	<50	<50	<50	<50	<50	<50	<50
F3 (>C16-C34 Fraction)	mg/kg	100	300						<100	<100	<100	<100	<100	<100	<100	<100	<100
F4 (>C34-C40 Fraction)	mg/kg	100							<100	<100	<100	<100	<100	<100	<100	<100	<100
>C10-C40 (Sum of Total)	mg/kg	100							<100	<100	<100	<100	<100	<100	<100	<100	<100
TRH - NEPM 1999																	
C6-C9 Fraction	mg/kg	20							<20	<20	<20	<20	<20	<20	<20	<20	<20
C10-C14 Fraction	mg/kg	20							<20	<20	<20	<20	<20	<20	<20	<20	<20
C15-C28 Fraction	mg/kg	50							<50	<50	<50	<50	<50	<50	<50	<50	<50
C29-C36 Fraction	mg/kg	50							<50	<50	<50	<50	<50	<50	52	<50	<50
>C10-C36 (Sum of Total)	mg/kg	50							<50	<50	<50	<50	<50	<50	52	<50	<50
PAHs - NEPM 2013																	
Acenaphthene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	mg/kg	0.5	1						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo[b+j]fluoranthene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g,h,i)perylene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a,h)anthracene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	mg/kg	0.5	3						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAHs (Sum of total) - Lab calc	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5							0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5							1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PAHs - extended																	
1-methylnaphthalene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-methylnaphthalene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7,12-dimethylbenz(a)anthracene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorinated Hydrocarbons																	
1,1,1,2-tetrachloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-trichloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-tetrachloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-trichloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-dichloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-trichlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-dichlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-chloronaphthalene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorotoluene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromochloromethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
carbon tetrachloride	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
chlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
chloroform	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
chloromethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-dichloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HVOCs																	
1,2,3,4-tetrachlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3,5-tetrachlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4,5-tetrachlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,4-trimethylbenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-Chloronaphthalene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1-naphthylamine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-naphthylamine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-nitroaniline	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3,3-Dichlorobenzidine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-(dimethylamino)-azobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-Bromophenyl phenyl ether	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-chlorophenyl phenyl ether	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Aniline	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzyl chloride	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroethoxy) methane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bis(2-chloroisopropyl) ether	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
bitumens (asphalt)	mg/kg	500							<500	<500	<500	<500	<500	<500	<500	<500	<500
Diphenylamine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachlorocyclopentadiene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexachloroethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-butylamine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosodi-n-propylamine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
N-nitrosopiperidine	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pentachlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs																	
1,1-dichloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-trichloropropane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-dibromoethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichlorobenzene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-butanone (MEK)	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
4-methyl-2-pentanone (MIBK)	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromomethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iodomethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-dichloropropene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	mg/kg	0.5							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Statistics
* A Non Detect Multiplier of 0.5 has been applied.

Lab Report Number			1215966	1215966		1215966	EP2507168		1215966	1215966		1215966	EP2507168	
Field ID			GHD_ELLAM_ST_HA02_0.1	GHD_QC10		GHD_ELLAM_ST_HA02_0.1	GHD-QC14		GHD_ELLAM_ST_HA03_0.1	GHD_QC11		GHD_ELLAM_ST_HA03_0.1	GHD-QC15	
Location Code			GHD_Ellam_St_HA02	GHD_Ellam_St_HA02		GHD_Ellam_St_HA02	GHD_Ellam_St_HA02		GHD_Ellam_St_HA03	GHD_Ellam_St_HA03		GHD_Ellam_St_HA03	GHD_Ellam_St_HA03	
Matrix Type			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Date			01 May 2025	01 May 2025		01 May 2025	01 May 2025		01 May 2025	01 May 2025		01 May 2025	01 May 2025	
Sample Type			Normal	Field_D	RPD	Normal	Interlab_D	RPD	Normal	Field_D	RPD	Normal	Interlab_D	RPD
	Unit	EQL												
Inorganics														
% Moisture	%	1	<1	1.2	18	<1	-	-	1.9	2.6	31	1.9	-	-
Moisture (%)	%	1	-	-	-	-	1.0	-	-	-	-	-	2.1	-
Metals														
Arsenic	mg/kg	2	<2	<2	0	<2	<5	0	<2	<2	0	<2	<5	0
Cadmium	mg/kg	0.1	<0.1	<0.1	0	<0.1	<1	0	<0.1	<0.1	0	<0.1	<1	0
Chromium (III+VI)	mg/kg	1	3.9	3.3	17	3.9	4	3	2.1	4.1	65	2.1	<2	5
Copper	mg/kg	1	<1	1.1	10	<1	<5	0	1.6	2.6	48	1.6	<5	0
Lead	mg/kg	1	4.6	4.0	14	4.6	<5	0	2.7	5.7	71	2.7	<5	0
Mercury	mg/kg	0.02	<0.02	0.02	0	<0.02	<0.1	0	<0.02	0.03	40	<0.02	<0.1	0
Nickel	mg/kg	1	<1	<1	0	<1	<2	0	<1	<1	0	<1	<2	0
Zinc	mg/kg	5	16	8.7	59	16	7	78	8.6	14	48	8.6	8	7
BTEXN														
Naphthalene (value used in F2 calc)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<1	0	<0.5	<0.5	0	<0.5	<1	0
Benzene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.1	0	<0.1	<0.2	0
Toluene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0	<0.1	<0.5	0
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0	<0.1	<0.5	0
Xylene (o)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.1	0	<0.1	<0.5	0
Xylene (m & p)	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.5	0	<0.2	<0.2	0	<0.2	<0.5	0
Xylene Total	mg/kg	0.3	<0.3	<0.3	0	<0.3	<0.5	0	<0.3	<0.3	0	<0.3	<0.5	0
BTEX (Sum of Total) - Lab Calc	mg/kg	0.2	-	-	-	-	<0.2	-	-	-	-	-	<0.2	-
TRH - NEPM 2013														
F1 (C6-C10 minus BTEX)	mg/kg	10	<20	<20	0	<20	<10	0	<20	<20	0	<20	<10	0
C6-C10 Fraction	mg/kg	10	<20	<20	0	<20	<10	0	<20	<20	0	<20	<10	0
F2 (>C10-C16 minus Naphthalene)	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
>C10-C16 Fraction	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
F3 (>C16-C34 Fraction)	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
F4 (>C34-C40 Fraction)	mg/kg	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
>C10-C40 (Sum of Total)	mg/kg	50	<100	<100	0	<100	<50	0	<100	<100	0	<100	<50	0
TRH - NEPM 1999														
C6-C9 Fraction	mg/kg	10	<20	<20	0	<20	<10	0	<20	<20	0	<20	<10	0
C10-C14 Fraction	mg/kg	20	<20	<20	0	<20	<50	0	<20	<20	0	<20	<50	0
C15-C28 Fraction	mg/kg	50	<50	<50	0	<50	<100	0	<50	<50	0	<50	<100	0
C29-C36 Fraction	mg/kg	50	<50	<50	0	<50	<100	0	<50	<50	0	<50	<100	0
C10-C36 (Sum of Total)	mg/kg	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0
PAHs - standard 16														
Acenaphthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Acenaphthylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(a)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo[b+j]fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(g,h,i)perylene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chrysene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Dibenz(a,h)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Fluorene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Indeno(1,2,3-c,d)pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Naphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
PAHs (Sum of total) - Lab calc	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Total 8 PAHs (as BaP TEQ) (half LOR) - Lab Calc	mg/kg	0.5	0.6	0.6	0	0.6	0.6	0	0.6	0.6	0	0.6	0.6	0
Total 8 PAHs (as BaP TEQ)(full LOR) - Lab Calc	mg/kg	0.5	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0
PAHs - extended														
2-methylnaphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
3-methylcholanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
7,12-dimethylbenz(a)anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(b+j+k)fluoranthene	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	<1	-
Chlorinated Hydrocarbons														
1,1,1,2-tetrachloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,1,1-trichloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,1,2,2-tetrachloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,1,2-trichloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,1-dichloroethene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,1-dichloropropene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
1,2,4-trichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2-dibromo-3-chloropropane	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
1,2-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2-dichloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2-dichloropropane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,3-dichloropropane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,4-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
2,2-dichloropropane	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
2-chloronaphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
2-chlorotoluene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
4-chlorotoluene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Bromobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Bromochloromethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Carbon tetrachloride	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chloroform	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chloromethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0
cis-1,2-dichloroethene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Methylene chloride	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Hexachlorobutadiene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Vinyl chloride	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0
SVOCs														
1,2,3,4-tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
1,2,3,5-Tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
1,2,4,5-tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
1,3,5-Trichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
1-Chloronaphthalene	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
1-naphthylamine	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
2-(acetylamino) fluorene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
2-naphthylamine	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
2-nitroaniline	mg/kg	0.5	<0.5	<0.5	0	<0.5	<1.0	0	<0.5	<0.5	0	<0.5	<1.0	0
3,3-Dichlorobenzidine	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
3-nitroaniline	mg/kg	1	-	-	-	-	<1.0	-	-	-	-	-	<1.0	-
4-(dimethylamino) azobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
4-bromophenyl phenyl ether	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
4-chloroaniline	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
4-chlorophenyl phenyl ether	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
4-nitroaniline	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
4-Nitroquinoline-N-oxide	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
5-nitro-o-toluidine	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Aniline	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0

Lab Report Number			1215966	1215966		1215966	EP2507168		1215966	1215966		1215966	EP2507168	
Field ID			GHD_ELLAM_ST_HA02_0.1	GHD_QC10		GHD_ELLAM_ST_HA02_0.1	GHD-QC14		GHD_ELLAM_ST_HA03_0.1	GHD_QC11		GHD_ELLAM_ST_HA03_0.1	GHD-QC15	
Location Code			GHD_Ellam_St_HA02	GHD_Ellam_St_HA02		GHD_Ellam_St_HA02	GHD_Ellam_St_HA02		GHD_Ellam_St_HA03	GHD_Ellam_St_HA03		GHD_Ellam_St_HA03	GHD_Ellam_St_HA03	
Matrix Type			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Date			01 May 2025	01 May 2025		01 May 2025	01 May 2025		01 May 2025	01 May 2025		01 May 2025	01 May 2025	
Sample Type			Normal	Field_D	RPD	Normal	Interlab_D	RPD	Normal	Field_D	RPD	Normal	Interlab_D	RPD
	Unit	EQL												
Azobenzene	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	<1	-
Benzyl chloride	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Bis(2-chloroethoxy) methane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Bis(2-chloroethyl)ether	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Bis(2-chloroisopropyl) ether	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Carbazole	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Chlorobenzilate	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Dibenz(a,j)acridine	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Dibenzofuran	ng/kg	500.000	<500.000	<500.000	0	<500.000	<500.000	0	<500.000	<500.000	0	<500.000	<500.000	0
Diphenylamine	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Hexachlorocyclopentadiene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<2.5	0	<0.5	<0.5	0	<0.5	<2.5	0
Hexachloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Hexachloropropene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Methapyrilene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
N-nitrosodiethylamine	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
N-nitrosodi-n-butylamine	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
N-nitrosodi-n-propylamine	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
N-Nitrosomethylethylamine	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
N-nitrosomorpholine	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
N-nitrosopiperidine	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
N-nitrosopyrrolidine	mg/kg	1	-	-	-	-	<1.0	-	-	-	-	-	<1.0	-
Pentachlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Phenacetin	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
VOCs														
1,1-dichloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2,3-trichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2,3-trichloropropane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,2-dibromoethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
1,3-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
2-butanone (MEK)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0
4-methyl-2-pentanone (MIBK)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0
Acetone	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Allyl chloride	mg/kg	0.5	<0.5	<0.5	0	<0.5	-	-	<0.5	<0.5	0	<0.5	-	-
Bromodichloromethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Bromoform	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chlorodibromomethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Chloroethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0
cis-1,3-dichloropropene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
cis-1,4-Dichloro-2-butene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Dibromomethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Iodomethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Pentachloroethane	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Trichloroethene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Tetrachloroethene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
trans-1,3-dichloropropene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
trans-1,2-dichloroethene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
trans-1,4-Dichloro-2-butene	mg/kg	0.5	-	-	-	-	<0.5	-	-	-	-	-	<0.5	-
Trichlorofluoromethane	mg/kg	0.5	<0.5	<0.5	0	<0.5	<5	0	<0.5	<0.5	0	<0.5	<5	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 30 (1 - 10 x EQL); 30 (10 - 30 x EQL); 30 (> 30 x EQL))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

		Lab Report Number	1215966	1215966	1215966	1215966
		Field ID	GHD-QC06	GHD-QC07	GHD-QC08	GHD-QC09
		Matrix Type	Water	Water	Water	Water
		Date	01 May 2025	01 May 2025	02 May 2025	02 May 2025
		Sample Type	Field blank	Rinsate blank	Field blank	Rinsate blank
	Unit	EQL				
Metals						
Arsenic	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium (III+VI)	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Copper	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	mg/L	0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	0.005	<0.005	<0.005	<0.005	<0.005
BTEXN						
Naphthalene (value used in F2 calc)	µg/L	1	<1	<1	<1	<1
Benzene	µg/L	1	<1	<1	<1	<1
Toluene	µg/L	1	<1	<1	<1	<1
Ethylbenzene	µg/L	1	<1	<1	<1	<1
Xylene (o)	µg/L	1	<1	<1	<1	<1
Xylene (m & p)	µg/L	2	<2	<2	<2	<2
Xylene Total	µg/L	3	<3	<3	<3	<3
TRH - NEPM 2013						
F1 (C6-C10 minus BTEX)	µg/L	20	<20	<20	<20	<20
C6-C10 Fraction	µg/L	20	<20	<20	<20	<20
F2 (>C10-C16 minus Naphthalene)	µg/L	20	<20	<20	<20	<20
>C10-C16 Fraction	µg/L	20	<20	<20	<20	<20
F3 (>C16-C34 Fraction)	µg/L	50	<50	<50	<50	<50
F4 (>C34-C40 Fraction)	µg/L	50	<50	<50	<50	<50
>C10-C40 (Sum of Total)	µg/L	50	<50	<50	<50	<50
TRH - NEPM 1999						
C6-C9 Fraction	µg/L	20	<20	<20	<20	<20
C10-C14 Fraction	µg/L	20	<20	<20	<20	<20
C15-C28 Fraction	µg/L	40	<40	<40	<40	<40
C29-C36 Fraction	µg/L	40	<40	<40	<40	<40
C10-C36 (Sum of Total)	µg/L	40	<40	<40	<40	<40
PAHs - standard 16						
Acenaphthene	µg/L	1	<1	<1	<1	<1
Acenaphthylene	µg/L	1	<1	<1	<1	<1
Anthracene	µg/L	1	<1	<1	<1	<1
Benz(a)anthracene	µg/L	1	<1	<1	<1	<1
Benzo(a)pyrene	µg/L	1	<1	<1	<1	<1
Benzo[b+j]fluoranthene	µg/L	1	<1	<1	<1	<1
Benzo(k)fluoranthene	µg/L	1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	1	<1	<1	<1	<1
Chrysene	µg/L	1	<1	<1	<1	<1
Dibenz(a,h)anthracene	µg/L	1	<1	<1	<1	<1
Fluoranthene	µg/L	1	<1	<1	<1	<1
Fluorene	µg/L	1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1	<1	<1	<1
Naphthalene	µg/L	1	<1	<1	<1	<1
Phenanthrene	µg/L	1	<1	<1	<1	<1
Pyrene	µg/L	1	<1	<1	<1	<1
PAHs (Sum of total) - Lab calc	µg/L	1	<1	<1	<1	<1
Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	µg/L	1	<1	<1	<1	<1
PAHs - extended						
2-methylnaphthalene	µg/L	5	<5	<5	<5	<5
3-methylcholanthrene	µg/L	5	<5	<5	<5	<5
7,12-dimethylbenz(a)anthracene	µg/L	5	<5	<5	<5	<5
Chlorinated Hydrocarbons						
1,1,1,2-tetrachloroethane	µg/L	1	<1	<1	<1	<1
1,1,1-trichloroethane	µg/L	1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	1	<1	<1	<1	<1
1,1,2-trichloroethane	µg/L	1	<1	<1	<1	<1
1,1-dichloroethene	µg/L	1	<1	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	5	<5	<5	<5	<5
1,2-dichlorobenzene	µg/L	1	<1	<1	<1	<1
1,2-dichloroethane	µg/L	1	<1	<1	<1	<1
1,2-dichloropropane	µg/L	1	<1	<1	<1	<1
1,3-dichloropropane	µg/L	1	<1	<1	<1	<1
1,4-dichlorobenzene	µg/L	1	<1	<1	<1	<1
2-chloronaphthalene	µg/L	5	<5	<5	<5	<5
4-chlorotoluene	µg/L	1	<1	<1	<1	<1
Bromobenzene	µg/L	1	<1	<1	<1	<1
Bromochloromethane	µg/L	1	<1	<1	<1	<1
Carbon tetrachloride	µg/L	1	<1	<1	<1	<1
Chlorobenzene	µg/L	1	<1	<1	<1	<1
Chloroform	µg/L	5	<5	<5	<5	<5
Chloromethane	µg/L	5	<5	<5	<5	<5
cis-1,2-dichloroethene	µg/L	1	<1	<1	<1	<1
Methylene chloride	µg/L	5	<5	<5	<5	<5
Hexachlorobutadiene	µg/L	5	<5	<5	<5	<5
Vinyl chloride	µg/L	5	<5	<5	<5	<5
SVOCs						
1,2,3,4-tetrachlorobenzene	µg/L	5	<5	<5	<5	<5
1,2,3,5-Tetrachlorobenzene	µg/L	5	<5	<5	<5	<5
1,2,4,5-tetrachlorobenzene	µg/L	5	<5	<5	<5	<5
1,3,5-Trichlorobenzene	µg/L	5	<5	<5	<5	<5
1-Chloronaphthalene	µg/L	5	<5	<5	<5	<5
1-naphthylamine	µg/L	5	<5	<5	<5	<5
2-naphthylamine	µg/L	5	<5	<5	<5	<5
2-nitroaniline	µg/L	5	<5	<5	<5	<5
3,3-Dichlorobenzidine	µg/L	5	<5	<5	<5	<5
4-(dimethylamino) azobenzene	µg/L	5	<5	<5	<5	<5
4-bromophenyl phenyl ether	µg/L	5	<5	<5	<5	<5
4-chlorophenyl phenyl ether	µg/L	5	<5	<5	<5	<5
Aniline	µg/L	5	<5	<5	<5	<5
Benzyl chloride	µg/L	5	<5	<5	<5	<5
Bis(2-chloroethoxy) methane	µg/L	5	<5	<5	<5	<5
Bis(2-chloroisopropyl) ether	µg/L	5	<5	<5	<5	<5
Dibenz(a,j)acridine	µg/L	5	<5	<5	<5	<5
Dibenzofuran	µg/L	5	<5	<5	<5	<5
Diphenylamine	µg/L	5	<5	<5	<5	<5
Hexachlorocyclopentadiene	µg/L	5	<5	<5	<5	<5
Hexachloroethane	µg/L	5	<5	<5	<5	<5
N-nitrosodi-n-butylamine	µg/L	5	<5	<5	<5	<5
N-nitrosodi-n-propylamine	µg/L	5	<5	<5	<5	<5
N-nitrosopiperidine	µg/L	5	<5	<5	<5	<5
Pentachlorobenzene	µg/L	5	<5	<5	<5	<5
VOCs						
1,1-dichloroethane	µg/L	1	<1	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	5	<5	<5	<5	<5
1,2,3-trichloropropane	µg/L	1	<1	<1	<1	<1
1,2-dibromoethane	µg/L	1	<1	<1	<1	<1
1,3-dichlorobenzene	µg/L	1	<1	<1	<1	<1
2-butanone (MEK)	µg/L	5	<5	<5	<5	<5
4-methyl-2-pentanone (MIBK)	µg/L	5	<5	<5	<5	<5
Acetone	µg/L	5	<5	<5	<5	<5
Allyl chloride	µg/L	1	<1	<1	<1	<1
Bromodichloromethane	µg/L	1	<1	<1	<1	<1
Bromoform	µg/L	1	<1	<1	<1	<1
Chlorodibromomethane	µg/L	1	<1	<1	<1	<1
Chloroethane	µg/L	5	<5	<5	<5	<5
cis-1,3-dichloropropene	µg/L	1	<1	<1	<1	<1
Dibromomethane	µg/L	1	<1	<1	<1	<1
Iodomethane	µg/L	1	<1	<1	<1	<1
Trichloroethene	µg/L	1	<1	<1	<1	<1
Tetrachloroethene	µg/L	1	<1	<1	<1	<1
trans-1,3-dichloropropene	µg/L	1	<1	<1	<1	<1
trans-1,2-dichloroethene	µg/L	1	<1	<1	<1	<1
Trichlorofluoromethane	µg/L	5	<5	<5	<5	<5

Lab Report Number	1215966
Field ID	QC13
Matrix Type	Soil
Date	05 May 2025
Sample Type	Transport Blank

	Unit	EQL	
Inorganics			
% Moisture_	%	1	**6.3**
BTEXN			
Benzene	mg/kg	0.1	<0.1
Toluene	mg/kg	0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1
Xylene Total	mg/kg	0.2	<0.2
Chlorinated Hydrocarbons			
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.2	<0.2
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1
1,1-dichloroethene	mg/kg	0.2	<0.2
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1
cis-1,2-dichloroethene	mg/kg	0.1	<0.1
Methylene chloride	mg/kg	10	<10
Hexachlorobutadiene	mg/kg	0.1	<0.1
Vinyl chloride	mg/kg	0.2	<0.2
SVOCs			
1,3,5-Trichlorobenzene	mg/kg	0.1	<0.1
VOCs			
1,1-dichloroethane	mg/kg	0.2	<0.2
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1
MTBE	mg/kg	0.1	<0.1
Trichloroethene	mg/kg	0.1	<0.1
Tetrachloroethene	mg/kg	0.1	<0.1
trans-1,2-dichloroethene	mg/kg	0.2	<0.2

Appendix E

Certificate of title

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: - Various Parcels at Matilda Bay, WA

Description: - Sections of Hackett Drive, Lot 13177 D.P. 189686, Lot 11298 D.P. 189686, Lot 14555 D.P. 32409, Lot 300 D.P. 47450, Lot 10605 D.P. 186614 & Lot 2885 D.P. 230371

As regards to the part numbered 1 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
31.10.1919	Crown Reserve No. 17331 – Site for Main Buildings of the University of Western Australia	Government Gazette published 31.10.1919 Folio 1929
11.08.1921	University of Western Australia - Lease for 999 Years (Now Cancelled)	Crown Lease 1455/1921 (Lease No. 652/42)
30.03.1979	Notification of Resumption of Land for New Road Hackett Drive - Road No. 16194 (No current title for this land)	Government Gazette published 30.03.1979 Folios 879 & 880

 # Denotes current registered proprietor

Leases: - NIL

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards to the part numbered 2 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	Please note this parcel was formerly part of Hackett Drive.	
28.09.1990	Notification of closure of portion of Hackett Drive.	Government Gazette published 28.09.1990 Folios 5001 & 5002
22.03.1991	Re Gazettal of Declaration of closure of portion of Hackett Drive.	Government Gazette published 22.03.1991 Folio 1226
29.02.2000 (2000 to Date)	# The State of Western Australia - Addition to Crown Reserve No. 17331 – Site for Main Buildings of the University of Western Australia Crown Lease 1455/1921 (Lease No. 652/42) registered 11.08.1921 to University of Western Australia for 999 Years (Now Cancelled)	Government Gazette published 31.10.1919 Folio 1929 Now Volume 3112 Folio 303 (Crown Land Record)

 # Denotes current registered proprietor

Leases, excluding premises: -

- 05.08.2002 (I195321): Lease.
  - 10.11.2011 (L780595): Variation of Lease.

Easements: -

- 20.11.2018 (O033040): Easement to electricity networks corporation for electricity supply purpose.
- 05.12.2018 (O045120): Easement to conservation and land management executor body for access purposes.
- 27.11.2020 (O567357): Easement to water corporation for pressure main purposes.
- 27.11.2020 (O567358): Easement to water corporation for stormwater drainage purposes.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards to the part numbered 3 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	Please note this parcel was formerly part of Hackett Drive.	
31.08.1979	Crown Reserve No. 36225 for Pipeline	Government Gazette published 31.08.1979 Folio 2620
28.09.1990	Notification of closure of portion of Hackett Drive.	Government Gazette published 28.09.1990 Folios 5001 & 5002
22.03.1991	Re Gazettal of Declaration of closure of portion of Hackett Drive.	Government Gazette published 22.03.1991 Folio 1226
31.08.1979 (1979 to Date)	# The State of Western Australia - Crown Reserve No. 36225 for Pipeline - Various Vesting Orders from 1979 to 1998 - Vesting Management Order to Water Corporation dated 11.11.1998	Volume 3048 Folio 146 (Crown Land Record) Then Volume 3000 Folio 584 (Crown Land Record) Now Volume 3140 Folio 662 (Crown Land Record)

 # Denotes current registered proprietor

Leases: - NIL

Easements: -

- 05.12.2018 (O045120): Easement to conservation and land management executor body for access purposes

As regards to the part numbered 4 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
23.01.1920	Crown Reserve No. 17375 for Recreation	Government Gazette published 23.01.1920 Folio 142
	Various appointments of Trustees and Vesting Orders from 1920 to 2001	
23.01.1920 (1920 to Date)	# The State of Western Australia – Department of Biodiversity, Conservation and Attractions (SCLM) - Crown Reserve No. 17375 for Recreation Vesting Management Order to Conservation Commission of Western Australia dated 17.12.2002	Government Gazette published 23.01.1920 Folio 142 Then Volume 3102 Folio 912 (Crown Land Record) Now Volume 3128 Folio 401 (Crown Land Record)

 # Denotes current registered proprietor

Leases, excluding premises: -

- Please refer to current title search for various leases and sub-leases affecting site.

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards to the part numbered 5 & 6 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
To Date	# The State of Western Australia – Department of Biodiversity, Conservation and Attractions (SCLM) - Crown Reserve No. 48325 for the Purpose of Protection and Enhancement of the Ecological and Community Benefits and Amenity of the Wean and Canning Rivers - Vesting Management Order to Swan River Trust dated 28.07.2008	Volume 3151 Folio 547 (Crown Land Record)

 # Denotes current registered proprietor

Leases, excluding premises: -

- Please refer to current title search for various leases and sub-leases affecting site.

Easements: - NIL

As regards to the part numbered 7 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
23.01.1920	Crown Reserve No. 17375 for Recreation	Government Gazette published 23.01.1920 Folio 142
	Various appointments of Trustees and Vesting Orders from 1920 to 2001	
23.01.1920 (1920 to Date)	# The State of Western Australia – Department of Biodiversity, Conservation and Attractions (SCLM) - Crown Reserve No. 17375 for Recreation - Vesting Management Order to Conservation Commission of Western Australia dated 17.12.2002	Government Gazette published 23.01.1920 Folio 142 Then Volume 3102 Folio 912 (Crown Land Record) Now Volume 3128 Folio 401 (Crown Land Record)

 # Denotes current registered proprietor

Leases, excluding premises: -

- Please refer to current title search for various leases and sub-leases affecting site.

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards to the part numbered 8 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
23.01.1920	Crown Reserve No. 17375 for Recreation	Government Gazette published 23.01.1920 Folio 142
	Various appointments of Trustees and Vesting Orders from 1920 to 1985	
03.05.1985 (1985 to Date)	# The State of Western Australia - Crown Reserve No. 39045 for the Purpose of Parking - Vesting Management Order to City of Subiaco (Government Gazette published 03.05.1985 Folios 1516 & 1517)	Government Gazette published 03.05.1985 Folio 1543 Now Volume 3147 Folio 25 (Crown Land Record)

 # Denotes current registered proprietor

Leases: - NIL

Easements: - NIL

As regards to the part numbered 9 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	Hackett Drive - Road No. 16194 (No current title for this land)	

 # Denotes current registered proprietor

Leases: - NIL

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards to the part numbered 10 on attached supplied site diagram: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
31.10.1919 (1919 to Date)	# The State of Western Australia - Crown Reserve No. 17331 – Site for Main Buildings of the University of Western Australia - Crown Lease 1455/1921 (Lease No. 652/42) registered 11.08.1921 to University of Western Australia for 999 Years (Now Cancelled)	Government Gazette published 31.10.1919 Folio 1929 Then Volume 3044 Folio 406 (Crown Land Record) Then Volume 3000 Folio 117 (Crown Land Record) Then Volume 3053 Folio 626 (Crown Land Record) Now Volume 3143 Folio 31 (Crown Land Record)

 # Denotes current registered proprietor

Leases, excluding premises: -

- 05.08.2002 (I195321): Lease.
  - 10.11.2011 (L780595): Variation of Lease.
- Please refer to current title search for various leases and sub-leases affecting site.

Easements: - NIL

Yours Sincerely,
Taylor Wilson
12th May 2025

Paper Size ISO A4

0 10 20 30 40

Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 50

N

GHD

Public Transport Authority of Western Australia
Swan River Ferry Expansion
PSI & Swan River WQ Monitoring

Project No. **12658388**
Revision No. **B**
Date **21/04/2025**

Matilda Bay Site

FIGURE 3

\\ghdnet\ghd\AU\Perth\Projects\61\12658388\GIS\Maps\Working\12658388 - Swan River Ferry Expansion\12658388_Working.aprx - 12658388_003_MatildaBaySite_RevB
Print date: 21 Apr 2025 - 09:21

Data source: Landgate_Subscription_Imagery\WANow. Created by: kmacaspac

KINGS PARK

MATILDA BAY

SWAN RIVER

HARDY ROAD

STREET

MEGALONG

AVENUE

WINTHROP

PARK

ROAD

MOUNTS

BAY

AVENUE

CRAWLEY

PARK

AVENUE

WINGFIELD

PARK

AVENUE

KINGS

PARK

AVENUE

FORREST

DRIVE

O.P. DRIVE

HACKETT

CS PLAN

PLAN

COMPILED

DIA

F.B.

INDEX PLAN - HANDLE WITH CARE

SWAN LOCATIONS
PERTH SUBURBAN LOTS

ADJOINING SHEETS

10-23	11-23	12-23
10-22	11-22	
10-21	11-21	

SCALE 1:2000

MICRO FILMED

OFFICE OF TITLES
WESTERN AUSTRALIA

LAND DISTRICT SWAN

LOCAL AUTHORITY CITY OF SUBIACO

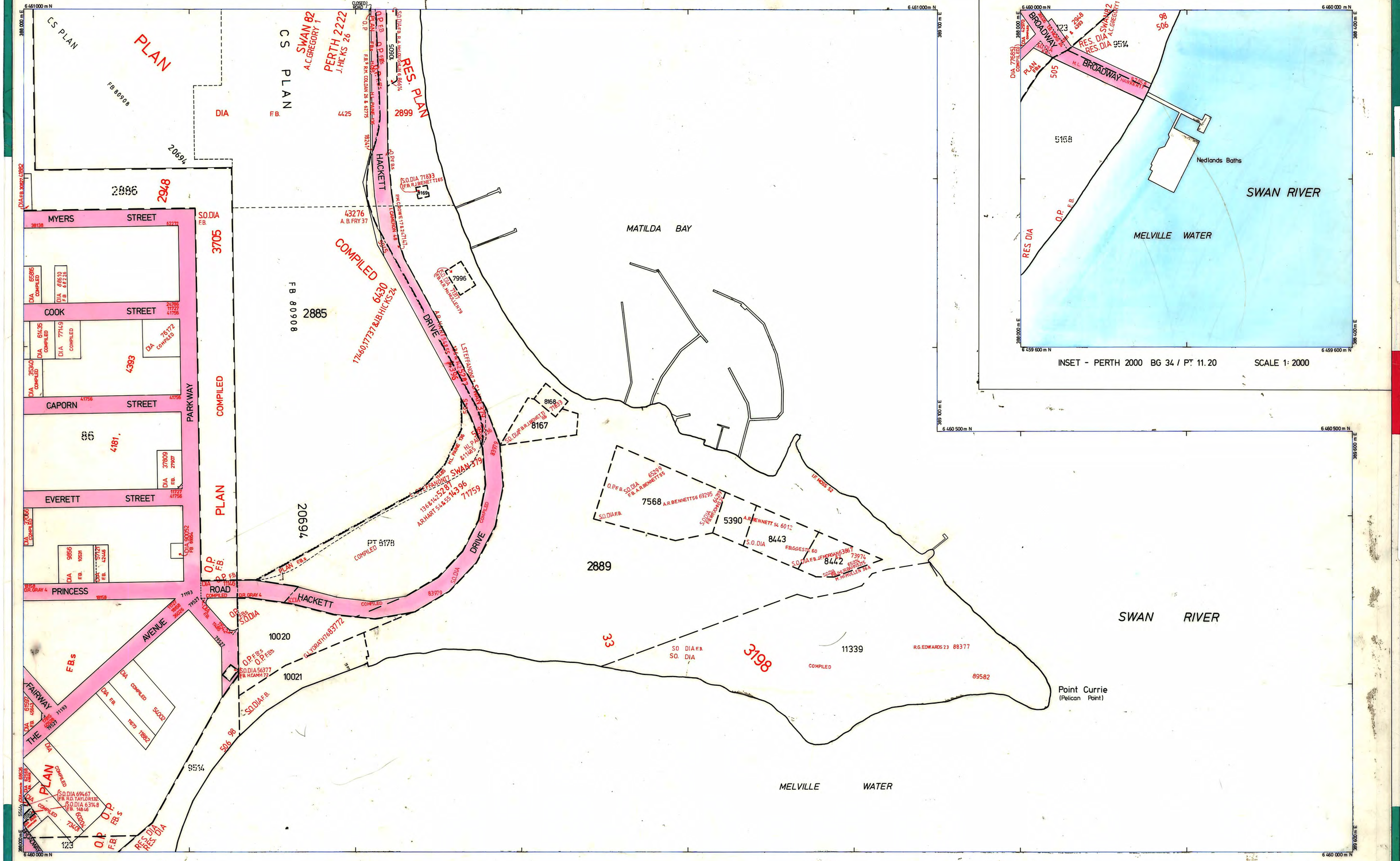
LOCALITY CRAWLEY

PERTH 2000
BG34/11/22

IP (2) BG34 11 22

LAST UPDATED 15/03/2002

BG34 (2) 11.22
SURVEY INDEX PLAN



AGD 84

INDEX PLAN HANDLE WITH CARE

ADJOINING SHEETS

10·22	11·22	
10·21	11·21	
10·20	(PT 11·20)	

SCALE 1 : 2000

OFFICE OF TITLES
WESTERN AUSTRALIA

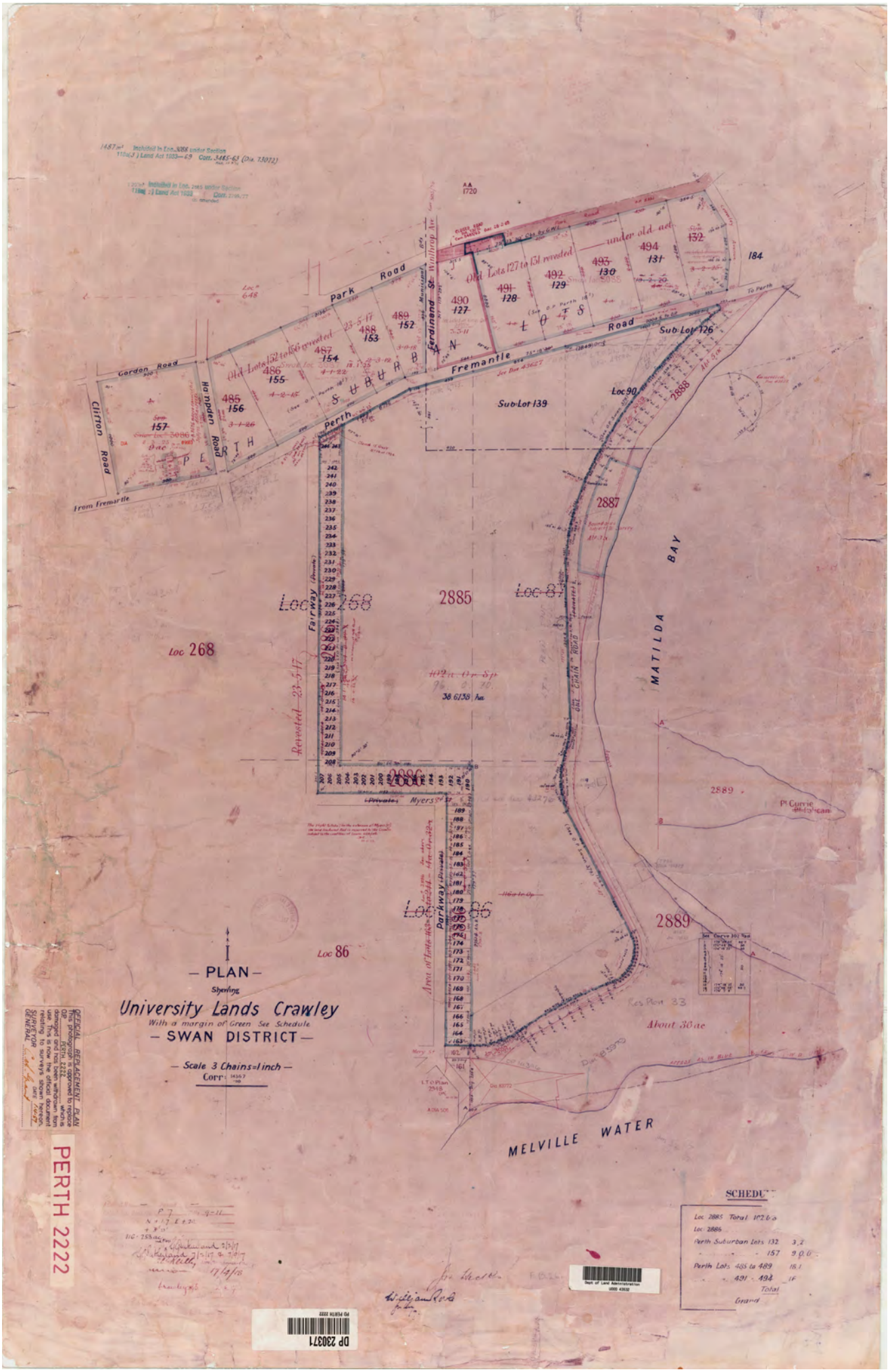
LAND DISTRICT	SWAN
LOCAL AUTHORITY	CITY OF NEDLANDS CITY OF SUBIACO
LOCALITY	CRAWLEY & NEDLANDS

PERTH 2000
BG.34 / 11.21
AND PT. 11.20

IP (2) BG34 11 21

LAST UPDATED 15/03/2002

BG34 (2) 11.21
SURVEY INDEX PLAN



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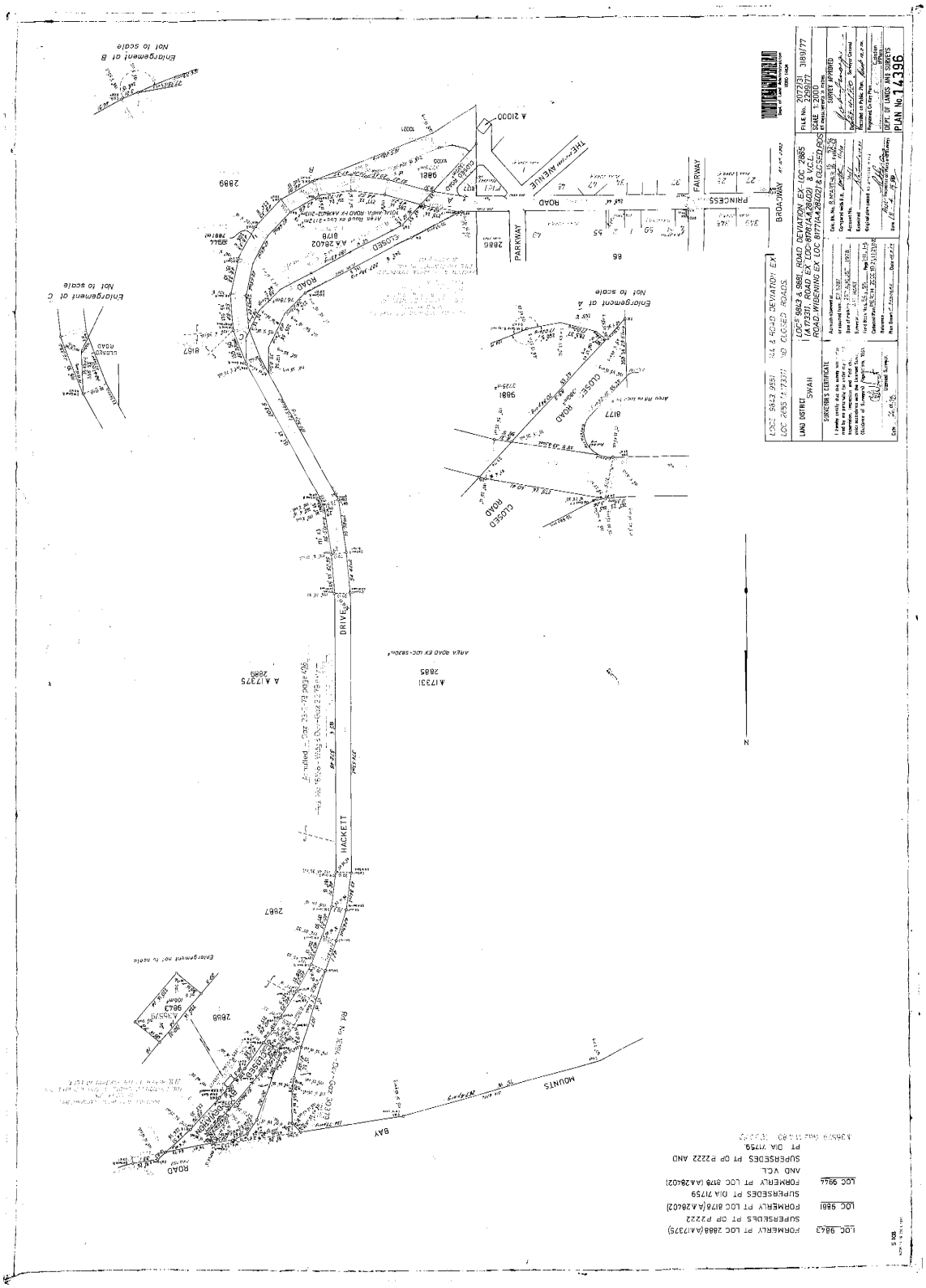
Landgate
www.landgate.wa.gov.au



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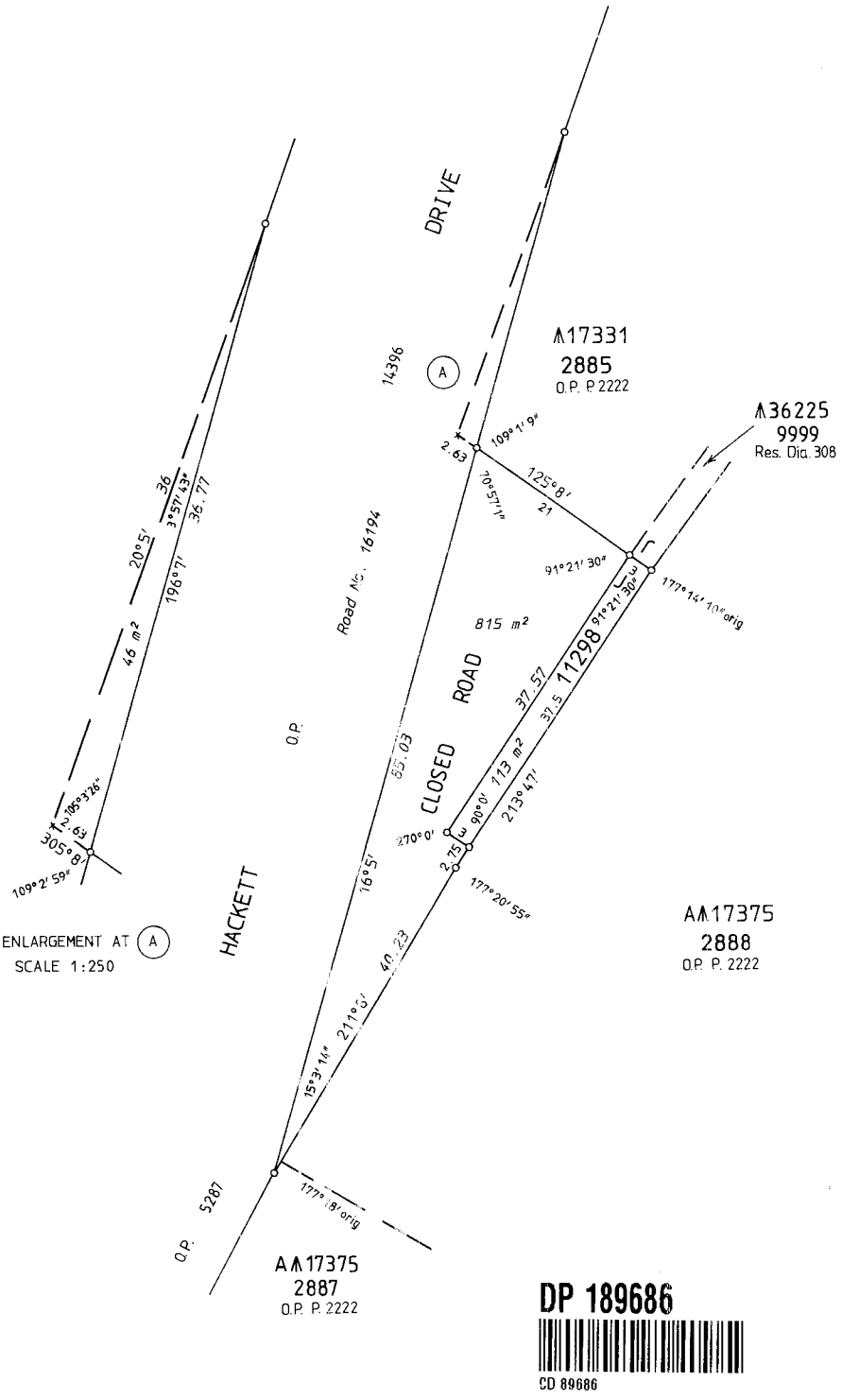
Landgate
www.landgate.wa.gov.au

CLOSED ROAD - Gaz: 28.9.90 pg. 5002
- Regaz 22.3.91 P1226
Rd. 16194 (Wdg) - Gaz: 7.2.92 pg. 711

AMENDMENTS



DP 189686

CD 89686

LAND DISTRICT SWAN	ROAD CLOSURE, LOC 11298 & ROAD WIDENING (LOCATION 13177) EX LOC 2885 (A17331)	FILE No. 2299/977 SCALE 1:500 All measurements in metres

SURVEYOR'S CERTIFICATE

I hereby certify that this survey was performed by me personally (or under my personal supervision, inspection and field check), in strict accord-ance with the Licensed Surveyors (Guidance of Surveyors) Regulations.

Licensed Surveyor.
Date 10.5.91

Azimuth observed at ....
or assumed from O.P. 14396
Surveyor E.J. HORLIN
Field Book No. 196
Page 1 - 2
Public Plan PERTH 2000 11.22
Reference ....
Index Plan PERTH BG34 (2) 11.22

Calc. Bk. No. S.RAINE Fol ....
Compared with F.B. ....
Examined. ... 19/8/90
In order for Dealings subject to:
1. Redesignation of A
2. amalgamation
Date 4-1-99

APPROVED
Authorized Land Officer
Date 21.1.99
Recorded on Public Plan G.D. 72.92
Registered R.F.P. 2/8/90
On Index Plan PERTH BG34 (2) 11.22
DEPT. OF LAND ADMINISTRATION
DIAGRAM 89686

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Landgate
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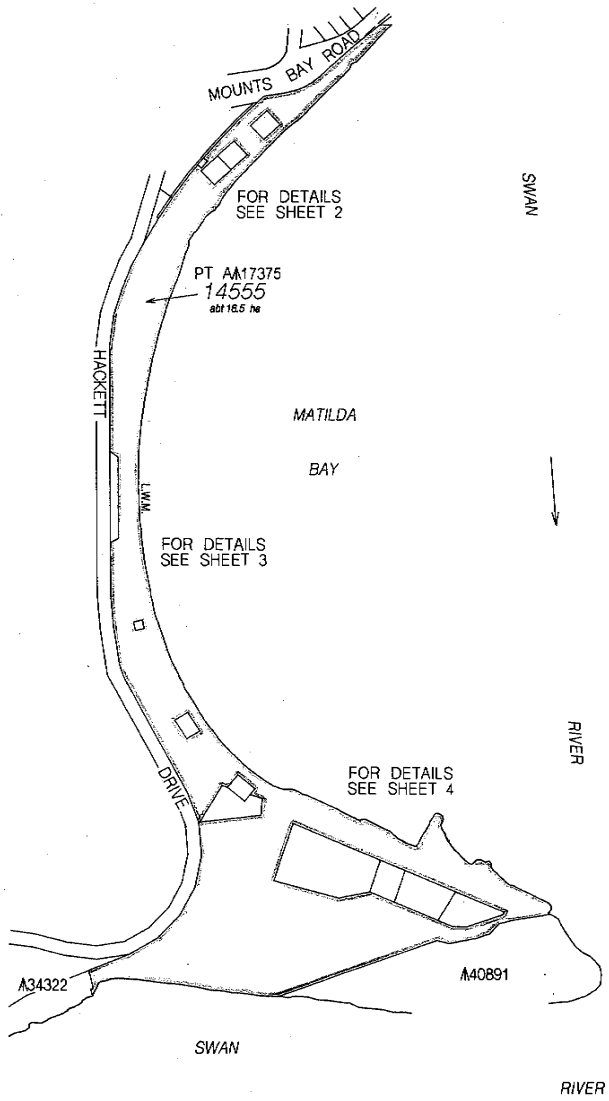
LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813
www.landgate.wa.gov.au

EDIVER	AMENDMENT	BY	SIGNATURE	DATE	APPROVED Authorized Land Officer Date



WATERLINES SHOWN HEREON DO NOT NECESSARILY DEPICT AN EXACT CADASTRAL BOUNDARY

DP 32409 (01)

TYPE CROWN

PURPOSE SUBDIVISION

PLAN OF

LOT 14555

DISTRICT SWAN
TOWNSITE
DOLA FILE 292/920 V6
LOCAL AUTHORITY CITY OF NEDLANDS
LOCALITY NEDLANDS

FORMER TENURE
SWAN LOCATIONS 2887, 2885 & 2889
CP PERTH 2222
CLR 3102/912

ON
INDEXES BG34 (2) 11.21 & 11.22

REFERENCE

SCALE: ALL DISTANCES ARE IN METRES 1:5000 (0 50 100 150 200 250)

SUBJECT TO SURVEY
NOT FOR ALIENATION PURPOSES

SURVEY FIRM DOLA - A.S. GREEN - 10/6/2002

LODGED DATE 20.6.02
FEE PAID N/C
ASSESS No.

TYPE OF VALIDATION
FULL AUDIT ✓
LEGAL COMPONENT
CERTIFIED CORRECT M Smith 28/6/02 Manager Statutory Services

IN ORDER FOR DEALINGS

SUBJECT TO

REDESCRIPTION OF RESERVE A 17375

28/6/2002
FOR AUTHORIZED LAND OFFICER DATE

APPROVED

APPROVED 17.12.2002
AUTHORIZED LAND OFFICER DATE

DOLA
Department of LAND ADMINISTRATION

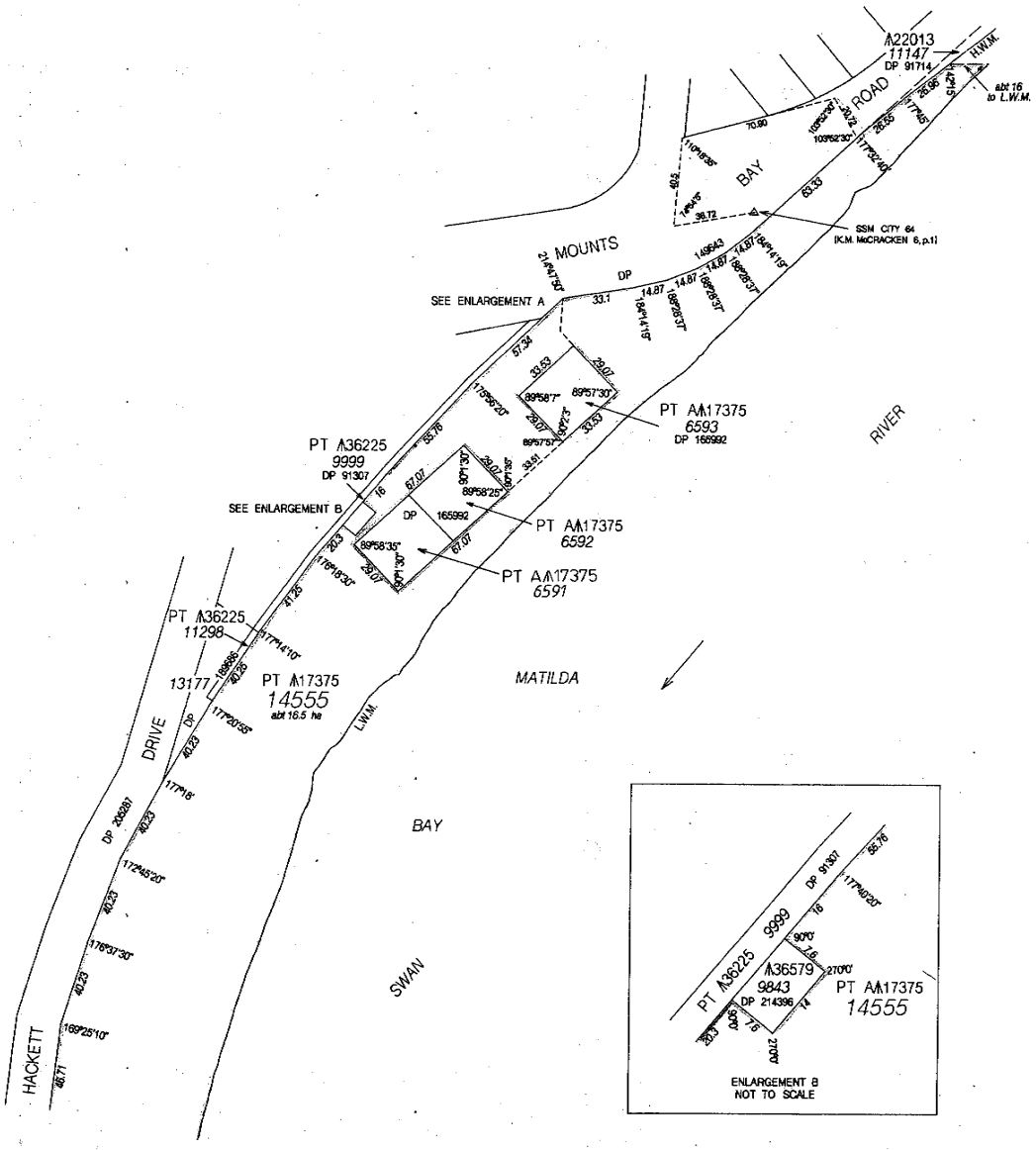
DEPOSITED PLAN

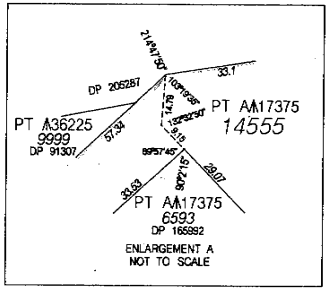
32409

SHEET 1 OF 4
EDITION 1 VERSION 1

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813
www.landgate.wa.gov.au

FOR HEADING SEE SHEET 1





SCALE: ALL DISTANCES ARE IN METRES 1:1500

0 15 30 45 60 75

DOLA
Department of LAND ADMINISTRATION

DEPOSITED PLAN

32409

SHEET 2 OF 4
EDITION 1 VERSION 1

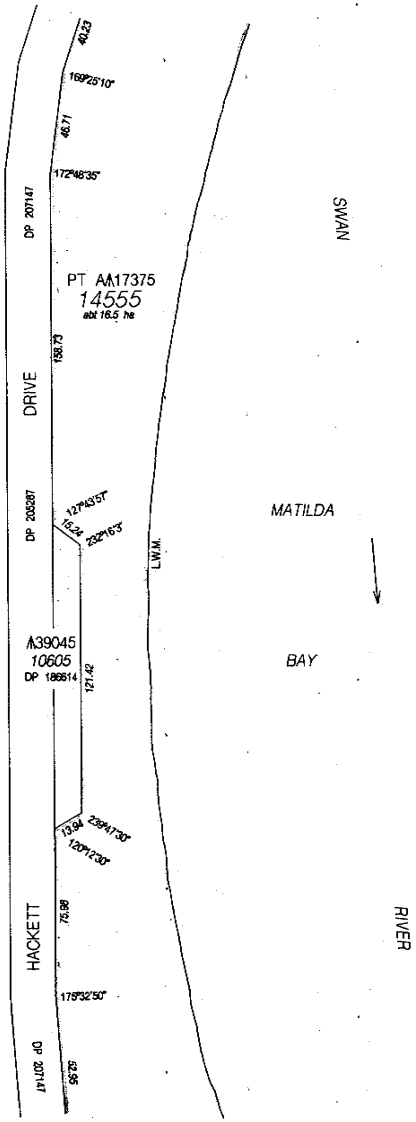
DP 32409 (02)

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813
www.landgate.wa.gov.au

DP 32409 (03)

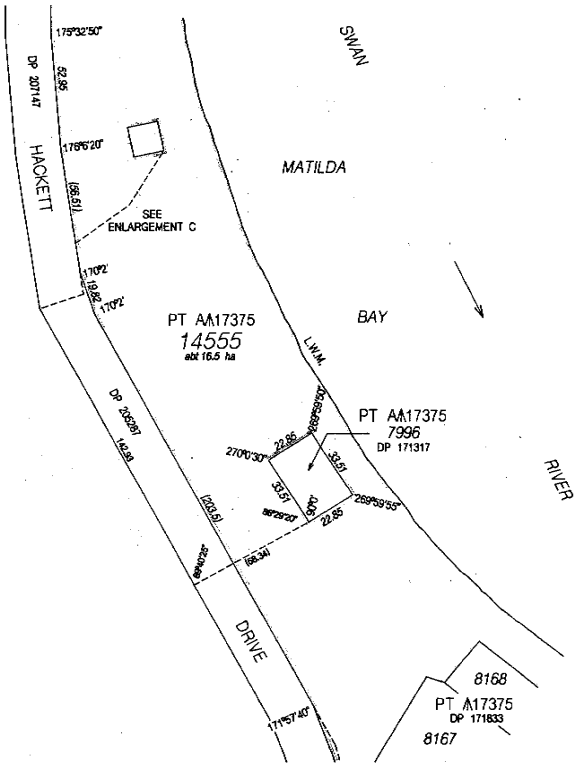
FOR HEADING SEE SHEET 1

JOINS SHEET 2

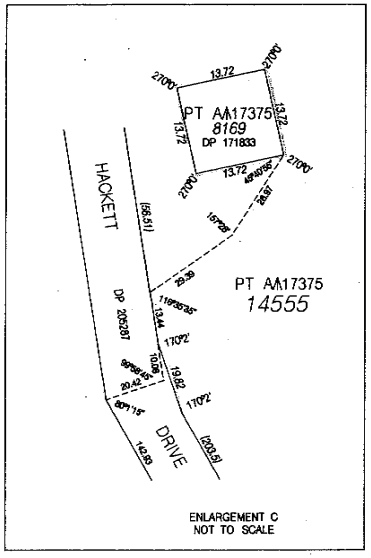


JOINS ABOVE

JOINS BELOW



JOINS SHEET 4



SCALE: ALL DISTANCES ARE IN METRES 1:1500

0 15 30 45 60 75

DOLA
Department of LAND ADMINISTRATION

DEPOSITED PLAN

32409

SHEET 3 OF 4
EDITION 1 VERSION 1

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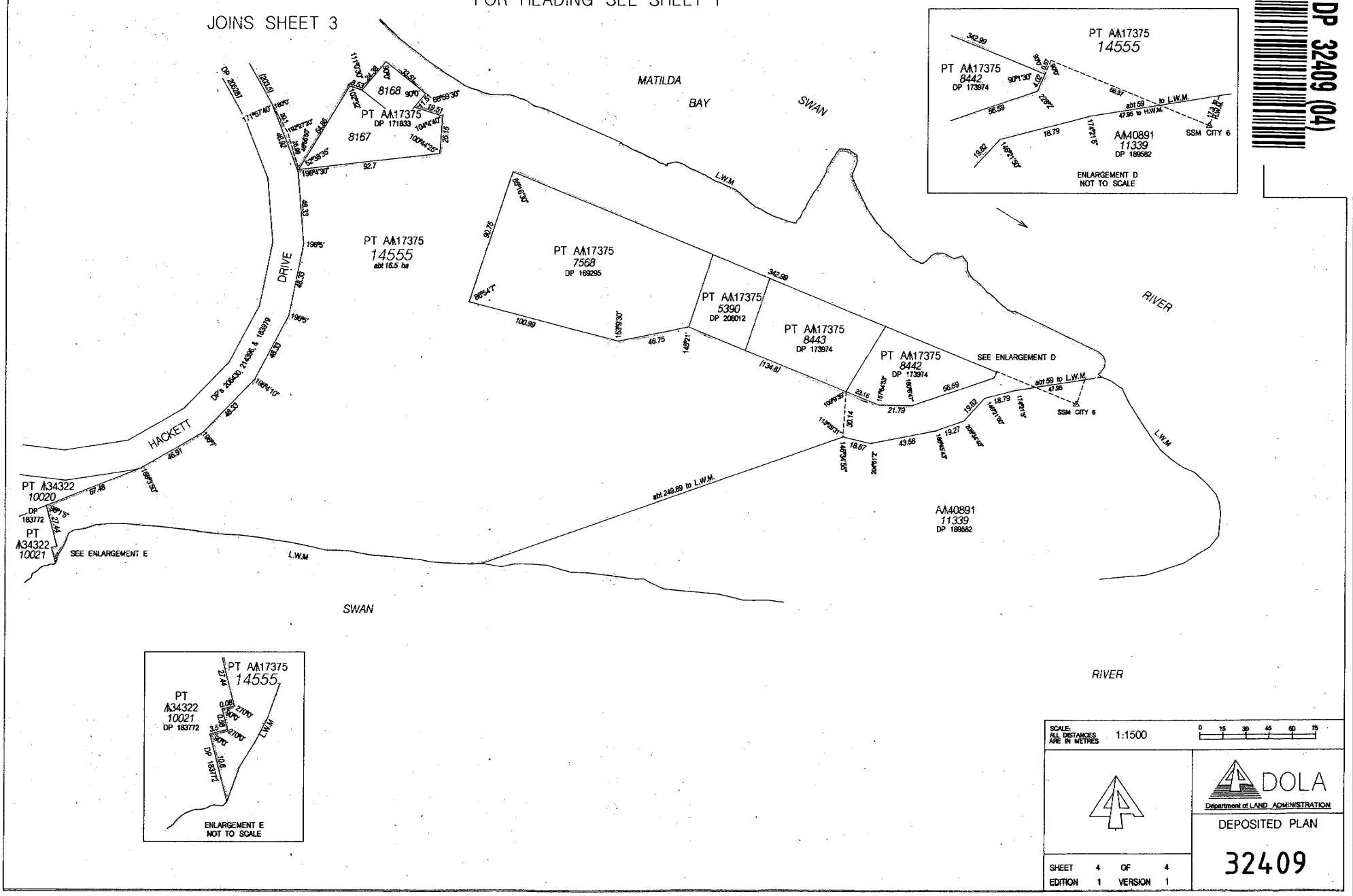
FOR HEADING SEE SHEET 1

JOINS SHEET 3



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DOLA
Department of LAND ADMINISTRATION

DEPOSITED PLAN
32409

SHEET 4 OF 4
EDITION 1 VERSION 1

DP 32409 (04)

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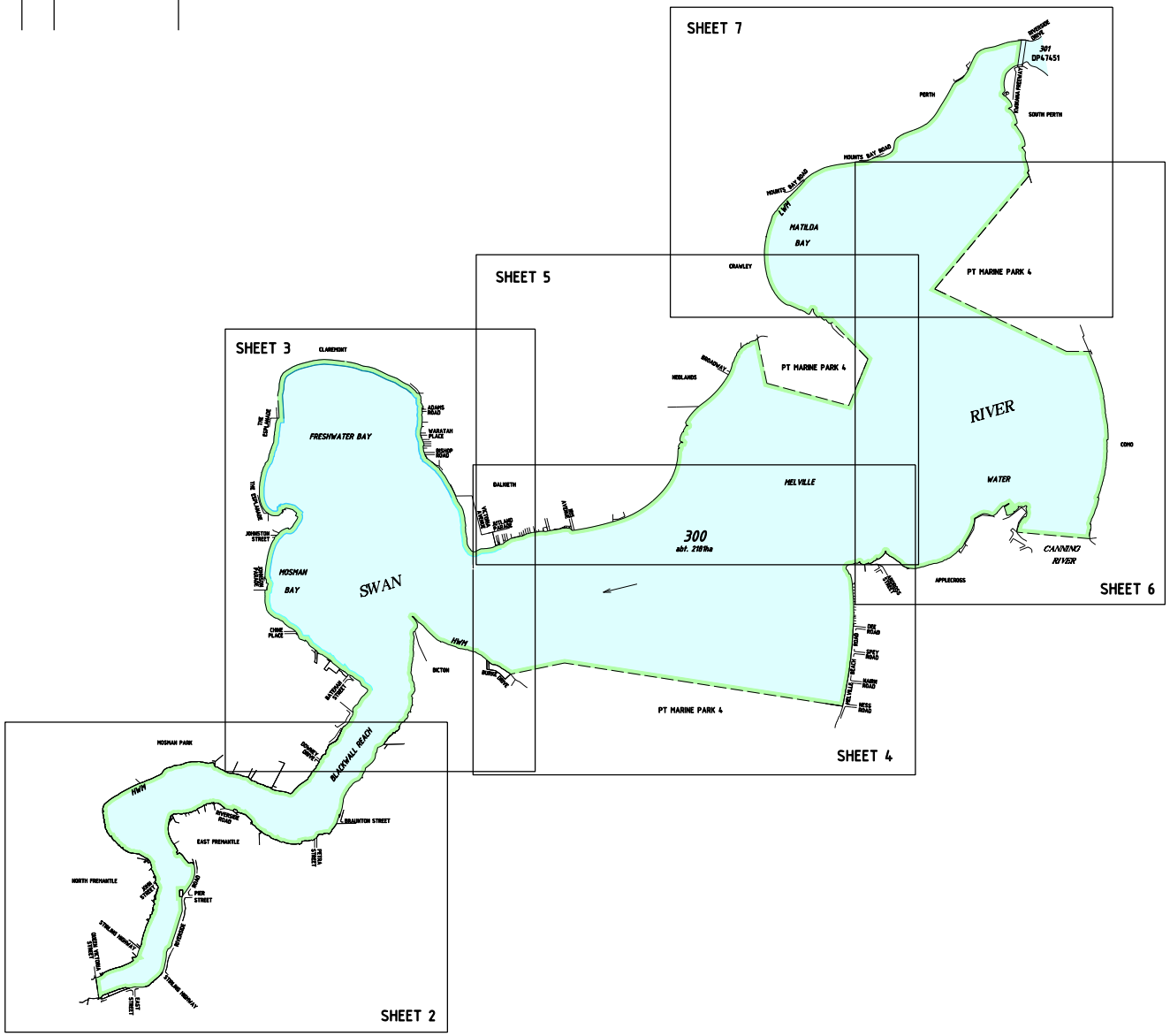
ED/VER	AMENDMENT	BY	SIGNATURE	DATE	APPROVED Authorised Land Officer Date

HELD BY DLI IN DIGITAL FORM ONLY



TYPE / PURPOSE	CROWN / SUBDIVISION	FORMER TENURE U.C.L.	SCALE @A1 ALL DISTANCES ARE IN METRES 1:20000 (0 200 400 600 800 1000)
PLAN OF	LOT 300	ON	SUBJECT TO SURVEY NOT FOR ALIENATION PURPOSES
DISTRICT: SWAN & CANNING; TOWNSITE		REFERENCE	
FILE: 01746-2005-01; LOCALITY: SWAN RIVER			
LOCAL AUTHORITY			SURVEY FIRM: DLI - ANTHONY EASTCOTT

LODGED	TYPE OF VALIDATION	IN ORDER FOR DEALINGS	
DATE 16/12/2005	FULL AUDIT PWK	SUBJECT TO PROCLAMATION OF BILL	Department of Land Information Government of Western Australia
FEE PAID NA	LEGAL		DEPOSITED PLAN
ASSESS No. NA	CERTIFIED CORRECT Manager Cadastral Survey	FOR AUTHORIZED LAND OFFICER 16/12/2005 DATE	47450
		APPROVED AUTHORIZED LAND OFFICER 25/9/07 DATE	SHEET 1 OF 7 EDITION 1 VERSION 1

WATERLINES SHOWN HEREON DO NOT NECESSARILY DEPICT AN EXACT CADASTRAL BOUNDARY
DATA DERIVED FROM THE SCDB - 28 APRIL 2005

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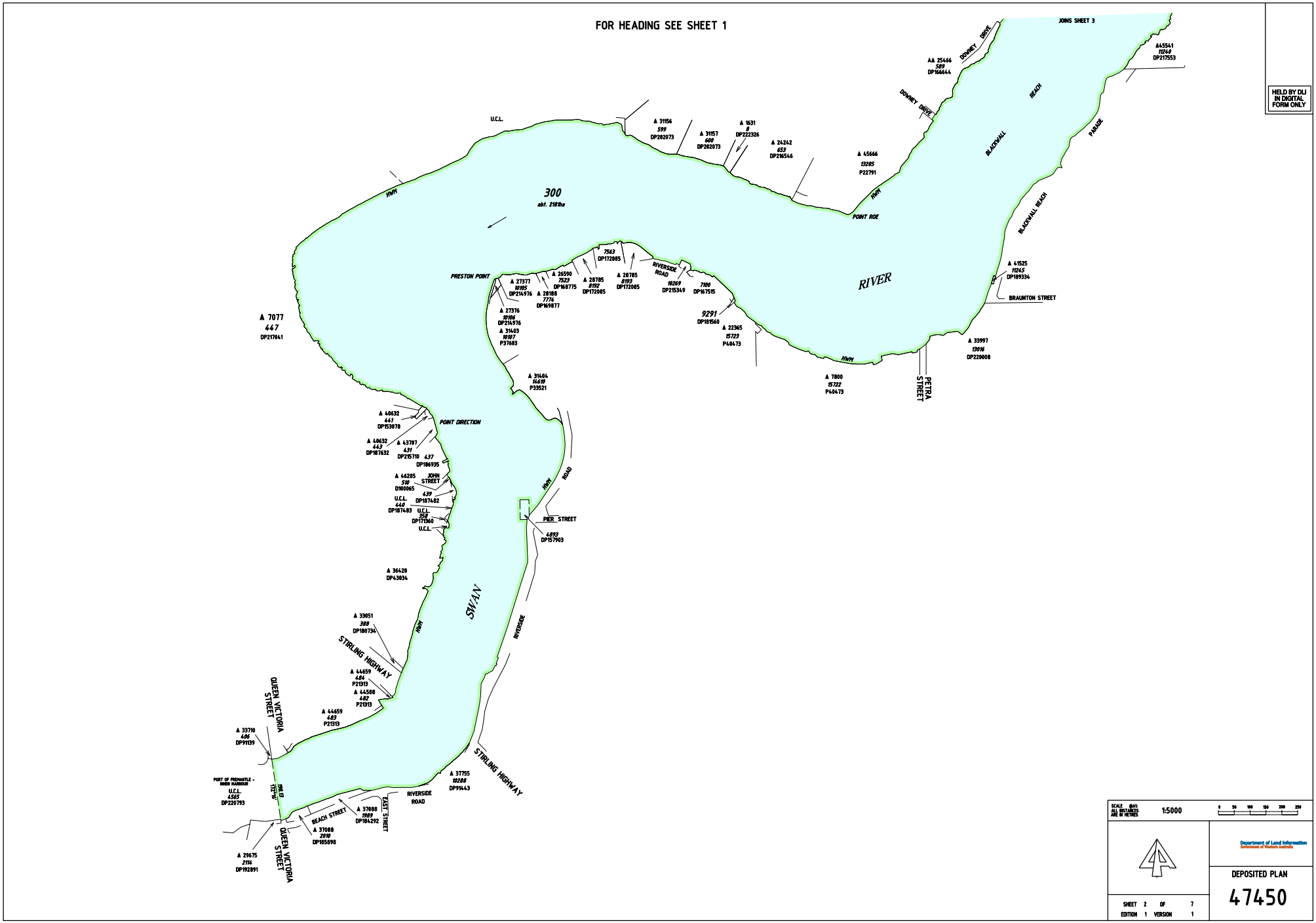

FOR HEADING SEE SHEET 1

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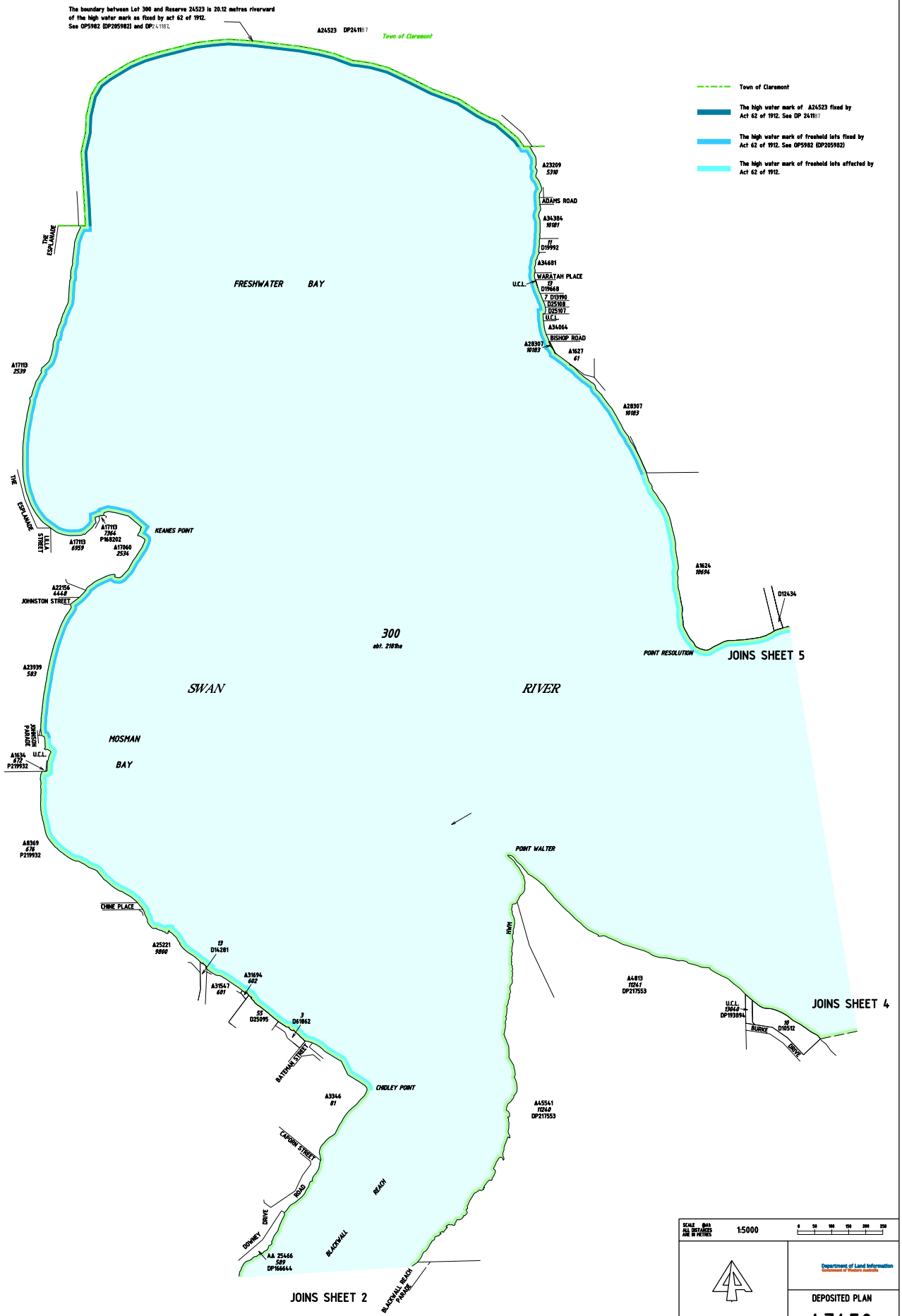

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LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813
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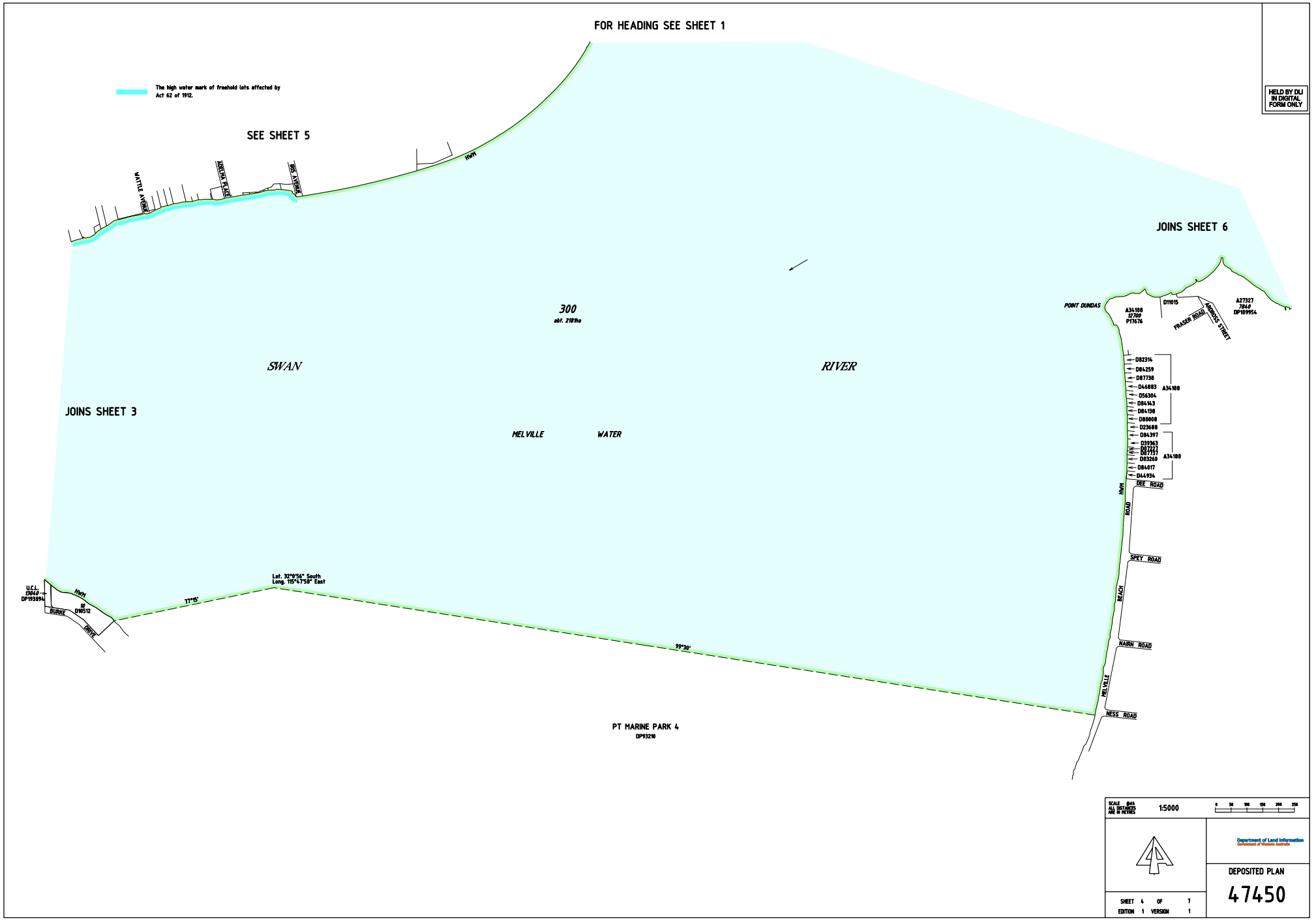

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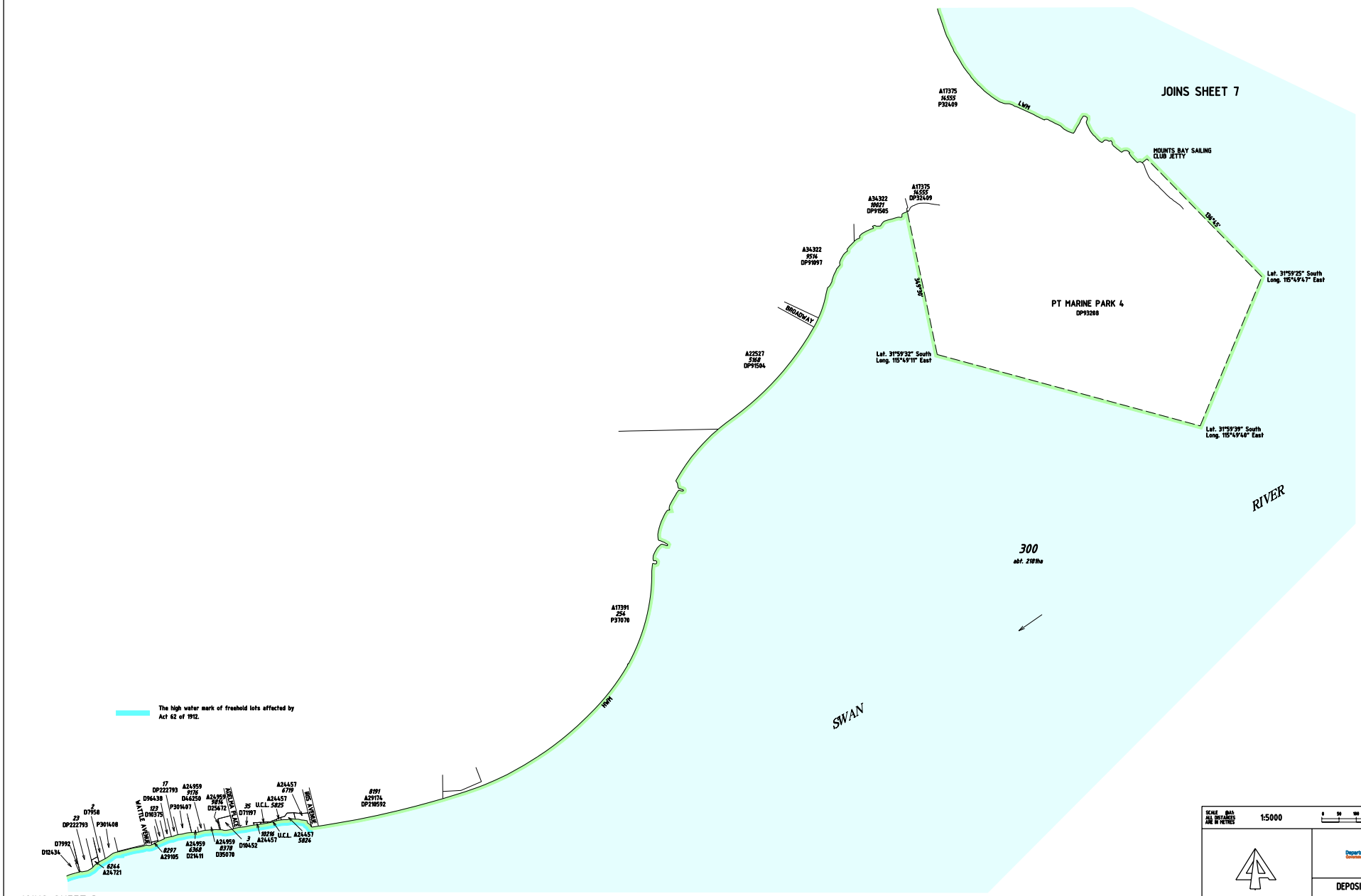
FOR HEADING SEE SHEET 1

HELD BY DLI IN DIGITAL FORM ONLY



SCALE @A3 ALL DISTANCES ARE IN METRES 1:5000

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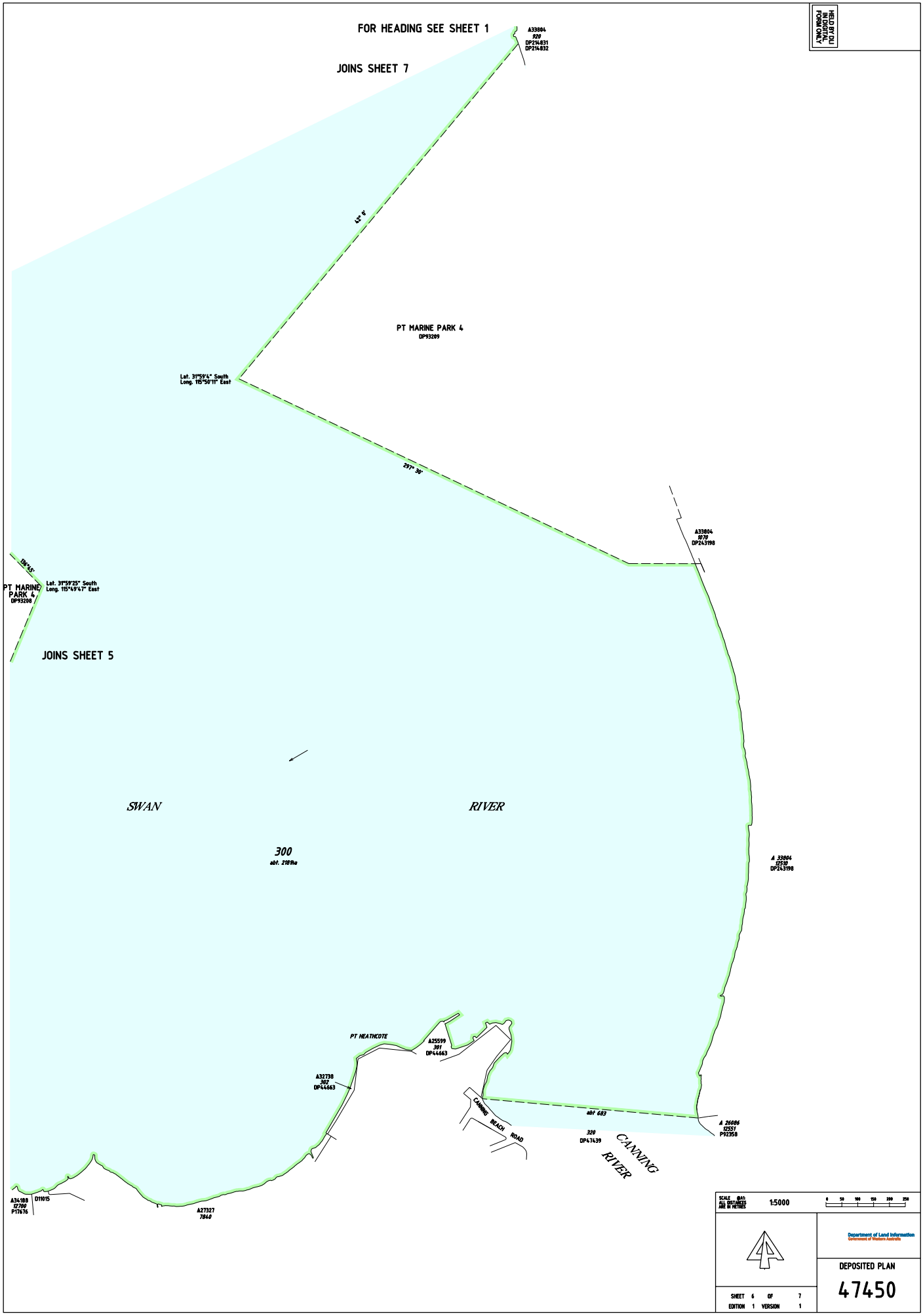
Department of Land Information
Government of Western Australia

DEPOSITED PLAN
47450

SHEET 5 OF 7
EDITION 1 VERSION 1



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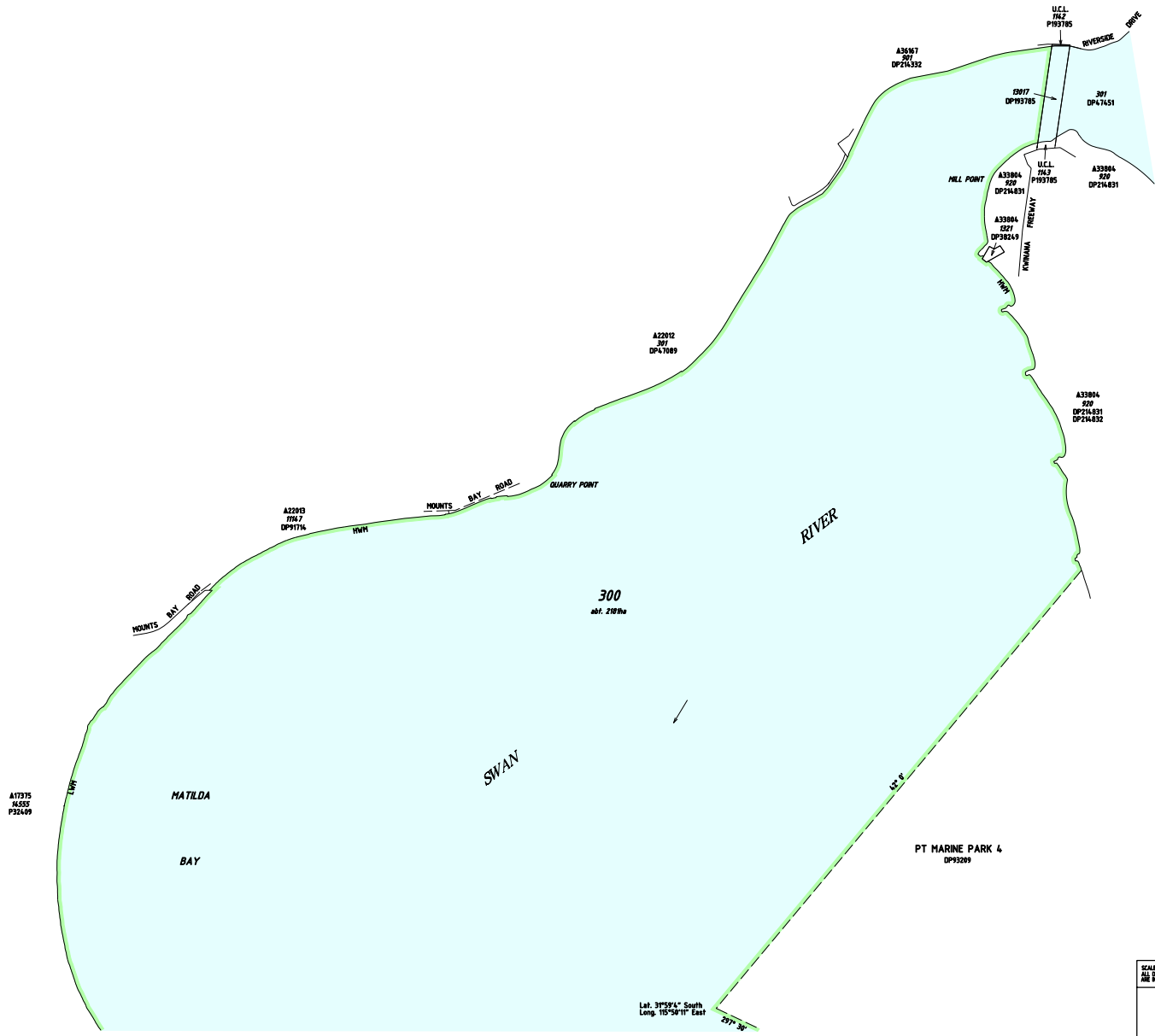
FOR HEADING SEE SHEET 1



JOINS SHEET 6

HELD BY DLI IN DIGITAL FORM ONLY

SCALE @A3 ALL DISTANCES ARE IN METRES 1:5000

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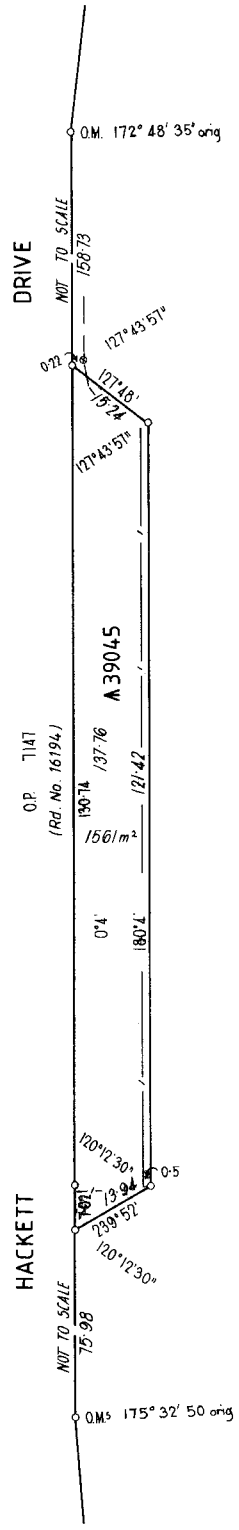
Department of Land Information
Government of Western Australia

DEPOSITED PLAN
47450

SHEET 7 OF 7
EDITION 1 VERSION 1

INCLUDES PT LOC 2889 (A A 17375)
SUPERSEDES PT O.P. P.2222
Amend A A 17375 Gaz 18·1·85 Page 242
A 39045 Gaz 3·5·85 Page 1543



A A 17375
2889
O.P. P.2222.

AMENDMENTS

DP 186614
CD 86614

LAND DISTRICT
SWAN

LOCATION 10605.

FILE No. 1007-984
SCALE 1:750
All measurements in metres

SURVEYOR'S CERTIFICATE
I hereby certify that this survey was performed by me personally (or under my personal supervision, inspection and field check), in strict accordance with the Licensed Surveyors (Guidance of Surveyors) Regulations.
R.A. McLoughlin
Licensed Surveyor.
Date 14/6/91.

Azimuth observed at .....
or assumed from O.P. 14396
Date of marking 10TH SEPTEMBER 1984
Surveyor R.A. McLOUGHLIN
Field Book No. 6 Page 1 & 2
Cadastral Plan. PERTH 2000 11:21 & 11:22
Reference .....
Diagram Drawn. G. GILCHRIST Date 15-10-84

Calc. Bk. No. ..... Fol.....
Compared with F.B. .....
Account No. .....
Examined 31/10/84
Diagram passed
Inspector of Plans and Surveys
Date 30.5.85

SURVEY APPROVED
Surveyor General
Date 1.7.85
Recorded on Public Plan. V.M. 7·5·85
Registered On Key Plan .....
Date 29.10.1985 Cancellation
DEPT. OF LANDS AND SURVEYS
DIAGRAM No. 86614

S.107

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813
Landgate
www.landgate.wa.gov.au

whole of Road No. 10951 commencing at the southern side of Burns Beach Road (Road No. 3883) and extending southward to terminate at the northern boundary of Swan Location 3324. (Public Plan Swan 10000 2.2.)

F. W. BYFIELD,
Under Secretary for Lands.

CHANGE OF NAME OF STREET.

Shire of West Pilbara.

Department of Lands and Surveys,
Perth, 30th March, 1979.

Corres. 774/62.

IT is hereby notified for general information that His Excellency the Governor in Executive Council has been pleased to approve, under section 10 of the Land Act, 1933-1977, of the change of name of part of Cameron Avenue to Simpson Street being that portion of surveyed road commencing at the southwestern side of First Avenue and extending southwestward along the southeastern boundaries of Onslow Lots 308 and 309 and to and along the southeastern boundaries of Lots 324, 325, 264 (Reserve No. 19347), 417, 367 and 383 (Reserve No. 29117) to terminate at a line joining the southwestern corner of the last mentioned lot and the northwestern corner of Lot 530 (Reserve No. 30223). (Public Plans Onslow 38.06 and 38.07.)

F. W. BYFIELD,
Under Secretary for Lands.

LOCAL GOVERNMENT ACT, 1960-1978.

Closure of Streets.

WHEREAS Stanley Robert Gale, Margaret Ann Gale, Edgar John Gale, Donald James Rowe, Brian Stewart Middleton and Jennifer Mary Middleton, being the owner of the land which adjoins the street hereunder described have agreed to the request of the Shire of Augusta-Margaret River, to close the said street.

Augusta-Margaret River.

File No. 1212/73.

A. 361. The whole of Road No. 8303 and 12801 shown bordered blue on Original Plan 13421. (Public Plan: 440A/40 B2).

WHEREAS, Gilbert Henry Woolridge and Gwenyth Joyce Woolridge, being the owners of the land which adjoins the street hereunder described have agreed to the request of the Shire of Beverley, to close the said street.

Beverley.

File No. 4002/76.

B.1008. All that portion of William Street commencing from a line in prolongation northwestward of the southwestern boundary of Mount Kokeby Lot 28 and extending northeastward along the northwestern boundary of the said Lot and onward to a line in prolongation northwestward of the southwestern boundary of Lot 11. (Public Plan: Mount Kokeby Townsite).

WHEREAS, Pearse Hillside Pty. Ltd., being the owner of the land which adjoins the street hereunder described has agreed to the request of the Shire of Cunderdin, to close the said street.

Cunderdin.

File No. 3089/95, V4.

C.961. All those portions of surveyed road along the southeastern boundaries of Avon Location 2294 and as shown bordered blue on Original Plan 14228. (Public Plan: Northam 40-4).

WHEREAS, Minister for Lands, being the owner of the land which adjoins the street hereunder described has agreed to the request of the Shire of Gnowangerup to close the said street.

Gnowangerup.

File No. 2744/74.

G.637. All that portion of Denny Street (Road No. 10795) now comprised in Gnowangerup Lots 376 and 377, both being surveyed on Original Plan 14014. (Public Plan: Gnowangerup Townsite).

WHEREAS, Minister for Lands, being the owner of the land which adjoins the street hereunder described has agreed to the request of the Shire of Laverton, to close the said street.

Laverton.

File No. 1155/73.

L. 95. The whole of the partly surveyed road commencing from a line in prolongation westward of the northern boundary of Laverton Lot 174 and extending northward through vacant Crown land, thence northwestward through Reserve No. 6884 to its terminus on the northeastern side of Road No. 15588. (Public Plans: Laverton Regional and Laverton 04.34).

WHEREAS, George Bruce Hogg and Vivienne June Curnow, being the owners of the land which adjoins the street hereunder described have agreed to the request of the Shire of Williams, to close the said street.

Williams.

File No. 3395/77.

W. 1115.

(a) The whole of the surveyed road along part of the western boundary of Culbin-Dardadine Railway Reserve (excluding the intersecting portion of Road No. 3369); from the southern boundary of Williams Location 4662 to a line in prolongation eastward of the northern boundary of Location 4512.

(b) All that portion of Road No. 5070, plus widenings, through part of Williams Location 4526; from the northern side of Road No. 3369 to a line in prolongation northeastward of the southeastern side of Road No. 14129.

(c) All that portion of Road No. 3369 along part of the northern boundary of Williams Location 5720, the northern and northeastern boundaries of the southwestern severance of Location 5721, the northeastern and northwestern boundaries of Location 12881 and through Location 11124; from a line in prolongation southwestward of the westernmost northwestern boundary of the southeastern severance of Location 4525 to the western side of the Culbin-Dardadine Railway Reserve. (Public Plan: Williams SW 1 : 25 000).

And whereas the Councils have requested closure of the said streets. And whereas the Governor in Executive Council has approved these requests. It is notified that the said streets are hereby closed.

F. W. BYFIELD,
Under Secretary for Lands.

LOCAL GOVERNMENT ACT, 1960-1978.

Department of Lands and Surveys,
Perth 30th March, 1979.

IT is hereby declared that, pursuant to the resolution of the City of Perth passed at a meeting of the Council held on or about 19th April, 1978, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road, that is to say:—

Perth.

2299/77 (R.5827).

Road No. 16194 (Hackett Drive). (i) A strip of land 20.12 metres wide widening at its commencement, commencing at the southeastern side of a

surveyed road (Mounts Bay Road) at the most northeastern corner of Swan Location 2885 (Reserve No. 17331) and extending as surveyed southwestward along the most northeastern and part of a southeastern boundary of that location to terminate at the common municipal boundary of the Cities of Perth and Subiaco.

(ii) (Deviation of Part). A strip of land, varying in width leaving the northwestern side of the present road and extending as delineated and coloured dark brown on Original Plan 14396 northeastward through Swan Location 2885 (Reserve No. 17331) to terminate at the southeastern side of Road No. 12768 (Mounts Bay Road).

5 820 square metres is being resumed from Swan Location 2885. Class "A" Reserve No. 17331 is hereby reduced by 5 820 square metres accordingly.

(Public Plan Perth 2000/11.22.)

IT is hereby declared that, pursuant to the resolution of the City of Gosnells passed at a meeting of the Council held on or about 8th August, 1978, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road. that is to say:—

Gosnells.

2131/78 (R.5894).

Road No. 1401 (Spencer Road (Widening of Part). That portion of Canning Location 21 as delineated and coloured dark brown on Lands and Surveys Diagram 83159.

2 065 square metres being resumed from Canning Location 21.

(Public Plan Perth 2000/18.15 and 18.16.)

IT is hereby declared that, pursuant to the resolution of the Town of Bunbury passed at a meeting of the Council held on or about 27th August, 1973, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road. that is to say:—

Bunbury.

2877/73 (MR 1187), M.R.D. 588/73-3.

Road No. 14158 (Preston River Parade) (Widenings of Part). Those portions of Wellington Location 29 as delineated and coloured dark brown on Lands and Surveys Diagram 82555.

1 418 square metres being resumed from Wellington Location 29.

(Notice of intention to Resume gazetted 9th February, 1979.)

(Public Plan B102-4.)

IT is hereby declared that, pursuant to the resolution of the Town of Canning passed at a meeting of the Council held on or about 27th December, 1978, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road, that is to say:—

Canning.

3061/78 (R.5904).

Road No. 639 (Nicholson Road) (Widening of Part). That portion of Jandakot Agricultural Area Lot 150 as delineated and coloured dark brown on Lands and Surveys Diagram 83266.

4 430 square metres being resumed from Jandakot Agricultural Area Lot 150.

(Public Plan F 126-4.)

IT is hereby declared that, pursuant to the resolution of the Town of Geraldton passed at a meeting of the Council held on or about 5th February, 1976, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road, that is to say:—

Geraldton.

792/76 (R.5887).

Road No. 13074 (Willcock Drive). (i) (Deviation). A strip of land 40 metres wide leaving the northeastern side of the present road at the southernmost southwestern corner of the eastern severance of Geraldton Lot 1142 and extending eastward as delineated and coloured dark brown on Lands and Surveys Diagram 82045 to terminate at the southeastern corner of that lot.

(ii) (Addition). A strip of land varying in width leaving the southern side of Road No. 13074 (Willcock Drive) described in item (i) above within vacant Crown land and extending as delineated and coloured mid brown on Lands and Surveys Diagram 82045 southeastward through the said vacant Crown land to terminate at the northeastern side of Road No. 13074 (Willcock Drive).

(Public Plan G36-4.)

IT is hereby declared that, pursuant to the resolution of the Shire of Albany passed at a meeting of the Council held on or about 15th August, 1978, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road, that is to say:—

Albany.

2935/68 (R.5903).

Road No. 15394 (Quaranup Road) (Extension). A strip of land 20 metres wide leaving the northern side of the present road at the northeastern corner of the northwestern severance of Plantagenet Location 374 and extending as coloured dark brown on Miscellaneous Plan 956 generally northeastward through Location 6554 (Class A Reserve No. 25295) and generally northeastward and northwestward through Location 7151 (Class A Reserve No. 25295) to terminate at the southeastern boundary of Location 7150 (Class A Reserve No. 30360).

Class "A" Reserve No. 25295 is hereby reduced by about 10.200 0 hectares accordingly.

(Public Plans A94-4; Albany Sheets NE and SE 1:25 000.)

IT is hereby declared that, pursuant to the resolution of the Shire of Augusta-Margaret River passed at a meeting of the Council held on or about 28th January, 1977, the undermentioned lands have been set apart, taken, or resumed under section 17 of the Public Works Act, 1902, for the purpose of a new road, that is to say:—

Augusta-Margaret River.

4216/24 (R. 5906).

Road No. 12250 (Regazettal). A strip of land 20 metres wide, widening at its commencement leaving Road No. 119 on the southern boundary of Sussex Location 3873 and extending as delineated and coloured dark brown on Original Plan 8307 as re-examined eastward along part of the southern boundary of the said location to its southeastern corner and through Location (i) and onwards to a surveyed road through Location 4167 (Class "A" Reserve 25373). The areas previously resumed from Sussex Location (i) and excised from Class "A" Reserve No. 25373 remain unaltered.

(Public Plan 441A/40 C1.)

IT is hereby declared that, pursuant to the resolution of the Shire of Chapman Valley passed at a meeting of the Council held on or about July 27, 1977, the undermentioned lands have been set

20. Class A Reserve 8431 "Protection and Preservation of Caves and Flora and for Health and Pleasure Resort" to exclude a total area of 71.2435 hectares comprising Sussex Locations 4660 and 4862 on Reserve diagram 786.
File 943/989.

21. Class A Reserve 1704 "Recreation" is cancelled.
File 2146/968.

22. Class A Reserve 9838 "Conservation of Flora and Fauna" to comprise Swan Location 11249 on Plan 17437 and of its area being established at 159.6204 hectares.
File 9989/01.

23. Class A Reserve 39962 "Conservation of Flora and Fauna and Passive Recreation" to exclude an area of 96 m^2 as shown bordered green on Diagram 89179.
File 3178/987.

24. Class A Reserve 9617 "Conservation of Flora and Fauna" to exclude Williams Locations 15686 and 15687 and now comprise Location 15756 on Plan 17324 with its area being established at 245.0432 hectares.
File 8318/04.

25. (a) Class A Reserve 14398 "Protection of Flora and Fauna" to comprise Williams Location 15758 on Plan 17331 and of its area being established at 144.1354 hectares.
    (b) The purpose of Class A Reserve 14398 is changed from "Protection of Flora and Fauna" to "Conservation of Flora and Fauna".
    File 8318/04.

26. (a) Class A Reserve 24556 "Protection of Flora and Fauna" to comprise Williams Location 15757 on Plan 17323 and of its area being established at 496.7644 hectares.
    (b) The purpose of Class A Reserve 24556 is changed from "Protection of Flora and Fauna" to "Conservation of Flora and Fauna".
    File 8318/04.

27. Class A Reserve 23572 "Recreation" to comprise Sussex Location 4857 on Diagram 88917 and of its area being established at 29.0062 hectares.
File 1421/52.

28. Class A Reserve 9337 "Recreation" is subject to Reserves and Land Revestment Act No. 21/1990.

A. A. SKINNER, Acting Executive Director, DOLA.

LA402

LOCAL GOVERNMENT ACT 1960
CLOSURE OF STREETS

Whereas the City of Belmont has requested the closure of the street hereunder described, *viz*:
File No. 3295/988, Closure No. B1280.

Belmont

(a) All that portion of Hubert Street shown bordered blue on Department of Land Administration Survey Diagram 89543.
(b) All that portion of Hubert Street shown bordered green on Department of Land Administration Survey Diagram 89543.

(Public Plan: Perth 1:2 000 17.25.)

Whereas the City of Fremantle has requested the closure of the street hereunder described, *viz*:
Case No. 106, Document No. E094564, Closure No. F64.

Fremantle

The whole of Edmund Street now comprised in Fremantle Lots 2061 and 2062 shown bordered pink on Department of Land Administration Survey Diagram 89490.

(Public Plan: Perth 1:2 000 07.13.)

Whereas the City of Geraldton has requested the closure of the street hereunder described, *viz*:
File No. 2035/986, Closure No. G750.

Geraldton

All that portion of Brede Street now comprised in Geraldton Lot 2888 shown bordered green on Department of Land Administration Survey Plan 17073.
(Public Plan: Geraldton 1:2 000 15.13.)

Whereas the Cities of Perth and Subiaco have requested the closure of the street hereunder described, *viz*:
File No. 2299/977, Closure No. P790.

Perth and Subiaco

All those portions of Hackett Drive (Road No. 16194) now comprised in Swan Locations 11297 and 11298 shown bordered pink on Department of Land Administration Survey Diagram 89686.
(Public Plan: 1:2 000 11.22.)

Whereas the Shire of Collie has requested the closure of the street hereunder described, *viz*:
File No. 2600/983, Closure No. C1208.

Collie

All that portion of Gavan Street (Road No. 10187) now comprised in Collie Lot 2793 shown bordered red on Department of Land Administration Survey Plan 17613.
(Public Plan: Collie 1:2 000 32.29, 33.29.)

Whereas the Shire of Cranbrook has requested the closure of the street hereunder described, *viz*:
Case No. 148, Document No. E200435, Closure No. C1201.

Cranbrook

(a) The whole of road No. 6570 along the western boundary of Plantagenet Location 674 and the western boundary of the eastern severance of Plantagenet Location 3408; from the northern side of Shelderton Road (Road No. 6134) to the southwestern side of Chinninup Road (Road No. 2167).
(b) The whole of the surveyed road along the eastern boundaries of Plantagenet Locations 673 and 2263; from the northern side of Shelderton Road (Road No. 6134) to the southwestern side of Chinninup Road (Road No. 2167).
(c) The whole of the surveyed road along the southern boundary of Plantagenet Location 1074; from the eastern side of the road described in (b) above to the western side of Pearce Road (Road No. 8428).

(Public Plan: Tenterden S.W., S.E. 1:25 000.)

Whereas the Shire of Cranbrook has requested the closure of the street hereunder described, *viz*:
Case No. 149, Document No. E200433, Closure No. C1207.

Cranbrook

(a) All that portion of the surveyed road along the southern boundary of the western severance of Hay Location 7432, extending eastwards from the eastern boundary of Hay Location 5195 to the northwestern side of Fulcher Road.
(b) All that portion of the surveyed road along the southern boundary of the eastern severance of Hay Location 7432 and the southern boundary of Hay Location 7780, extending eastwards from a southeastern side of Fulcher Road to a northwestern side of Cowenup Brook Road.

(Public Plan: Uannup S.W. and S.E. 1:25 000.)

And whereas the Minister has approved these requests, it is hereby declared that the said streets are closed.

A. A. SKINNER, Acting Executive Director.

LA402

LOCAL GOVERNMENT ACT 1960

DECLARATION OF CLOSURE OF STREETS

Made by the Minister for Lands

Under Section 288A

At the request of the Local Government nominated, the street described in the Notice is now declared to be closed.

Notice

Cities of Perth and Subiaco (DOLA File 2299/977; Closure No. P790).

(a) All that portion of Hackett Drive (Road No. 16194) shown bordered blue on DOLA Survey Diagram 89686.

(b) All that portion of Hackett Drive (Road No. 16194) now comprising Swan Location 11298 shown bordered pink on DOLA Survey Diagram 89686.

(Public Plan: Perth 1:2 000 11.22).

(This Notice hereby supersedes Road Closure Notice P790 appearing in the *Government Gazette* dated September 28, 1990, page 5002).

A. A. SKINNER, Acting Executive Director,
Department of Land Administration.

LB101

NAMING OF BREAKAWAY RIDGE NATURE RESERVE

Reserve No. 29019

Department of Land Administration,
Perth, 22 March 1991.

File No. 2354/72V5

It is hereby notified for general information that the name of "Breakaway Ridge Nature Reserve" has been applied to the land contained in Reserve No. 29019 "Conservation of Flora and Fauna" and located in the Shire of Lake Grace. Public Plans: Lake Bryde, Lake Biddy 1:50 000.

A. A. SKINNER, Acting Executive Director.

LB102

NAMING OF SAINT ANNE PARK

Reserve No. 27726

Department of Land Administration,
Perth, 22 March 1991.

File No. 3303/981

It is hereby notified for general information that the name of "Saint Anne Park" has been applied to the land contained in Reserve No. 27726 being set apart for the purpose of "Park" and located in the Shire of Dandaragan. Public Plans: Dandaragan (02) 03.06.

A. A. SKINNER, Acting Executive Director.

LB103

NAMING OF THE TUARTS RESERVE

Reserve No. 39468

Department of Land Administration,
Perth, 22 March 1991.

File No. 3303/981

It is hereby notified for general information that the name of "The Tuarts Reserve" has been applied to the land contained in Reserve No. 39468 being set apart for the purpose of "Rest Area" and located in the Shire of Dandaragan. Public Plans: Boullanger and Hill River 1:50 000.

A. A. SKINNER, Acting Executive Director.

LR3143/31 (Subject to Dealing)

35 Stirling Highway, CRAWLEY 6009

Reserve Details Report - 17331

Reserve	17331	Legal Area (ha)	38.7763
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	MAIN BUILDINGS UNIVERSITY OF W A
File Number	03108-1914-04RO;03108-1914-05RO		
Notes	N/A		
Additional Reserve Information	N/A		

Class	Responsible Agency	Date of Last Change
C	THE UNIVERSITY OF WESTERN AUSTRALIA	05/04/2007

Management Order	Document Number
N/A	N/A

Land Use
UNIVERSITY

Local Government Authority
CITY OF PERTH

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3112/303	Lot 13177 On Deposited Plan 189686	No Street Address Information Available	03108-1914-05RO	11052866	815
LR3143/31 (Subject to Dealing)	Lot 2885 On Deposited Plan 230371	35 Stirling Highway, CRAWLEY 6009	03108-1914-05RO	143268, 143290, 152702	392497.591
LR3143/32	Lot 11627 On Deposited Plan 218241	Lot 11627 Hackett Drive, CRAWLEY 6009	03108-1914-05RO	1069833	856

Previous Certificates of Title	Status
CL1455/1921	Cancelled
LR3000/117	Cancelled

Previous Certificates of Title	Status
LR3044/406	Cancelled
LR3096/493	Cancelled

Document Number/Gazette Page	Date	Type	Text
N/A	14/06/2000	Current Area	38.7763 (SEE PAGE 640 OF FILE 3108-1914-05)
H376256	29/02/2000	Historical Area	38.7717
H007800	21/01/1999	Historical Area	38.6902
1559	12/03/1993	Historical Area	38.6948
1559	12/03/1993	Location	SWAN LOC'S 2885, 11627 & 13177 (H376256)
1559	12/03/1993	Survey Number	CS:PLANS 2222,18241 & 89686
711	07/02/1992	Historical Area	38.6092 (REDUCED BY ROAD NO.16194)
880	30/03/1979	Historical Area	38.6138 BY RD.16194
313	02/02/1979	Area Reduced by	38.2931 BY RD.16138 ANNULED 23.2.1979/498
172	31/01/1958	Area Reduced by	98.0.15
1929	31/10/1919	Class	C
1929	31/10/1919	Original Gazettal and page	ORIGINAL GAZETTE
N/A	31/10/1919	Current Purpose	MAIN BUILDINGS UNIVERSITY OF W A
N/A	31/10/1919	Correspondence File Number	03108-1914-04RO
N/A	31/10/1919	Original Area	102.0.8
N/A	31/10/1919	Public Plan	BG34 (2) 11.22
N/A	31/10/1919	Street Name	HACKETT DRIVE
N/A	N/A	Metric Conversion	38.8751,P402
N/A	N/A	Area Increased by	ACT 76 - 1961
N/A	N/A	Area Increased by	101.0.38

date: May 12, 2025, 11:01:36 AM

LAND
CROWN
CROWN
LAND

NOT TO BE REMOVED FROM THE DEPARTMENT OF LAND ADMINISTRATION

NO DUPLICATE ISSUED

Application H376257
Corr. 03108-1914-04ro

REGISTER VOLUME 3112 FOLIO 303

WESTERN AUSTRALIA

CERTIFICATE OF CROWN LAND TITLE

UNDER THE "TRANSFER OF LAND ACT 1893" AS AMENDED
AND THE "LAND ADMINISTRATION ACT 1997"

The undermentioned land is Crown land, in the name of the
STATE of WESTERN AUSTRALIA,
subject to the interests and status orders in the First Schedule which interests and status orders are subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

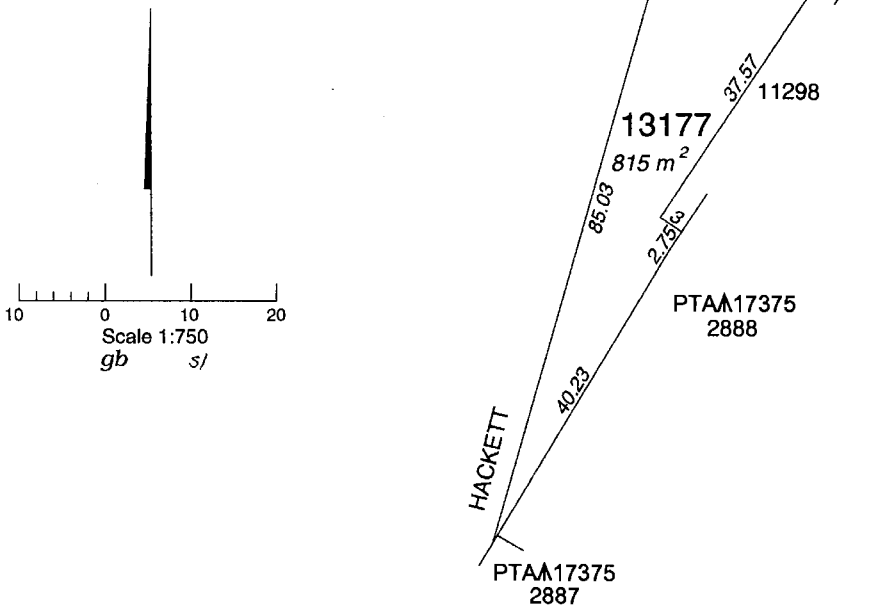
Dated 29 February 2000

REGISTRAR OF TITLES

LAND REFERRED TO

Swan Location 13177 on Land Administration Diagram 89686 delineated on the sketch in the Third Schedule.

THIRD SCHEDULE



WARNING: A CURRENT SEARCH SHOULD BE OBTAINED BEFORE DEALING ON THIS LAND

CLT - 28/10/98

LAND
CROWN
CROWN
LAND

Superseded - Copy for Sketch Only

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813

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Superseded - Copy for Sketch Only

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813

CERTIFICATE OF CROWN LAND TITLE VOL. 3112 FOL. 303

FIRST SCHEDULE

NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

INSTRUMENT									
NATURE	NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL
Amendment of Reserve	H376256	Part Reserve No. 17331 for the purpose of **Site for the Main Buildings of the University of Western Australia.**	29.2.00	15.31					

SECOND SCHEDULE

NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

INSTRUMENT									
NATURE	NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL
		Crown Lease No. 1455/1921 to **University of Western Australia** of Nedlands commencing 1.7.1919 for a term of 999 years.							

www.landgate.wa.gov.au

WESTERN AUSTRALIA

TITLE NUMBER

Volume	Folio
LR3112	303

RECORD OF CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 13177 ON DEPOSITED PLAN 189686

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE SUBJECT TO LEASE

PRIMARY INTEREST HOLDER: UNIVERSITY OF WESTERN AUSTRALIA OF NEDLANDS
(LC I195321) REGISTERED 5/8/2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1.	H376256	RESERVE 17331 FOR THE PURPOSE OF SITE FOR THE MAIN BUILDINGS OF THE UNIVERSITY OF WESTERN AUSTRALIA REGISTERED 29/2/2000.
2.	I195321	LEASE. SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT IN THE LEASE. REGISTERED 5/8/2002.
	G321566	CAVEAT AFFECTING LEASE I195321, CAVEAT BY UNIVERSITY CO-OPERATIVE BOOKSHOP LTD AS TO PORTION ONLY. LODGED 6/11/1996.
	L780595	VARIATION OF LEASE I195321 REGISTERED 10/11/2011.
3.	H110409	MEMORIAL. HERITAGE OF WESTERN AUSTRALIA ACT 1990. AS TO PORTION ONLY. REGISTERED 17/5/1999.
4.	O033040	EASEMENT TO ELECTRICITY NETWORKS CORPORATION FOR ELECTRICITY SUPPLY PURPOSES. SEE DEPOSITED PLAN 411857. REGISTERED 20/11/2018.
5.	O045120	EASEMENT TO CONSERVATION AND LAND MANAGEMENT EXECUTIVE BODY FOR ACCESS PURPOSES. SEE DEPOSITED PLAN 413699. REGISTERED 5/12/2018.
6.	O567357	EASEMENT TO WATER CORPORATION FOR PRESSURE MAIN PURPOSES. SEE DEPOSITED PLAN 417611. REGISTERED 27/11/2020.
7.	O567358	EASEMENT TO WATER CORPORATION FOR STORMWATER DRAINAGE PURPOSES. SEE DEPOSITED PLAN 417611. REGISTERED 27/11/2020.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

END OF PAGE 1 - CONTINUED OVER

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----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	LR3112-303 (13177/DP189686)
PREVIOUS TITLE:	LR3112-303
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF PERTH
RESPONSIBLE AGENCY:	THE UNIVERSITY OF WESTERN AUSTRALIA

NOTE 1: L780595 CORRESPONDENCE FILE 03108-1914-05RO

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813

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Reserve Details Report - 36225

Reserve	36225	Legal Area (ha)	0.0682
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	PIPELINE
File Number	02256-1979-01RO		
Notes	N/A		
Additional Reserve Information	RESERVE COMPRISES LOT 9999 ON DP91307 AND LOT 11298 ON DP 189686 (G574460)		

Class	Responsible Agency	Date of Last Change
C	WATER CORPORATION	08/02/2007

Management Order	Document Number
WATER CORPORATION	G948465

Land Use
PIPELINE

Local Government Authority
CITY OF PERTH

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m^2)
LR3140/661	Lot 9999 On Deposited Plan 91307	Lot 9999 Hackett Drive, CRAWLEY 6009	02256-1979-01RO	143291	569.429
LR3140/662	Lot 11298 On Deposited Plan 189686	No Street Address Information Available	02256-1979-01RO	1333489	113

Previous Certificates of Title	Status
LR3048/156	Cancelled

Document Number/Gazette Page	Date	Type	Text
G948462	11/11/1998	Vesting Revoked	MANAGEMENT ORDER REVOKED DATED 22.8.97
G948463	11/11/1998	Current Area	0.0682

Document Number/Gazette Page	Date	Type	Text
G948463	11/11/1998	Location	SWAN LOC'S 9999 & 11298
G948465	11/11/1998	Current Vesting	MANAGEMENT ORDER WATER CORPORATION
G948465	11/11/1998	Historical Vesting	VEST:WATER CORPORATION
N/A	22/08/1997	Historical Vesting	VEST: WATER CORPORATION
N/A	22/08/1997	Vesting Revoked	REVOKED ORDER DATED 31 AUG 1979
2604	31/08/1979	Historical Vesting	VEST METRO WATER AUTHORITY
2620	31/08/1979	Original Gazettal and page	ORIGINAL GAZETTE
N/A	31/08/1979	Class	C
N/A	31/08/1979	Current Purpose	PIPELINE
N/A	31/08/1979	Correspondence File Number	2256/79
N/A	31/08/1979	Historical Area	0.0569
N/A	31/08/1979	Public Plan	PERTH 02 11.22
N/A	31/08/1979	Street Name	HACKETT DRIVE
N/A	31/08/1979	Survey Number	RES.D:308

date: May 12, 2025, 12:09:31 PM

Child Welfare Act, 1947-1977.

ORDER IN COUNCIL.

HIS Excellency the Governor in Executive Council has revoked in accordance with section 16 of the Child Welfare Act, 1947-1977, the persons referred to in Column I of the Schedule, Managers previously in control of the subsidised Centres or Facilities referred to in Column II of the Schedule for the purposes of the said Act.

P. N. GORTON,
Acting Director.

Schedule.

Revocation of Managers.

Column I	Column II
Catholic:	
John Namnik (from 11/6/79)	Centrecare Children's Cottages
Churches of Christ:	
John Van Veen (from 1/2/79)	Bamburra Hostel
Graham Butler (from 1/2/79)	Roelands Village

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Child Welfare Act, 1947-1977.

ORDER IN COUNCIL.

HIS Excellency the Governor in Executive Council has been pleased to approve under section 16 of the Child Welfare Act, 1947-1977, the persons referred to in Column I of the Schedule, Managers in chief control of subsidised Centres or Facilities, referred to in Column II of the Schedule, for the purposes of the said Act.

P. N. GORTON,
Acting Director.

Schedule.

Managers of Subsidised Centres or Facilities.

Column I	Column II
Catholic:	
Kenneth Douglas (from 11/6/79)	Centrecare Children's Cottages
Churches of Christ:	
Phillip Jackson (from 1/2/79)	Bamburra Hostel
Avon Moyle (from 1/2/79)	Roelands Village

J. E. A. PRITCHARD,
Acting Clerk of the Council.

AT a meeting of the Executive Council held in the Executive Council Chamber at Perth, this 22nd day of August, 1979, the following Orders in Council were authorised to be issued:—

Child Welfare Act, 1947-1977.

ORDER IN COUNCIL.

WHEREAS by section 19(2)(a) of the Child Welfare Act, 1947-1977, it is provided that the Governor may appoint such persons, male or female, as he may think fit, to be members of any particular Children's Court and may determine the respective seniorities of such members and whereas by section 19(1)(b)(ii) of the said Act the Governor may amend, vary or revoke any such appointment: Now, therefore, His Excellency the Governor by and with the advice and consent of the Executive Council doth hereby appoint the persons named in the Schedule hereto to be Members of the Children's Court at the place mentioned and doth hereby revoke the appointments of the persons named in the Schedule hereto as Members of the Children's Court at the place mentioned.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Schedule.

Appointments:
Kulin: Harold Proud, Noel Muir.
Revocations:
Kulin: James Alfred Greaves, Max Noble.

Child Welfare Act, 1947-1977.

ORDER IN COUNCIL.

WHEREAS by section 19(2)(a) of the Child Welfare Act, 1947-1977, it is provided that the Governor may appoint such persons, male or female, as he may think fit, to be members of any particular Children's Court and may determine the respective seniorities of such members and whereas by section 19(1)(b)(ii) of the said Act the Governor may amend, vary or revoke any such appointment: Now, therefore, His Excellency the Governor by and with the advice and consent of the Executive Council doth hereby appoint the persons named in the Schedule hereto to be Members of the Children's Court at the place mentioned and doth hereby revoke the appointments of the persons named in the Schedule hereto as Members of the Children's Court at the place mentioned.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Schedule.

Appointments:
Mukinbudin: Lawrence Victor Jones, Bruce James Morrison.
Revocations:
Mukinbudin: Eric Erickson, Harold Shadbolt, Harold Williams.

Land Act, 1933-1977.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act, 1933-1977, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the order in trust for the like or other public purposes to be specified in such order: And whereas it is deemed expedient as follows:—

File No. 969/61.—That Reserve No. 1431 should vest in and be held by the Minister of Water Supply, Sewerage and Drainage in trust for the purpose of "Water and Conservation of Flora and Fauna".

File No. 2612/16.—That Reserve No. 18874 should vest in and be held by the Shire of Kondinin in trust for the purpose of "Parkland".

File No. 1660/59.—That Reserve No. 25698 should vest in and be held by the Shire of Mandurah in trust for the purpose of "Recreation".

File No. 123/66.—That Reserve No. 27994 should vest in and be held jointly by the Commissioner of Main Roads and the Shire of Dandaragan in trust for the purpose of "Gravel".

File No. 124/66.—That Reserve No. 27995 should vest in and be held jointly by the Commissioner of Main Roads and Shire of Dandaragan in trust for the purpose of "Gravel".

File No. 4324/74.—That Reserve No. 33005 should vest in and be held by the Shire of Halls Creek in trust for the purpose of "Recreation".

File No. 2093/78.—That Reserve No. 35755 should vest in and be held by the Shire of Wanneroo in trust for the purpose of "Drain".

File No. 527/79.—That Reserve No. 36150 should vest in and be held by the City of Canning in trust for the purpose of "Public Recreation".

File No. 2958/78.—That Reserve No. 36222 should vest in and be held by the City of Canning in trust for the purpose of "Pedestrian Access Way".

File No. 2958/78.—That Reserve No. 36223 should vest in and be held by the City of Canning in trust for the purpose of "Pedestrian Access Way".

File No. 2256/79.—That Reserve No. 36225 should vest in and be held by the Metropolitan Water Supply, Sewerage and Drainage Board in trust for the purpose of "Pipeline".

File No. 2369/77.—That Reserve No. 36232 should vest in and be held by the Shire of Mundaring in trust for the purpose of "Park and Parking".

File No. 684/79.—That Reserve No. 36237 should vest in and be held by the Minister of Water Supply, Sewerage and Drainage in trust for the purpose of "Sewerage Treatment Works Site".

File No. 2562/78.—That Reserve No. 36248 should vest in and be held by The State Energy Commission of Western Australia in trust for the purpose of "Radio Aerial Site".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the beforementioned bodies in trust for the purposes aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Land Act, 1933-1977.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act, 1933-1977, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the Order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such Order and with power of leasing; and whereas it is deemed expedient as follows:—

File No. 1783/73.—That Reserve No. 33220 should vest in and be held by the Shire of Exmouth in trust for the purpose of "Recreation".

File No. 2821/73.—That Reserve No. 33414 should vest in and be held by the Shire of Collie in trust for the purpose of "Race Course and Recreation".

File No. 3686/77.—That Reserve No. 36237 should vest in and be held by the Shire of Cranbrook in trust for the purpose of "Pony Club, Horse Paddocking and Stables Site".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the beforementioned bodies in trust the purposes aforesaid with the power to the said bodies, subject to the approval in writing of the Minister for Lands to each and every lease or assignment of lease being first obtained, to lease the whole or any portion thereof for any term not exceeding 21 years from the date of the lease, subject nevertheless to the powers reserved to me by section 37 of the said Act; provided that no such lease or assignment of lease shall be valid or operative until the approval of the Minister for Lands, or an officer authorised in that behalf by the Minister, has been endorsed on the Lease Instrument, or Deed of Assignment, as the case may be.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Land Act, 1933-1977.

ORDER IN COUNCIL.

File No. 4350/52, V.2.

WHEREAS by section 33 of the Land Act, 1933-1977, it is, *inter alia*, made lawful for the Governor by Order in Council to direct that any land reserved pursuant to the provisions of this Act shall be granted in fee simple to any person (as defined in the said section) subject to the condition that the person shall not lease or mortgage the whole or any part of the land without the consent of the Governor and subject to such other conditions and limitations as the Governor shall deem necessary to ensure that the land is used for the purpose for which the land is reserved as aforesaid; and whereas it is deemed expedient that Class "A" Reserve No. 25746 (Swan Location 9959) should be granted in fee simple to the Trustees of the Pinnaroo Valley Memorial Park Cemetery to be held in trust for the purpose of "Cemetery".

Now, therefore, His Excellency the Governor by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned reserve shall be granted in fee simple to the Trustees of the Pinnaroo Valley Memorial Park Cemetery to be held in trust for the purpose aforesaid subject to the condition that the land shall not be leased or mortgaged in whole or in part without the consent of the Governor.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Land Act, 1933-1977.

ORDER IN COUNCIL.

File No. 1425/75.

WHEREAS by section 33 of the Land Act, 1933-1977, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the order in trust for the like or other public purposes to be specified in such order: And whereas it is deemed expedient that Reserve No. 33682 should vest in and be held by the Churchlands College in trust for the purpose of "Public Utilities Services and Parking": Now, therefore His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserve shall vest in and be held by the Churchlands College in trust for the purpose aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act and to the following further conditions.

1. The College is restricted to surface use of the land only and no structural improvements shall be erected thereon without the express approval of those Public Utility Authorities having services therein or which may have services therein in the future.
2. Such Authorities shall have unlimited right of access to existing services in the Reserve and to construct new services therein.

J. E. A. PRITCHARD,
Acting Clerk of the Council.

Land Act, 1933-1977.

ORDER IN COUNCIL.

Corres. 10692/01.

WHEREAS by section 33 of the Land Act, 1933-1977, it is *inter alia*, made lawful for the Governor to direct that any land reserved pursuant to the provisions of the Act shall be leased for the purpose for which the land is reserved as aforesaid, by Instrument of Lease in accordance with the form in the Fourth Schedule of the Act, to any person (as defined in the said section); and whereas it is deemed expedient that Reserve No. 8388 (Ngalbain District) shall be leased for a term of one year and thereafter from year to year to The Commonwealth of Australia to be held in trust for the purpose of a "Rifle Range": Now therefore, His Excellency the Governor by and with the advice and consent of the Executive Council doth hereby direct that the abovementioned Reserve shall be leased for a term of one year and thereafter from year to year to The Commonwealth of Australia to be held in trust for the purpose of a "Rifle Range" at an annual rental of two dollars ($2.00).

J. E. A. PRITCHARD,
Acting Clerk of the Council.

RESERVES.

Department of Lands and Surveys,
Perth, 31st August, 1979.

HIS Excellency the Governor in Executive Council has been pleased to set apart as Public Reserves the land described below for the purposes therein set forth.

File No. 684/79.

ALBANY.—No. 36237 (Sewerage Treatment Works Site), Lot No. 1328 (10.000 7 hectares). (Diagram 83423, Plan Redmond 254-4 (Collingwood Street).)

File No. 2226/78.

BODDINGTON.—No. 36243 (Caravan Park), Lot No. 99 (1.780 5 hectares). (Original Plan 14549, Plan Boddington Townsite (Hakea Road).)

File No. 4312/74.

BROOME.—No. 36227 (Use and Requirements of the Government Employees Housing Authority), Lot Nos. 1236, 1240, 1303 and 1305 (3 950 square metres). (Original Plan 14146, Plan Broome Townsite Sheet 1 (Bardwell Street, Piggott Way).)

File No. 2532/77.

BROOME.—No. 36231 (Housing—Medical Department), Lot No. 1280 (977 square metres). (Original Plan 14146, Plan Broome Townsite Sheet 1 (Anne Street).)

File No. 1867/79.

BROOMEHILL.—No. 36229 (Use and Requirements of the Shire of Broomehill), Lot No. 64 (1 012 square metres). (Plan Broomehill 37.15 (India Street).)

File No. 2958/78.

CANNING.—No. 36222 (Pedestrian Access Way), Location No. 3090 (210 square metres). (Diagram 83254, Plan Perth 2 000 16.15 (Cerberus Avenue).)

File No. 2958/78.

CANNING.—No. 36223 (Pedestrian Access Way), Location No. 3091, (180 square metres). (Diagram 83254, Plan Perth 2 000 16.15 (Datura Court).)

File No. 60/66.

CARBUNUP.—No. 36239 (Use and Requirements of the Shire of Busselton), Lot No. 3 (1 012 square metres). (Plan Carbunup River Townsite 1:2 000 (Wildwood Road).)

File No. 1752/78.

CERVANTES.—No. 36226 (Police Purposes), Lot No. 594 (3 764 square metres). (Original Plan 14213, Plan Cervantes 4.24 (Weston Street).)

File No. 3686/77.

CRANBROOK.—No. 36237 (Pony Club, Horse Paddocking and Stables Site), Lot No. 249 (39.850 1 hectares). (Diagram 83041, Plan Cranbrook Townsite (King Street).)

File No. 2562/78.

FORREST.—No. 36248 (Radio Aerial Site), Location No. 164 (2 500 square metres). (Diagram 83379, Plan Port Hedland and Roebourne 1:250 000.)

File No. 625/79.

HALLS CREEK.—No. 36230 (Use and Requirements of the Government Employees Housing Authority), Lot Nos. 340 and 366 (2 988 square metres). (Plans Halls Creek 32.24; 32.25 (John Flynn Street).)

File No. 3769/76.

KUNUNURRA.—No. 36194 (Use and Requirements of the Government Employees Housing Authority), Lot Nos. 1234 and 1261 (1 937 square metres), (Original Plan 13893, 14278, Plan Kununurra 23.16 (Beefwood Street and Koolpurn Court).)

File No. 2369/77.

MOUNT HELENA.—No. 36232 (Park and Parking), Lot No. 339 (3 583 square metres). (Original Plan 14143, Plan M 135-4 (Keane Street).)

File No. 2309/79.

SANDSTONE.—No. 36233 (Museum Site), Lot No. 76 (1 012 square metres). (Plan Sandstone Townsite (Payne Street).)

File No. 2310/79.

SANDSTONE.—No. 36234 (Power Station Site), Lot No. 77 (1 012 square metres). (Plan Sandstone Townsite (Payne Street).)

File No. 2256/79.

SWAN.—No. 36225 (Pipeline), Location No. 9999 (569 square metres). (Reserve Diagram 308, Plan Perth 2 000 BG 34/11.22 (Hackett Drive).)

File No. 3070/77.

SWAN.—No. 36228 (Civil Defence Purposes and Public Utilities Services), Location No. 9998 (542 square metres). (Reserve Diagram 309, Plan Perth 2 000 18.26 (Epsom Avenue, Belmont).)

F. W. BYFIELD,
Under Secretary for Lands.

REVOCATION OF ORDERS IN COUNCIL.

Department of Lands and Surveys,
Perth, 31st August, 1979.

IT is hereby notified for general information that His Excellency the Governor in Executive Council has been pleased to revoke as follows:—

File No. 6540/08.—The Order in Council dated 5th September, 1917, whereby Reserve No. 5253 was vested in The Honourable The Minister for Water Supply, Sewerage, and Drainage in trust for the purpose of "Water Supply" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 358/58.—The Order in Council issued under portion of Executive Council Minute No. 656 dated 17th April, 1958, whereby Class "A" Reserve No. 24939 was vested in the Kojonup Road Board in trust for the purpose of "Recreation" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 1660/59.—The Order in Council issued under portion of Executive Council Minute No. 1007 dated 7th June, 1961 whereby Reserve No. 25698 (Murray Location 1544) was vested in the Mandurah Road Board in trust for the purpose of "Parking Area" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 3440/65.—The Order in Council issued under portion of Executive Council Minute No. 1041 dated 24th April, 1972 whereby Reserve No. 28295 was vested in the Shire of Bayswater in trust for the purpose of "Recreation" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 2900/63.—The Order in Council issued under portion of Executive Council Minute No. 549 dated 4th March, 1970, whereby Reserve No. 30277 was vested in the Shire of Denmark in trust for the purpose of "Stock Saleyards" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 2821/73.—The Order in Council issued under portion of Executive Council Minute No. 1626 dated 18th June, 1975, whereby Reserve No. 33414 was vested in the Shire of Collie in trust for the purpose of "Race Course" and to approve of the cancellation of the relevant Vesting Order accordingly.

File No. 2935/68.—The Order in Council issued under portion of Executive Council Minute No. 980 dated 29th April, 1970, whereby Class "A" Reserve No. 30360 was vested in the Shire of Albany in trust for the purpose of "Recreation and Holiday Resort" and to approve of the cancellation of the relevant Vesting Order accordingly.

F. W. BYFIELD,
Under Secretary for Lands.

NOT TO BE REMOVED FROM DEPARTMENT OF LAND ADMINISTRATION LT 156

NO DUPLICATE ISSUED

Sundry Document G574460

Corr. 2256/1979

REGISTER VOL 3048 BOOK FOL 156

WESTERN AUSTRALIA

Crown Land Record CANCELLED

The undermentioned land shown on the sketch in the First Schedule hereto is land of the Crown subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

VOL. 3048 FOL. 156

Dated 4th September, 1997

CHIEF EXECUTIVE OFFICER

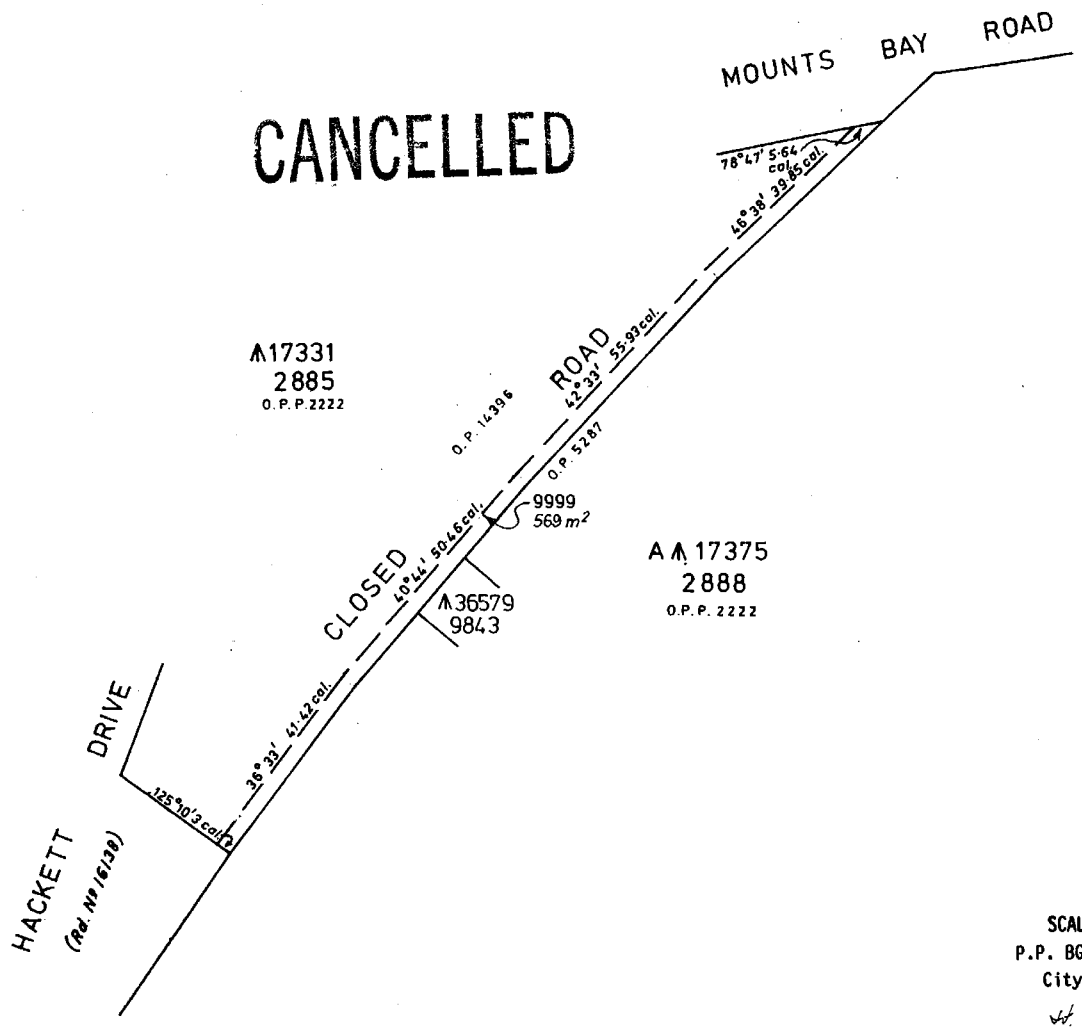
LAND REFERRED TO

Swan Location 9999 on Land Administration Reserve Diagram 308

FIRST SCHEDULE

Title is cancelled

CANCELLED



SCALE 1:1250

P.P. BG34 (2) 11.22

City of Perth

FOR ENCUMBRANCES AND OTHER MATTERS AFFECTING THE LAND SEE SECOND SCHEDULE

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS RECORD OR ANY NOTIFICATION HEREON

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Title is cancelled

SECOND SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

PARTICULARS	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	CERT. OFFICER
Reserve No 36225 for the purpose of "Pipeline" and vested in Metropolitan Water Supply Sewerage and Drainage Board.	Sundry	G574460				
Vesting revoked in Gov. Gaz. 22.8.97	Sundry	G574460		15.30		
Vested in Water Corporation. In Gov. Gaz. 22.8.97.	Sundry	G574460		15.30		
Management Order Revoked.	Revocation	G948462	11.11.98	8.02		
Reserve No. 36225 is amended to include Swan Location 11298 on Land Administration Diagram 89686.	Amendment of Reserve	G948463	11.11.98	8.02		
Cancelled : Swan Locations 9999 and 11298 included in Vol 3000 Fol 584.	Application	G948464	11.11.98	8.02		

NOT TO BE REMOVED FROM THE DEPARTMENT OF LAND ADMINISTRATION

NO DUPLICATE ISSUED

REGISTER VOLUME 3000 FOLIO 584

Application G948464
Amendment of Reserve G948463
Corr. 2256/1979
Volume. Folio.
3048 156

WESTERN AUSTRALIA

CERTIFICATE OF CROWN LAND TITLE

UNDER THE "TRANSFER OF LAND ACT 1893" AS AMENDED AND THE "LAND ADMINISTRATION ACT 1997"

CANCELLED

The undermentioned land is Crown land, in the name of the

STATE of WESTERN AUSTRALIA,

subject to the interests and status orders in the First Schedule which interests and status orders are subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

Dated 11 November 1998

REGISTRAR OF TITLES

Page 1 (of 4 pages)

LAND REFERRED TO

Swan Location 9999 on Land Administration Reserve Diagram 308 and Swan Location 11298 on Land Administration Diagram 89686 delineated on the sketch in the Third Schedule.

CANCELLED

WARNING: A CURRENT SEARCH SHOULD BE OBTAINED BEFORE DEALING ON THIS LAND

Superseded - Copy for Sketch Only

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CERTIFICATE OF CROWN LAND TITLE VOL. 3000 FOL. 584

FIRST SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL
Sundry	G574460	Reserve No. 36225 for the purpose of "**Pipeline**".							
Management Order	G948465	Care, Control and Management to **Water Corporation** of Post Office Box 100, Leederville.	11.11.98	8.02					
Application	K81792	Cancelled: to Vol 3140 Fol 661 and 662	7.2.07	14.17					

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CERTIFICATE OF CROWN LAND TITLE VOL. 3000 FOL. 584

SECOND SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

INSTRUMENT									
NATURE	NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL

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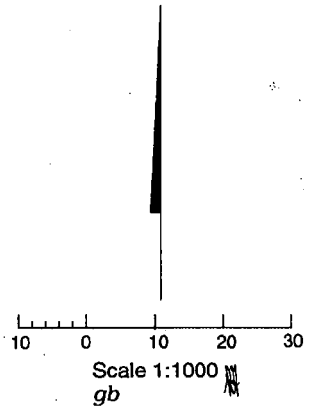
THIRD SCHEDULE



Total Area = 682 m^2

MOUNTS BAY ROAD

5.64
39.85
44.51
55.93
55.76

9999
569 m^2

A17331
2885

AA17375
2888

A36579
9843

50.46
50.3
41.42
41.25

HACKETT DRIVE

21
Not to Scale

CLOSED ROAD

37.57
37.5

11298
113 m^2

COMPILED FROM LAND ADMINISTRATION
PLAN 14396

SUBJECT TO SURVEY - NOT FOR ALIENATION PURPOSES

Superseded - Copy for Sketch Only

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WESTERN AUSTRALIA

TITLE NUMBER

Volume	Folio
LR3140	662

RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 11298 ON DEPOSITED PLAN 189686

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: WATER CORPORATION OF POST OFFICE BOX 100, LEEDERVILLE
(XE G948465) REGISTERED 11/11/1998

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. G574460 RESERVE 36225 FOR THE PURPOSE OF PIPELINE REGISTERED 4/9/1997.
   G948465 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. REGISTERED 11/11/1998.
2. O045120 EASEMENT TO CONSERVATION AND LAND MANAGEMENT EXECUTIVE BODY FOR ACCESS PURPOSES. SEE DEPOSITED PLAN 413699. REGISTERED 5/12/2018.

Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	LR3000-584 (11298/DP189686)
PREVIOUS TITLE:	LR3000-584
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF PERTH

END OF PAGE 1 - CONTINUED OVER

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RESPONSIBLE AGENCY: WATER CORPORATION

NOTE 1: K081794 CORRESPONDENCE FILE 02256-1979-01RO
NOTE 2: K082810 SUBJECT TO SURVEY - NOT FOR ALIENATION PURPOSES

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LR3128/401 (Subject to Dealing)

4 Australia II Drive, CRAWLEY 6009

Reserve Details Report - 17375

Reserve	17375	Legal Area (ha)	19.2416
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	RECREATION
File Number	00292-1920-06RO		
Notes	WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 42 YEARS		
Additional Reserve Information	N/A		

Class	Responsible Agency	Date of Last Change
A	DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS (SCLM)	30/05/2006

Management Order	Document Number
CONSERVATION COMMISSION OF WESTERN AUSTRALIA	H919379

Land Use
RECREATION

Local Government Authority
CITY OF PERTH

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3045/148	Lot 6591 On Deposited Plan 165992	9 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	143293	974.829
LR3126/206 (Subject to Dealing)	Lot 5390 On Deposited Plan 206012	6A Australia II Drive, CRAWLEY 6009	00292-1920-06RO.	152583	2016.56
LR3126/207	Lot 6592 On Deposited Plan 165992	13 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	143294	974.829
LR3126/208	Lot 6593 On Deposited Plan 165992	17 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	143295	974.829

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3126/209 (Subject to Dealing)	Lot 7568 On Deposited Plan 169295	6 Australia II Drive, CRAWLEY 6009	00292-1920-06RO.	152582	11028
LR3126/210	Lot 7996 On Deposited Plan 171317	Lot 7996 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	152579	766
LR3126/211	Lot 8167 On Deposited Plan 171833	3 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	152580	2952
LR3126/212	Lot 8168 On Deposited Plan 171833	3 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	152581	817
LR3126/213	Lot 8169 On Deposited Plan 171833	5 Hackett Drive, CRAWLEY 6009	00292-1920-06RO.	152578	187
LR3126/214	Lot 8442 On Deposited Plan 173974	12 Australia II Drive, CRAWLEY 6009	00292-1920-06RO.	152585	2891
LR3126/215	Lot 8443 On Deposited Plan 173974	10 Australia II Drive, CRAWLEY 6009	00292-1920-06RO.	152584	3847
LR3128/401 (Subject to Dealing)	Lot 14555 On Deposited Plan 32409	4 Australia II Drive, CRAWLEY 6009	00292-1920-06RO.	11032012	166113.868

Previous Certificates of Title	Status
LR3000/312	Cancelled
LR3044/898	Cancelled
LR3045/150	Cancelled
LR3045/151	Cancelled
LR3045/543	Cancelled
LR3093/217	Cancelled
LR3102/912	Cancelled
LR3120/324	Cancelled

Document Number/Gazette Page	Date	Type	Text
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED

Document Number/Gazette Page	Date	Type	Text
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
J750614	19/05/2006	Vesting Revoked	REVOKED
H919379	17/12/2002	Current Vesting	MANAGEMENT ORDER CONSERVATION COMMISSION OF WESTERN AUSTRALIA
I329984	17/12/2002	Current Area	19.2416
I329984	17/12/2002	Location	SWAN LOCATIONS 5390, 6591, 6592, 6593, 7568, 7996, 8167, 8168, 8169, 8442, 8443, 14555
I329984	17/12/2002	Survey Number	DP'S 206012, 165992, 169295, 171317, 171833, 173974, 32409
H919378	06/11/2001	Vesting Revoked	REVOKED ORDER DATED 14.10.1994
N/A	21/04/1995	Formerly	SWAN LOC 6591 (AS TO SWAN LOC 5390)
N/A	21/04/1995	Previous Lot/Locations	SWAN LOCATIONS 2887, 2888 (IN LIEU OF 3029), 2889 (IN LIEU OF 3059)
5190	14/10/1994	Public Plan	BG34 (2) 11.21 & 11.22
N/A	14/10/1994	Historical Vesting	VEST: NATIONAL PARKS AUTHORITY OF WA WPL (21YRS)
594	08/02/1991	Historical Area	18.9202
78	13/01/1989	Historical Area	20.5652
N/A	18/01/1985	Historical Area	24.4412 ACT 120 OF 1984 AND 24.5973 - ACT 95 OF 1980
639	29/02/1980	Historical Area	25.2006 ACT 46 - 1979
2444	29/07/1977	Area Increased by	ABT25.2112
172	31/01/1958	Area Reduced by	56.3.34.6 EXCLUDE LOC 5518

Document Number/Gazette Page	Date	Type	Text
938	22/03/1957	Historical Vesting	VEST NATIONAL PARKS AUTHORITY OF W A W P L 21YRS
943	22/03/1957	Boards	UNDER CONTROL NATIONAL PARKS BOARD
2237	19/09/1952	Historical Vesting	VEST TRUSTEES W P L 21YRS
441	10/05/1946	Historical Vesting	VEST TRUSTEES OF STATE GARDENS BOARD W P L 10YRS
847	28/08/1942	Boards	STATE GARDENS BOARD
87090	22/01/1937	By-Laws	[No text]
1187	07/08/1936	By-Laws	[No text]
2229	29/11/1935	By-Laws	[No text]
2188	02/10/1931	By-Laws	[No text]
1405	12/06/1931	Re-Gazettal	BOUNDARIES
1985	22/08/1930	Historical Area	ABT 250.0.0
1985	22/08/1930	Previous Lot/Locations	ABT250.0.0
135	24/01/1930	By-Laws	[No text]
285	20/02/1925	By-Laws	[No text]
1526	22/08/1924	By-Laws	[No text]
1093	27/06/1924	Area Increased by	INCL.FORESHORE
2098	25/11/1921	Area Increased by	79.1.6 INCLUDE LOC 3059
1499	26/08/1921	Area Increased by	71.0.6 INCLUDE FORESHORE
1096	24/06/1921	Area Increased by	44.0.6 INCLUDE LOC 3029
969	18/02/1921	By-Laws	[No text]
96	21/01/1921	Area Increased by	INCLUDE FORESHORE LAND ADJ.SWAN 2887,2888,2889
2228	17/12/1920	Boards	STATE GARDENS
2228	17/12/1920	By-Laws	[No text]
2041	12/11/1920	Class	A
142	23/01/1920	Historical Class	C
142	23/01/1920	Original Gazettal and page	ORIGINAL GAZETTE
N/A	23/01/1920	Current Purpose	RECREATION

Document Number/Gazette Page	Date	Type	Text
N/A	23/01/1920	Correspondence File Number	292-1920
N/A	23/01/1920	Original Area	44.0.0
N/A	23/01/1920	Street Name	HACKETT DRIVE
N/A	N/A	Comment	A SPECIAL SURVEY CREATING SWAN LOC.7996 ON DIA,
N/A	N/A	Comment	P 334
N/A	N/A	Comment	SURVEYED FOR LEASING PURPOSES ONLY CORR.292/20,V3,
N/A	N/A	Comment	SWAN LOC.8167,8168,8169 SUBJECT OF DIA.71833 ARE
N/A	N/A	Area Reduced by	24.5973 ACT 95 - 1980
N/A	N/A	Comment	TEAS ROOMS.CORR.446/66,P13
N/A	N/A	Area Reduced by	65.2.0 ,P126
N/A	N/A	Comment	71317 WAS MADE TO COVER THE AREA TO BE LEASED FOR

date: May 12, 2025, 10:21:49 AM

VACANCIES IN THE PUBLIC SERVICE.

Department.	Position.	Salary.	Date returnable.
Colonial Secretary's (Medical Department)	Matron, Women's Home, Fremantle	£120—£156 (with board, quarters, fuel, light, and uniform)	31st January, 1920
Crown Law	Third Metropolitan Stipendiary Magistrate, Fremantle	£504—£636 ...	7th February, 1920
Forests	Clerk in Charge of Registration and Accounts *	£240—£300 ...	7th February, 1920

Applications are called under Section 38 of "The Public Service Act, 1904," and are to be addressed to the Public Service Commissioner, and should be made on the prescribed form, obtainable from the offices of the various Permanent Heads of Departments. *Applicants to state their knowledge of and experience in registration of mortgages, transfers, etc.

G. W. SIMPSON,
Public Service Commissioner.

Department of Lands and Surveys,
Perth, 23rd January, 1920.

THE CEMETERIES ACT, 1897, AND AMENDMENTS.

Appointment of Board, Busselton Cemetery (Reserve 17319).

Corres. 1332/00.

HIS Excellency the Governor in Executive Council has been pleased to appoint, under the provisions of "The Cemeteries Act, 1897," and Amending Acts, "The Municipality of Busselton" as a Board to control and manage the Busselton Cemetery, Reserve 17319.

Karrakatta Cemetery Board. Appointment.

Corr. 8074/96, Vol. 4.

HIS Excellency the Governor in Executive Council has been pleased to appoint, under the provisions of "The Cemeteries Act, 1897," and Amending Acts, Councillor Lieut.-Col. S. R. Roberts (Subiaco Municipality) as a Member of the Karrakatta Cemetery Board, during the occupancy of the Mayoral Chair by Mr. Lional T. Boas, and *vice* Mr. J. Delamare, retired.

FORFEITURES.

THE undermentioned leases have been forfeited under Section 136 of "The Land Act, 1898," for non-payment of rent to 31st December, 1919:—

Name, District, Lease No., Area, Rent, and Corres. No.

Breakell, R. F. and Frederick, Avon (pt. 14255), 8787/68 (1,241), £17 1s. 4d.; 8057/13.

Breakell, Robert Francis, Avon (pt. 14255), 19807/74 (160); 8055/13.

Breakell, Frederick, Avon (pt. 14255), 19808/74 (160); 8056/13.

Drabble, Wm. L. L.; Drabble, George, Murray (708), 19232/55 (600), £29 12s. 6d.; 8988/07.

Drabble, Wm. L. L.; Drabble, George, Murray (469), 12478/55 (160), £7 17s. 2d.; 4014/05.

Drabble, Wm. L. L.; Drabble, George, Murray (646 and 707), 3224/68 (1,214), £37 19s.; 5308/07.

Hancock, Cecil, Kojonup (5638), 22288/55 (260), £26; 14545/08.

Hancock, Cecil, Kojonup (3807), 11210/56 (160), £15 4s. 10d.; 6894/12.

Hancock, Cecil, Kojonup (3015), 23565/55 (160), £16; 4733/09.

Hancock, Cecil, Kojonup (3334), 15340/55 (100), £10; 371/06.

Hancock, Cecil, Kojonup (3165), 6183/56 (100), £10; 1348/08.

Hancock, Cecil, Kojonup (3530), 12872/55 (100), £7 3s. 5d.; 5371/05.

Hancock, Cecil, Kojonup (3531), 12871/55 (100), £5 12s. 6d.; 5372/05.

Hancock, Cecil, Kojonup (3411), 12063/55 (155¼), £15 10s.; 3009/05.

Orr, James Bransom, Esperance (728, 130, 731, 732, and pt. 742), 36704/55 (843½), 12s. 2d.; 7520/19.

Orr, James Bransom, Esperance (pt. 742), 21532/74 (160); 7520/19.

Walton, Harry Grant, Ninghan, 2561/93 (22,000), £33 1s. 5d.; 1617/15.

The undermentioned leases have been cancelled under Section 137A as abandoned:—

Name, District, Lease No., Area, Rent, and Corres. No.

Lewis, A. F. M., Darkan Lot 139, 803/153c (4), abandoned; 7210/13.

Percy and Davis, Victoria, 1658/93 (6,000), abandoned; 10530/07.

Percy and Davis, Victoria, 1856/93 (about 1,800), abandoned; 2541/08.

Pettitt, George A., Torbay Lot 133, 35978/55 (75a. 1r. 20p.), abandoned; 32/17.

Warburton, E. E., Plantagenet (2738), 25436/55 (77½), abandoned; 2359/10.

Williams, William, Pingelly (311), 14090/47 (1r.), abandoned; 5248/08.

C. G. MORRIS,
Acting Under Secretary for Lands.

RESERVES.

HIS Excellency the Governor in Executive Council has been pleased to set apart as Public Reserves the lands described in the Schedules below, for the purposes therein set forth:—

8448/19.

COLLIE.—No. 17374 (Returned Soldiers' Institute. Bowling Green, and Tennis Court).—Lot No. 1174. (About 3 roods 19p.) (Reserve 15195 is hereby reduced.) (Plan Collie Sheet 1.)

292/20.

SWAN (Crawley).—No. 17375 (Recreation).—Loc. Nos. 2887, 2888, and 2889. (44 acres.) (Plan Crawley.)

6164/19.

KOJONUP (near Kojonup).—No. 17376 (Show Ground).—Loc. No. 7437. (50 acres.) (Reserve 9589 is hereby reduced.) (Plan 416D/40.)

2205/07.

AVON (near Kirk Rock).—No. 17377 (Water).—Loc. No. 21319. (About 43 acres 2r.) (Reserve 10939 is hereby reduced.) (Plan 3777A/40, B2.)

C. G. MORRIS,
Acting Under Secretary for Lands.

The Land Act, 1933-1939.

ORDER IN COUNCIL.

Corr. No. 292/20.

WHEREAS by section 33 of the Land Act, 1933-1939, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order, and with power of sub-leasing; and whereas it is deemed expedient that reserve A17375 should vest in and be held by George Loder Needham, Herbert William Byfield and Thomas Suter Parry as Trustees of the State Gardens Board in trust for Recreation: Now, therefore, His Excellency the Lieutenant-Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the before-mentioned reserve shall vest in and be held by George Loder Needham, Herbert William Byfield and Thomas Suter Parry as Trustees of the State Gardens Board in trust for Recreation, with power to the said George Loder Needham, Herbert William Byfield and Thomas Suter Parry as Trustees of the State Gardens Board to lease the whole or any portion of the said reserve for any term not exceeding ten (10) years from the date of the lease.

(Sgd.) R. H. DOIG,
Clerk of the Council.

The Land Act, 1933-1939.

ORDER IN COUNCIL.

Corr. No. 6797/21.

WHEREAS by section 33 of the Land Act, 1933-1939, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order in trust for the like or other public purposes to be specified in such order; and whereas it is deemed expedient that reserve No. 17953 should vest in and be held by the Dalwallinu Road Board in trust for the purpose of an Agricultural Hall Site: Now, therefore, His Excellency the Lieutenant-Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the before-mentioned reserve shall vest in and be held by the Dalwallinu Road Board in trust for the purpose aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

(Sgd.) R. H. DOIG,
Clerk of the Council.

The previous Order in Council dated 28th November, 1945, vesting reserve 17953 in trustees is hereby superseded.

Motor Vehicle (Third Party Insurance) Act, 1943-44.
Section 3, Subsection (4).

ORDER IN COUNCIL.

P.W. 585/44.

WHEREAS under the provisions of subsection (4) of section 3 of the Motor Vehicle (Third Party Insurance) Act, 1943-44, the Governor may by Order in Council prescribe for the purposes of that subsection any State or territory of the Commonwealth in which the Governor is satisfied there is in operation legislation for the carrying out of objects substantially similar to the objects of the said Act; and whereas it is desirable that the State of Queensland shall be so prescribed: Now, therefore, His Excellency the Lieutenant-Governor, acting with the advice and consent of the Executive Council and under the provisions of the said Act, doth hereby prescribe for the purposes of subsection (4) (a) of section 3 of the Motor Vehicle (Third Party Insurance) Act, 1943-44, the State of Queensland as a State of the Commonwealth to which subsection (4) (a) of section 3 of the said Act shall apply.

Approved by His Excellency the Lieutenant-Governor in Executive Council this 2nd day of May, 1946.

(Sgd.) R. H. DOIG,
Clerk of the Council.

JUSTICES OF THE PEACE.

Premier's Department,
Perth, 8th May, 1946.

HIS Excellency the Lieutenant-Governor in Executive Council has been pleased to approve of the appointment of Sydney St. George Royce, Esquire, of Flinder's Bay, as a Justice of the Peace for the Mitchell Magisterial District in lieu of the Perth Magisterial District.

Also of the acceptance of the resignation of Ashton Hunter, Esquire, of Katanning, as a Justice of the Peace for the Stirling Magisterial District.

R. H. DOIG,
Secretary, Premier's Office.

THE AUDIT ACT, 1904.

The Treasury,
Perth, 1st May, 1946.

THE following appointments have been approved:—Receivers of Revenue—Trsy. No. 528/46—Messrs. A. J. Salmon and J. G. Blockley for The State Electricity Commission.

A. J. REID,
Under Treasurer.

VACANCIES IN THE PUBLIC SERVICE.

Department.	Position.	Salary.	Date Returnable.
Metropolitan Water Supply ...	Clerk (Engineering)	Class 7, £342—£366 (Limit £354)	1946 11th May.
Do. do. ...	Clerks (Items 1277 and 1278)	Class 9, £294—£306	do.
Do. do. ...	Clerk (Item 1284)	Class 10, £279—£288	do.
Do. do. ...	Telephonist (Loftus Street)*	£55—£125	do.
Crown Law	Trust Officer (Items 1441 and 1442)	Class 9, £294—£306	18th May.
Public Health	Schools Nurse*	Classes 2–3, £220—£245 (Limit £230)	do.

* Applications are also called under section 29 of the Public Service Act.

Applications are called under section 38 of the Public Service Act, 1904, and are to be addressed to the Public Service Commissioner and should be made on the prescribed form, obtainable from the offices of the various Permanent Heads of Departments.

S. A. TAYLOR, Public Service Commissioner.

tinuing Southerly and North-Easterly around Exmouth Gulf along the sea coast to the starting point; and, including all the islands off the coast.

Given under my hand and the Public Seal of the said State, at Perth, this 11th day of September, 1952.

By His Excellency's Command,

(Sgd.) C. H. SIMPSON,
Minister for Mines.

GOD SAVE THE QUEEN ! ! !

AT a meeting of the Executive Council held in the Executive Council Chamber, at Perth, this 11th day of September, 1952, the following Orders in Council were authorised to be issued:—

The Land Act, 1933-1950.

ORDER IN COUNCIL.

Corr. No. 1840/52.

WHEREAS by section 33 of the Land Act, 1933-1950, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order in trust for the like or other public purposes to be specified in such order; and whereas it is deemed expedient that reserve No. 23608 should vest in and be held by the Corrigin Road Board in trust for the purpose of a Children's Playground: Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by the Corrigin Road Board in trust for the purpose aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

R. H. DOIG,
Clerk of the Council.

The Land Act, 1933-1950.

ORDER IN COUNCIL.

Corr. No. 2739/15.

WHEREAS by section 33 of the Land Act, 1933-1950, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order in trust for the like or other public purposes to be specified in such order; and whereas it is deemed expedient that reserve No. 21593 should vest in and be held by the Northampton Road Board in trust for the purpose of an Agricultural Hall Site: Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by the Northampton Road Board in trust for the purpose aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

R. H. DOIG,
Clerk of the Council.

The previous Order in Council dated 1st September, 1936, is hereby superseded.

The Land Act, 1933-1950.

ORDER IN COUNCIL.

Corr. No. 2751/16.

WHEREAS by section 33 of the Land Act, 1933-1950, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order, and with power of sub-leasing; and whereas it is deemed expedient that reserve No. 16588 (Wongan Hills Lot 156) should vest in and be held by the Wongan-Ballidu Road Board in trust for Recreation (Golf Links): Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by the Wongan-Ballidu Road Board in trust for Recreation (Golf Links) with power to the said Wongan-Ballidu Road Board, subject to the approval in writing of the Minister for Lands being first obtained to lease the whole or any portion of the said reserve for any term not exceeding twenty-one (21) years from the date of the lease.

R. H. DOIG,
Clerk of the Council.

The previous Order in Council dated 7th May, 1919, is hereby superseded.

The Land Act, 1933-1950.

ORDER IN COUNCIL.

Corr. No. 292/20, Vol. 2.

WHEREAS by section 33 of the Land Act, 1933-1950, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order, and with power of sub-leasing; and whereas it is deemed expedient that Class A Reserve 17375 at Crawley should vest in and be held by Herbert Edward Bersey Smith, Herbert William Byfield, Charles Austin Gardner, Robert Harold Miller and Alfred Charles Shedley in trust for Recreation: Now, therefore, His Excellency the Lieutenant-Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by Herbert Edward Bersey Smith, Herbert William Byfield, Charles Austin Gardner, Robert Harold Miller and Alfred Charles Shedley in trust for Recreation with power to the said Herbert Edward Bersey Smith, Herbert William Byfield, Charles Austin Gardner, Robert Harold Miller and Alfred Charles Shedley to lease the whole or any portion of the said reserve for any term not exceeding twenty-one (21) years from the date of the lease.

R. H. DOIG,
Clerk of the Council.

The previous Order in Council dated 2nd May, 1946, is hereby superseded.

The Land Act, 1933-1950.

ORDER IN COUNCIL.

Corr. No. 552/52.

WHEREAS by section 33 of the Land Act, 1933-1950, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order, and with power of sub-leasing; and whereas it is deemed expedient that reserve No. 23606 (Collie Lot 1860) should vest in and be held by the Collie Coalfields Road Board in trust for Recreation and Park: Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by the Collie Coalfields Road Board in trust for Recreation and Park, with power to the said Collie Coalfields Road Board, subject to the approval in writing of the Minister for Lands being first obtained, to lease the whole or any portion of the said reserve for any term not exceeding twenty-one (21) years from the date of the lease.

R. H. DOIG,
Clerk of the Council.

Workers' Compensation Act, 1912-1951.

ORDER IN COUNCIL.

WHEREAS it is enacted by section 13 of the Workers' Compensation Act, 1912-1951, that it shall be obligatory for every employer to obtain from an incorporated insurance office approved by the Minister a policy of insurance for the full amount of the liability to pay compensation under the said Act to all workers employed by him, but that if an employer proves to the satisfaction of the Minister that such employer has established a fund for

AT a Meeting of the Executive Council held in the Executive Council Chamber, at Perth, this 26th day of February, 1957, the following Orders in Council were authorised to be issued:—

Land Act, 1933-1956.

ORDER IN COUNCIL.

Corr. No. 1593/56.

WHEREAS by section 33 of the Land Act, 1933-1956, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order, and with power of subleasing; and whereas it is deemed expedient that the reserves enumerated in the first and second schedules hereto should vest in and be held by the National Parks Board of Western Australia in trust for the respective purposes shown in the schedules: Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the undermentioned reserves shall vest in and be held by the National Parks Board of Western Australia in trust for the respective purposes with power to the said National Parks Board of Western Australia to lease the whole or any portion of the said reserves for any term not exceeding 21 years from the date of the lease. (The previous Orders in Council respecting these reserves are hereby superseded.)

R. H. DOIG,
Clerk of the Council.

First Schedule.

Reserve No., Purpose, Corr. No.

A2994; Park Lands; 1432/95.
A2995; Public Park; 2258/48.
A3355; Public Recreation; 4189/95.
A7537; National Park and Reserve for Native Game; 13479/98.
A8164; National Park; 11240/01.
A8615; Park Lands; 3410/92.
A8650; Park Lands; 3410/92.
A8651; Park Lands; 3410/92.
A9868; Protection and preservation of Caves and Flora, and for Health and Pleasure Resort; 1179/03.
12439; Camping; 1887/07.
A14792; National Park; 3809/08.
15997; Protection of Flora; 6782/14.
17070; Recreation, Camping, enjoyment by the public for holidays thereon and for purposes ancillary thereto; 833/16.
A17375; Recreation; 292/20.
18722; National Park; 1673/21.
18723; National Park and Tourist Resort; 1673/21.
18724; National Park; 1673/21.
18725; National Park; 1673/21.
A18987; National Park; 8711/12.
A19175; National Park; 7461/10.
A19176; National Park; 7461/10.
20357; Park and Recreation; 4930/26.
A20701; Public Gardens; 292/20.
20745; Park and Recreation; 1179/03.
20804; Public Recreation; 5997/22.
A21054; Disused Burial Ground; 4509/22.
A21451; Camping; 2045/35.
21569; Recreation; 322/36.
22515; National Park; 1842/31.
22915; Recreation and Camping; 3637/30.
A23124; Recreation and Beautification; 1076/37.
23894; Recreation; 1368/54.
24436; Protection of Flora; 3637/55.

Second Schedule.

The portion of Class "A" Reserve 1720 comprised in Perth Lot L65 and the Northern moiety of lot L64, for the purpose of Public Park. Class "A" Reserve 13045, for the purpose of Park Lands, excepting that portion situated Eastward of the Frankland River, Northward of a Northern boundary of Hay Location 463, and Westward of the Western side of a 150-link road along a Western boundary of said location 463 and the Western boundary of location 1410.

Land Act, 1933-1956.

ORDER IN COUNCIL.

Corr. No. 2821/18.

WHEREAS by section 33 of the Land Act, 1933-1956, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the Order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such order and with power of subleasing; and whereas it is deemed expedient that Class "A" reserve No. 17060 (at Keane's Point) should vest in and be held by the National Parks Board of Western Australia in trust for the purpose of Recreation and purposes incidental thereto: Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserve shall vest in and be held by the National Parks Board of Western Australia in trust for Recreation and purposes incidental thereto with power to the said National Parks Board of Western Australia to lease the whole or any portion of the said reserve for any term not exceeding 50 years from the date of the lease.

R. H. DOIG,
Clerk of the Council.

Land Act, 1933-1956.

ORDER IN COUNCIL.

WHEREAS by section 33 of the Land Act, 1933-1956, it is made lawful for the Governor to direct that any reserve shall vest in and be held by any municipality, road board, or other person or persons to be named in the order in trust for the like or other public purposes to be specified in such order, and whereas it is deemed expedient as follows:—

Corr. No. 672/99, Vol. 2.—That the portion of Class "A" Reserve 1150 comprised in Perth Lots B5 and B6 should vest in and be held by the Minister for Lands in trust for the purpose of Government Gardens.

Corr. No. 672/99, V. 2.—That Class "A" Reserve No. 1149 should vest in and be held by the Minister for Lands in trust for the purpose of a Government Domain.

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, doth hereby direct that the beforementioned reserves shall vest in and be held by the Minister for Lands, in trust for the purposes aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

R. H. DOIG,
Clerk of the Council.

AT a meeting of the Executive Council held in the Executive Council Chambers, at Perth, this 13th day of March, 1957, the following Orders in Council were authorised to be issued:—

Child Welfare Act, 1947-56.

ORDER IN COUNCIL.

WHEREAS by section 19 (2) (a) of the Child Welfare Act, 1947-56, it is provided that the Governor may appoint such persons, male or female, as he may think fit, to be members of any particular Children's Court and may determine the respective seniorities of such members: Now therefore His Excellency the Lieutenant-Governor by and with the

NOT TO BE REMOVED FROM OFFICE OF TITLES LI 158

NO DUPLICATE ISSUED

REGISTER VOL.	BOOK FOL.
3102	912

Sundry Document F706618

Corr. 292/1920 V5

WESTERN AUSTRALIA

Crown Land Record

CANCELLED

The undermentioned land shown on the sketch in the First Schedule hereto is land of the Crown subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

3102 VOL. 912 FOL.

Dated 19th October, 1995

CHIEF EXECUTIVE OFFICER

LAND REFERRED TO

Swan Locations 2887, 2888, 2889, 5390, 6592, 6593, 7568, 7996, 8167, 8168, 8169, 8442 & 8443 on Land Administration Reserve Plan 33

FIRST SCHEDULE

CANCELLED

Production of Graphic at Suitable Scale is Inappropriate.

Refer to Original Surveys Quoted in Land Description.

Unsurveyed boundaries are subject to survey and should not be adopted without investigation - not for alienation purposes.

FOR ENCUMBRANCES AND OTHER MATTERS AFFECTING THE LAND SEE SECOND SCHEDULE

Title is cancelled

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS RECORD OR ANY NOTIFICATION HEREON

05901/3/92-4M-5/9499

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Title is cancelled

SECOND SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

PARTICULARS	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	CERT. OFFICER
Classified "A" Reserve No. 17375 for the purpose of "Recreation."	Sundry	F706618				
Vested in National Parks Authority of Western Australia with power to lease the whole or any portion for any term not exceeding 21 years, subject to consent of the Minister for Lands. In Gov. Gaz. 14.10.94	Sundry	F706618		15.30		
Management Order Revoked.	Revocation	H919378	6.11.01	14.21		
"A" Reserve No. 17375 amended to comprise Swan Location 14555 on Deposited Plan 32409 (in lieu of Swan Locations 2887, 2888 & 2889) and to also comprise Swan Locations 5390, 6591, 6592, 6593, 7568, 7996, 8167, 8168, 8169, 8442 and 8443.	Amendment of Reserve	I329984	17.12.02	13.39		
Swan Locations 5390, 6592, 6593, 7568, 7996, 8167, 8168, 8169, 8442 and 8443 to Vol. 3126 Fol's. 206 to 215 respectively.	Application	H919377	17.12.02	13.39		
Cancelled: Balance Swan Location 14555 to Vol. 3128 Fol. 401 and Swan Location 6591 to Vol. 3045 Fol. 148.	Application	I329985	17.12.02	13.39		

Superseded - Copy for Sketch Only

APPLICATION I329985

WESTERN AUSTRALIA

REGISTER NUMBER
N/A

VOLUME LR 3128 FOLIO 401

QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 14555 ON DEPOSITED PLAN 32409

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE continued overleaf)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CONSERVATION COMMISSION OF WESTERN AUSTRALIA OF LOCKED BAG 104, BENTLEY DELIVERY CENTRE, BENTLEY

(XE H919379) REGISTERED 17 DECEMBER 2002.

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE continued overleaf)

1. PART CLASS A RESERVE 17375 FOR THE PURPOSE OF RECREATION.
H919379 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 42 YEARS. REGISTERED 17.12.2002.

Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statement set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF THE LAND:	DP 32409
PREVIOUS TITLE:	LR 3102-912
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AREA:	NO LOCAL GOVERNMENT AUTHORITY INFORMATION AVAILABLE.

NOTE 1:	A000001A	CORRESPONDENCE FILE 00292-1920-06RO
NOTE 2:		LAND PARCEL IDENTIFIER OF SWAN LOCATION 14555 CHANGED TO LOT 14555 ON DEPOSITED PLAN 32409 ON 17-DEC-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.
NOTE 3:		SUBJECT TO SURVEY – NOT FOR ALIENATION PURPOSES

END OF PAGE 1 – CONTINUED OVER

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WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
LR3128	**401**

RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 14555 ON DEPOSITED PLAN 32409

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CONSERVATION COMMISSION OF WESTERN AUSTRALIA OF LOCKED BAG, 104 BENTLEY DELIVERY CENTRE, BENTLEY

(XE H919379) REGISTERED 17/12/2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. CLASS A RESERVE 17375 FOR THE PURPOSE OF RECREATION
   H919379 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 42 YEARS. REGISTERED 17/12/2002.
2. O510654 LEASE TO THE ROYAL PERTH YACHT CLUB OF WESTERN AUSTRALIA (INC) OF 6 AUSTRALIA II DRIVE CRAWLEY WA 6009 EXPIRES: SEE LEASE. AS TO PORTION ONLY REGISTERED 30/9/2020.
   O510655 EXTENSION OF LEASE. REGISTERED 30/9/2020.
   O510656 MORTGAGE TO WESTPAC BANKING CORPORATION REGISTERED 30/9/2020.

Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

END OF PAGE 1 - CONTINUED OVER

Subject to dealing

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SKETCH OF LAND:	LR3128-401 (14555/DP32409)
PREVIOUS TITLE:	LR3102-912
PROPERTY STREET ADDRESS:	4 AUSTRALIA II DR, CRAWLEY.
LOCAL GOVERNMENT AUTHORITY:	CITY OF PERTH
RESPONSIBLE AGENCY:	DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS (SCLM)

NOTE 1: A000001A CORRESPONDENCE FILE 00292-1920-06RO.
NOTE 2: SUBJECT TO SURVEY - NOT FOR ALIENATION PURPOSES

Subject to dealing

LR3151/547

26 Riverside Road, EAST FREMANTLE 6158

Reserve Details Report - 48325

Reserve	48325	Legal Area (ha)	2998.3977
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	PROTECTION AND ENHANCEMENT OF THE ECOLOGICAL AND COMMUNITY BENEFITS AND AMENITY OF THE SWAN AND CANNING RIVERS
File Number	00469-2010-01RO;00736-1977-01RO;01746-2005-01RO;03076-1971-01RO;03429-1990-01RO;03580-1971-01RO;1140/1998;51340-2004-01RO		
Notes	N/A		
Additional Reserve Information	RESERVE COMPRISES LOTS 300 TO 306, 504, 4893, 11523, 13017, 13598, 13599, 13949 & 14082 (O511739)		

Class	Responsible Agency	Date of Last Change
C	DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS (SCLM)	20/01/2023

Management Order	Document Number
VESTING SWAN RIVER TRUST	K668071

Land Use
LANDSCAPE PROTECTION

Local Government Authority
CITY OF BAYSWATER
CITY OF BELMONT
CITY OF NEDLANDS
CITY OF PERTH
CITY OF SWAN
TOWN OF EAST FREMANTLE
TOWN OF MOSMAN PARK

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3026/703	Lot 13017 On Deposited Plan 193785	No Street Address Information Available	1140/1998.	1316897	9887.891
LR3116/535	Lot 13598 On Deposited Plan 220695	No Street Address Information Available	00736-1977-01RO.	1316772	1895.792
LR3116/536	Lot 13599 On Deposited Plan 220695	No Street Address Information Available	00736-1977-01RO.	1316773	3861.008
LR3119/943	Lot 11523 On Deposited Plan 189858	No Street Address Information Available	03429-1990-01RO.	11064907	235.003
LR3121/234	Lot 13949 On Deposited Plan 27474	No Street Address Information Available	03580-1971-01RO.	1364695	6534
LR3122/675	Lot 14082 On Deposited Plan 26651	No Street Address Information Available	03076-1971-01RO.	1357968	568.333
LR3151/533	Lot 304 On Deposited Plan 47453	No Street Address Information Available	01746-2005-01RO	11717082	2231.765
LR3151/534	Lot 305 On Deposited Plan 47453	No Street Address Information Available	01746-2005-01RO	11717084	636214.48
LR3151/535	Lot 306 On Deposited Plan 47453	No Street Address Information Available	01746-2005-01RO	11717086	95256.281
LR3151/547	Lot 300 On Deposited Plan 47450	26 Riverside Road, EAST FREMANTLE 6158	01746-2005-01RO	11713863	21806263.238
LR3151/548	Lot 301 On Deposited Plan 47451	171 Riverside Drive, PERTH 6000	01746-2005-01RO	11717682, 11714773	4160968.175
LR3151/549	Lot 302 On Deposited Plan 47452	No Street Address Information Available	01746-2005-01RO	11717678	3109747.831
LR3151/550	Lot 303 On Deposited Plan 47452	No Street Address Information Available	01746-2005-01RO	11717679	136131.488
LR3151/551	Lot 4893 On Deposited Plan 157903	Lot 4893 Riverside Road, EAST FREMANTLE 6158	01746-2005-01RO	226545	1735

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3166/579	Lot 504 On Deposited Plan 408106	1 Barrack Square, PERTH 6000	00469-2010-01RO	12218181	17079

Previous Certificates of Title	Status

Document Number/Gazette Page	Date	Type	Text
O511739	30/09/2020	Current Area	2998.3977
N361112	22/06/2016	Historical Area	3000.0000
N111636	03/09/2015	Historical Responsible Agency	SWAN RIVER TRUST
L373840	14/07/2010	Historical Responsible Agency	DEPARTMENT OF WATER
K668071	28/07/2008	Current Vesting	VESTING SWAN RIVER TRUST
K668067	28/07/2008	Class	C
K668067	28/07/2008	Current Purpose	PROTECTION AND ENHANCEMENT OF THE ECOLOGICAL AND COMMUNITY BENEFITS AND AMENITY OF THE SWAN AND CANNING RIVERS
K668067	28/07/2008	Historical Area	3002.0000

date: May 12, 2025, 11:07:14 AM

WESTERN AUSTRALIA

TITLE NUMBER

Volume	Folio
LR3151	547

RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 300 ON DEPOSITED PLAN 47450

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE VESTED UNDER STATUTE

PRIMARY INTEREST HOLDER: SWAN RIVER TRUST OF PO BOX 6740, EAST PERTH
(XE K668071) REGISTERED 28/7/2008

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. K668067 RESERVE 48325 FOR THE PURPOSE OF PROTECTION AND ENHANCEMENT OF THE ECOLOGICAL AND COMMUNITY BENEFITS AND AMENITY OF THE SWAN AND CANNING RIVERS REGISTERED 28/7/2008.
2. K668071 CARE, CONTROL AND MANAGEMENT PURSUANT TO SECTION 11(7) OF THE SWAN AND CANNING RIVERS MANAGEMENT ACT 2006. REGISTERED 28/7/2008.
3. L720794 MEMORIAL. HERITAGE OF WESTERN AUSTRALIA ACT 1990. AS TO PORTION ONLY. SEE DEPOSITED PLAN 71474 LODGED 30/8/2011.
4. L969162 CAVEAT BY MINISTER FOR WORKS AS TO PORTION ONLY. LODGED 21/6/2012.
5. M700490 LEASE TO VIEWNORTH INVESTMENTS PTY LTD OF CARE OF JOE TOTARO, 71-73 DALY STREET, BELMONT EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 9/7/2014.
   - M700491 VARIATION OF LEASE M700490 REGISTERED 9/7/2014.
   - N102645 TRANSFER OF LEASE M700490, LESSEE NOW DOME COFFEES AUSTRALIA PTY LTD OF 219-221 RAILWAY PARADE MAYLANDS REGISTERED 25/8/2015.
   - N193431 MORTGAGE OF LEASE M700490 TO WESTPAC BANKING CORPORATION REGISTERED 4/12/2015.
6. N231289 LEASE TO THE MINISTER FOR TRANSPORT OF CARE OF DEPARTMENT OF TRANSPORT 1 ESSEX STREET FREMANTLE WA EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 20/1/2016.
7. O510750 LEASE TO THE ROYAL PERTH YACHT CLUB OF WESTERN AUSTRALIA (INC) OF 6 AUSTRALIA II DRIVE CRAWLEY WA 6009 EXPIRES: SEE LEASE. AS TO PORTION ONLY

END OF PAGE 1 - CONTINUED OVER

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REGISTERED 30/9/2020.

O510751 MORTGAGE TO WESTPAC BANKING CORPORATION REGISTERED 30/9/2020.

8. Q171104 LEASE TO BOAT PENS PTY LTD OF 9 BISHOP STREET JOLIMONT WA 6014 EXPIRES: SEE LEASE. AS TO PORTION ONLY REGISTERED 11/10/2024.

Q171105 MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD REGISTERED 11/10/2024.

9. Q252506 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 16/12/2024.

Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP47450
PREVIOUS TITLE:	LR3151-547
PROPERTY STREET ADDRESS:	26 RIVERSIDE RD, EAST FREMANTLE.
LOCAL GOVERNMENT AUTHORITY:	TOWN OF EAST FREMANTLE, CITY OF PERTH
RESPONSIBLE AGENCY:	DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS (SCLM)

NOTE 1: K668046 CORRESPONDENCE FILE 01746-2005-01RO
NOTE 2: SUBJECT TO SURVEY - NOT FOR ALIENATION PURPOSES

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LR3147/25

Lot 10605 Hackett Drive, CRAWLEY 6009

Reserve Details Report - 39045

Reserve	39045	Legal Area (ha)	0.1561
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	PARKING
File Number	01007-1984-01RO		
Notes	N/A		
Additional Reserve Information	N/A		

Class	Responsible Agency	Date of Last Change
C	DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)	05/05/2008

Management Order	Document Number
VEST CITY OF SUBIACO	N/A

Land Use
PARKING

Local Government Authority
CITY OF PERTH

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3147/25	Lot 10605 On Deposited Plan 186614	Lot 10605 Hackett Drive, CRAWLEY 6009	01007-1984-01RO	152577	1561

Previous Certificates of Title	Status

Document Number/Gazette Page	Date	Type	Text
1517	03/05/1985	Current Vesting	VEST CITY OF SUBIACO
1543	03/05/1985	Class	C
1543	03/05/1985	Original Gazettal and page	ORIGINAL GAZETTE

Document Number/Gazette Page	Date	Type	Text
N/A	03/05/1985	Current Area	.1561
N/A	03/05/1985	Current Purpose	PARKING
N/A	03/05/1985	Correspondence File Number	1007/984
N/A	03/05/1985	Location	SWAN,10605
N/A	03/05/1985	Public Plan	PERTH 02 11.21,11.22
N/A	03/05/1985	Street Name	HACKETT DRIVE
N/A	03/05/1985	Survey Number	D:86614

date: May 12, 2025, 10:46:43 AM

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserve shall vest in and be held by the Shire of Greenough in trust for "Private Dwellings and Recreation" with power to the said Shire of Greenough to lease the whole or any portion thereof for any term not exceeding thirty (30) years from the date of the lease, or for the lifetime of the last surviving registered lessee of any portion of the said Reserve holding a lease on 18 February 1985 whichever term shall be the longer, subject nevertheless to the powers reserved to me by section 37 of the said Act.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDER IN COUNCIL.

File No. 2400/65.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the Order, in trust for any purpose specified in such Order and with power of leasing; and whereas it is deemed expedient that Reserve No. 29675 (Fremantle Lots 1942, 1962 and 1978) should vest in and be held by the Fremantle Port Authority in trust for "Harbour Purposes".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserve shall vest in and be held by the Fremantle Port Authority in trust for "Harbour Purposes" with power to the said Fremantle Port Authority to lease the whole or any portion thereof for any term not exceeding fifty years from the date of the lease, subject nevertheless to the powers reserved to me by section 37 of the said Act.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the Order in trust for the like or other public purposes to be specified in such Order: And where as it is deemed expedient as follows:—

File No. 3386/982.—That Reserve No. 39063 (Cockburn Sound Location 2789) should vest in and be held by the City of Cockburn, in trust for the purpose of "Public Utilities Services and Park".

File No. 3386/982.—That Reserve No. 39074 (Cockburn Sound Location 2790) should vest in and be held by the City of Cockburn in trust for the purpose of "Public Utilities Services and Park".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the abovementioned bodies, in trust for the purposes aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act and the condition that access to, and protection of, all services is assured.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the Order, in trust for any purpose specified in such Order and with power of leasing; and whereas it is deemed expedient as follows:—

File No. 3049/20.—That Reserve No. 17535 (Wellington Locations 3529 and 5375) should vest in and be held by the Shire of Harvey in trust for the purpose of "Recreation".

File No. 1662/62.—That Reserve No. 32462 (Nelson Locations 13100 and 13244 and Walpole Lot 234) should vest in and be held by the Shire of Manjimup in trust for the purpose of "Recreation and Golf Course".

File No. 817/985.—That Reserve No. 39059 (Cockburn Sound Location 2762) should vest in and be held by the City of Melville in trust for the purpose of "Club Premises".

File No. 2930/983.—That Reserve No. 39070 (Ashburton Location 127) should vest in and be held by the Shire of West Pilbara in trust for the purpose of "Recreation (Speedway)".

File No. 974/985.—That Reserve No. 39081 (Margaret River Lot 132) should vest in and be held by the Shire of Augusta-Margaret River in trust for the purpose of "Historical Settlement".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the abovementioned bodies in trust for the purposes aforesaid, with power to the said bodies, subject to the approval in writing of the Minister for Lands and Surveys to each and every lease or assignment of lease being first obtained, to lease the whole or any portion thereof for any term not exceeding twenty-one (21) years from the date of the lease, subject nevertheless to the powers reserved to me by section 37 of the said Act; provided that no such lease or assignment of lease shall be valid or operative until the approval of the Minister for Lands and Surveys or an officer authorised in that behalf by the Minister, has been endorsed on the Lease Instrument, or Deed of Assignment, as the case may be.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the order in trust for the like or other public purposes to be specified in such order; and whereas it is deemed expedient as follows:—

File No. 11357/898.—That Reserve No. 5542 (Swan Locations 1575 and 8692) should vest in and be held by the Uniting Church in Australia Property Trust (W.A.) in trust for the purpose of "Church Purposes".

File No. 9338/05.—That Class "A" Reserve No. 10004 (Kojonup Location 3986) should vest in and be held by the Shire of Cranbrook in trust for the purpose of "Parklands".

File No. 979/25.—That Reserve No. 18872 (Avon Location 24741) should vest in and be held by the Shire of Mt. Marshall in trust for the purpose of "Quarry (Gravel)".

File No. 1171/71.—That Reserve No. 31325 (Swan Locations 8735 and 10659) should vest in and be held by the City of Stirling in trust for the purpose of "Public Recreation".

File No. 808/79.—That Reserve No. 35919 (Victoria Location 11342) should vest in and be held by the Minister for Education in trust for the purpose of "Pre-Primary Centre".

File No. 1212/52.—That Reserve No. 37497 (Bunbury Lots 391, 445 and 652) should vest in and be held by the Bunbury Port Authority in trust for "Harbour Purposes".

File No. 469/985.—That Reserve No. 39023 (Swan Location 10655) should vest in and be held by the City of Belmont in trust for the purpose of "Public Recreation".

File No. 2327/984.—That Reserve No. 39036 (Bunbury Lots 668 and 669) should vest in and be held by the City of Bunbury in trust for the purpose of "Drainage".

File No. 1007/984.—That Reserve No. 39045 (Swan Location 10605) should vest in and be held by the City of Subiaco in trust for the purpose of "Parking".

File No. 532/985.—That Reserve No. 39046 (Swan Location 10575) should vest in and be held jointly by the Metropolitan Water Authority and the City of Stirling in trust for the purpose of "Sewerage Pumping Station and Recreation".

File No. 2023/984.—That Reserve No. 39048 (Oldfield Location 1446) should vest in and be held by the Minister for Water Resources in trust for the purpose of "Water Supply".

File No. 784/985.—That Reserve No. 39057 (Cockburn Sound Location 2798) should vest in and be held by the Minister for Water Resources in trust for the purpose of "Water Supply".

File No. 785/985.—That Reserve No. 39064 (Cockburn Sound Location 2799) should vest in and be held by the Metropolitan Water Authority in trust for the purpose of "Water Supply".

File No. 3210/77.—That Reserve No. 39065 (Leeman Lot 64) should vest in and be held by the Shire of Coorow in trust for the purpose of "Housing (Shire of Coorow)".

File No. 3105/983.—That Reserve No. 39079 (Murray Location 1780) should vest in and be held by the Minister for Water Resources in trust for the purpose of "Water Supply".

File No. 833/985.—That Reserve No. 39080 (Swan Location 10667) should vest in and be held by the City of Stirling in trust for the purpose of "Recreation".

File No. 1764/984.—That Reserve No. 39082 (Broome Lot 1865) should vest in and be held by the Shire of Broome in trust for the purpose of "Drainage".

File No. 2818/983.—That Reserve No. 39085 (Gregory Location 59) should vest in and be held by the Shire of West Pilbara in trust for the purpose of "Rubbish Disposal Site".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the abovementioned bodies in trust for the purposes aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDERS IN COUNCIL.

WHEREAS by section 34B (1) of the Land Act 1933, it is made lawful for the Governor to revoke an Order in Council issued pursuant to section 33 of that Act.

File No. 3049/20.—And whereas by Order in Council dated 29 June 1937 Reserve 17535 was vested in the Harvey Road Board in trust for the purpose of "Recreation".

File No. 2782/55 V4.—And whereas by Order in Council dated 19 February 1985, Reserve 24738 was vested in the Shire of Greenough in trust for the purpose of "Private Dwellings and Recreation" with power to lease the whole or any portion thereof for any term not exceeding thirty (30) years from the date of the lease.

File No. 2400/65.—And whereas by Order in Council dated 14 December 1977, Reserve 29675 was vested in the Fremantle Port Authority in trust for "Harbour Purposes" with power to lease the whole or any portion thereof for any term not exceeding fifty (50) years from the date of the lease.

File No. 1662/62. And whereas by Order in Council dated 15 March 1974, Reserve 32462 was vested in the Shire of Manjimup in trust for the purpose of "Recreation and Golf Course".

File No. 808/79.—And whereas by Order in Council dated 21 March 1979, Reserve 35919 was vested in the Minister for Education in trust for the purpose of "Pre-School Education".

File No. 1212/52.—And whereas by Order in Council dated 16 August 1983, Reserve 37497 was vested in the Bunbury Port Authority in trust for "Harbour Purposes".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, hereby directs that the beforementioned Orders in Council be revoked and the Vesting Orders cancelled accordingly.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDER IN COUNCIL.

File No. 660/985.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the Order, in trust for any of the purposes set forth in section 29 of the said Act, or for the like or other public purposes to be specified in such Order and with power of leasing; and whereas it is deemed expedient that Reserve No. 39047 (Kalgoorlie Lot 4098) should vest in and be held by the Honourable Barry James Hodge, M.L.A., Minister for Health for the time being and his successors in Office in trust for the purpose of "Housing (Health Department of Western Australia)".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserve shall vest in and be held by the Honourable Barry Hodge, M.L.A. Minister for Health for the time being and his successors in office in trust for Housing (Health Department of Western Australia)" with power to the said Honourable Barry James Hodge, M.L.A., Minister for Health for the time being and his successors in office to lease the whole or any portion thereof for any term, subject nevertheless to the powers reserved to me by section 37 of the said Act.

R. G. COOPER,
Clerk of the Council.

Land Act 1933.

ORDERS IN COUNCIL.

WHEREAS by section 33 of the Land Act 1933, it is made lawful for the Governor to direct that any Reserve shall vest in and be held by any person or persons to be named in the order in trust for the like or other public purposes to be specfiied in such order: And whereas it is deemed expedient as follows:

File No. 757/985.—That Reserve No. 39058 (Williams Location 15737) should vest in and be held by the Minister for Water Resources in trust for the purpose of "Water Supply".

File No. 1310/982.—That Reserve No. 39062 (Bunbury Lot 650) should vest in and be held by the Minister for Water Resources in trust for the purpose of "Sewage Pumping Station".

Now, therefore, His Excellency the Governor, by and with the advice and consent of the Executive Council, does hereby direct that the beforementioned Reserves shall vest in and be held by the beforementioned bodies in trust for the purposes aforesaid, subject nevertheless to the powers reserved to him by section 37 of the said Act.

R. G. COOPER,
Clerk of the Council.

LAND ACT 1933.

Reserves.

Department of Land and Surveys,
Perth, 3 May 1985.

HIS Excellency the Governor in Executive Council has been pleased to set apart as Reserves the land described below for the purposes therein set forth.

File No. 3706/14.

CANNING.—No. 38815 (Use and Requirements of The Metropolitan Region Planning Authority), Location No. 1745 and 1783 (3.975 9 hectares). (Diagram 86824, Plan Perth 2 000 17.12 (near McLean Road, Canning Vale).)

File No. 469/985.

SWAN.—No. 39023 (Public Recreation), Location No. 10655, formerly portion of Swan Location 33 being Lot 29 on Plan 8022 (1 181 square metres). (Plan Perth 2 000 18.24 (Wright Street, Cloverdale).)

File No. 2327/984.

BUNBURY.—No. 39036 (Drainage), Lot No. 668 and 669, formerly portions of each of Bunbury Town Lots 136, 137 and 170 comprised in diagram 12320 (258 square metres). (Plan Bunbury 2 000 01.32 (Symmons Street).)

File No. 3156/982.

CANNING.—No. 39040 (School Site), Location No. 3384, formerly portion of Canning Location 31 the subject of Diagram 37889 (3.990 8 hectares). (Diagram 86598, Plans Perth 2 000 22.04 and 22.05 (Schruth Street South in the Town of Armadale).)

File No. 1007/984.

SWAN.—No. 39045 (Parking), Location No. 10605 (1 561 square metres). (Diagram 86614, Plans Perth 2 000 11.21 and 11.22 (Hackett Drive in the City of Subiaco).)

File No. 532/985.

SWAN.—No. 39046 (Sewage Pumping Station and Recreation), Location No. 10575 (350 square metres). (Diagram 86621, Plan Perth 2 000 11.33 (Corner Jones and Hansworth Streets, Balcatta).)

File No. 2023/984.

OLDFIELD.—No. 39048 (Water Supply), Location No. 1446, formerly portion of Oldfield Location 133 and being Lot 1 on diagram 43064 (1 619 square metres). (Plan Ravensthorpe 2 000 29.40 (near Moir Road in the Shire of Ravensthorpe).)

File No. 784/985.

COCKBURN SOUND.—No. 39057 (Water Supply), Location No. 2798, formerly portion of Cockburn Sound Location 16 and being Lot 2 the subject of Diagram 51694 (2 275 square metres). (Plan Mandurah 2 000 7.40 (Pinjarra Road in the Shire of Mandurah).)

File No. 817/985.

COCKBURN SOUND.—No. 39059 (Club Premises), Location No. 2762 (598 square metres). (Diagram 86383, Plan Perth 2 000 11.12 (near Ralston Road in the Sity of Melville).)

File No. 3386/982.

COCKBURN SOUND.—No. 39063 (Public Utilities Services and Park), Location No. 2789 (784 square metres). (Diagram 86567, Plan Perth 2 000 11.11 (McBeth Way, North Lake).)

File No. 785/985.

COCKBURN SOUND.—No. 39064 (Water Supply), Location No. 2799, formerly portion of Cockburn Sound Location 626 and being Lot 300 on Plan 14578 (234 square metres). Plan Perth 2 000 12.08 (Mason Road in the City of Cockburn).)

File No. 3210/77.

LEEMAN.—No. 39065 (Housing (Shire of Coorow)), Lot No. 64 (1 012 square metres). (Original Plan 9726, Plan Leeman 2 000 39.06 (Nairn Street in the Shire of Coorow).)

File No. 897/985.

SWAN.—No. 39068 (Drainage), Location No. 10665, formerly portion of Swan Location 10272 and being Lot 187 on Plan 14458 (1 967 square metres). (Plan Perth 2 000 09.40 (Havering Court, Kingsley).)

File No. 776/985.

JANDAKOT AGRICULTURAL AREA.—No. 39069 (School Site), Lot No. 575, formerly portion of each of Jandakot Agricultural Area Lots 86 and 87 and being Lot 30 on Diagram 23884 (3.829 3 hectares). (Plans Perth 2 000 21.05 and 21.06 (Lake Road in the Town of Armadale).)

File No. 2930/983.

ASHBURTON.—No. 39070 (Recreation (Speedway)), Location No. 127 (8.796 2 hectares). (Diagram 86673, Plans Onslow 2 000 38.05 and 10 000 8.1).

File No. 3386/982.

COCKBURN SOUND.—No. 39074 (Public Utilities Services and Park), Location No. 2790 (2 000 square metres). (Diagram 86567, Plan Perth 2 000 11.11 (McBeth Way, North Lake).)

File No. 509/79.—

KALUWIRI.—No. 39075 (Trigononmetrical Station), Location No. 23 (4 047 square metres). (Diagram 86330, Plans Sandstone and Youanmi 1:25 000 (near Agnew-Sandstone Road in the Shire of Sandstone).)

File No. 752/985.

SWAN.—No. 39076 (Court House), Location No. 10666, formerly portion of Swan Location 7 and being part of Lot 140 on Plan 3052 (1 565 square metres). (Plan Perth 2 000 21.32 (Spring Park Road, Midland).)

File No. 3105/983.

MURRAY.—No. 39079 (Water Supply), Location No. 1780, formerly portion of Murray Location 1339 (1.494 8 hectares). (Diagram 86324, Plan Mandurah 2 000 01.33 (corner Old Coast Road and Duke Street, Wannanup).)

File No. 833/985.

SWAN.—No. 39080 (Recreation), Location No. 10667, formerly portion of Swan Location K and being Lot 343 on Plan 9203 (4.105 0 hectares). (Plans Perth 2 000 11.35, 11.36, 12.35 and 12.36 (Maitland Road, Balga).)

File No. 974/985.

MARGARET RIVER.—No. 39081 (Historical Settlement), Lot No. 132 (1.154 4 hectares). (Original Plan 16053, Plan Margaret River Townsite 09.03 (Town-View Terrace).)

File No. 1764/984.

BROOME.—No. 39082 (Drainage), Lot No. 1865 (7 330 square metres). (Diagram 86619, Plans Broome 2 000 29.14 and 29.15 (Matsumoto Street).)

File No. 1719/78.

VICTORIA.—No. 39083 (Trigonometrical Station), Location No. 11303, formerly portion of Mendel Estate Lot 5 (4 001 square metres). (Diagram 86232, Plan 156/80 (near Freeman Road in the Shire of Mullewa).)

File No. 2818/983.

GREGORY.—No. 39084 (Rubbish Disposal Site), Location No. 59 (6.780 7 hectares). (Diagram 86525, Plan Mount Bruce 1:250 000 (at Tom Price).)

B. L. O'HALLORAN,
Under Secretary for Lands.

LAND ACT 1933.

Reserves.

Department of Lands and Surveys,
Perth, 3 May 1985.

HIS Excellency the Governor in Executive Council has been pleased to set apart as Reserves the land described below for the purposes therein set forth.

File No. 660/985.

KALGOORLIE.—No. 39047 (Housing (Health Department of Western Australia)), Lot No. 4098 formerly Kalgoorlie Lots 3061 and 3065 inclusive (5 036 square metres). (Plan Kalgoorlie-Boulder 2 000 29.38 (Cheetam Street).)

WESTERN AUSTRALIA

TITLE NUMBER

Volume	Folio
LR3147	25

RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 10605 ON DEPOSITED PLAN 186614

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CITY OF SUBIACO

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. RESERVE 39045 FOR THE PURPOSE OF PARKING MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED.

Warning:
(1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP186614
PREVIOUS TITLE:	LR3147-25
PROPERTY STREET ADDRESS:	LOT 10605 HACKETT DR, CRAWLEY.
LOCAL GOVERNMENT AUTHORITY:	CITY OF PERTH
RESPONSIBLE AGENCY:	DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)

NOTE 1: K241939 CORRESPONDENCE FILE 01007-1984-01RO

LANDGATE COPY OF ORIGINAL NOT TO SCALE 12/05/2025 09:15 AM Request number: 68175813

Landgate
www.landgate.wa.gov.au

LR3143/31 (Subject to Dealing)

35 Stirling Highway, CRAWLEY 6009

Reserve Details Report - 17331

Reserve	17331	Legal Area (ha)	38.7763
Name	N/A	Status	CURRENT
Type	N/A	Current Purpose	MAIN BUILDINGS UNIVERSITY OF W A
File Number	03108-1914-04RO;03108-1914-05RO		
Notes	N/A		
Additional Reserve Information	N/A		

Class	Responsible Agency	Date of Last Change
C	THE UNIVERSITY OF WESTERN AUSTRALIA	05/04/2007

Management Order	Document Number
N/A	N/A

Land Use
UNIVERSITY

Local Government Authority
CITY OF PERTH

CLT Number	Parcel Identifier	Street Address, Suburb	File Number	PIN	Area (m²)
LR3112/303	Lot 13177 On Deposited Plan 189686	No Street Address Information Available	03108-1914-05RO	11052866	815
LR3143/31 (Subject to Dealing)	Lot 2885 On Deposited Plan 230371	35 Stirling Highway, CRAWLEY 6009	03108-1914-05RO	143268, 143290, 152702	392497.591
LR3143/32	Lot 11627 On Deposited Plan 218241	Lot 11627 Hackett Drive, CRAWLEY 6009	03108-1914-05RO	1069833	856

Previous Certificates of Title	Status
CL1455/1921	Cancelled
LR3000/117	Cancelled

Previous Certificates of Title	Status
LR3044/406	Cancelled
LR3096/493	Cancelled

Document Number/Gazette Page	Date	Type	Text
N/A	14/06/2000	Current Area	38.7763 (SEE PAGE 640 OF FILE 3108-1914-05)
H376256	29/02/2000	Historical Area	38.7717
H007800	21/01/1999	Historical Area	38.6902
1559	12/03/1993	Historical Area	38.6948
1559	12/03/1993	Location	SWAN LOC'S 2885, 11627 & 13177 (H376256)
1559	12/03/1993	Survey Number	CS:PLANS 2222,18241 & 89686
711	07/02/1992	Historical Area	38.6092 (REDUCED BY ROAD NO.16194)
880	30/03/1979	Historical Area	38.6138 BY RD.16194
313	02/02/1979	Area Reduced by	38.2931 BY RD.16138 ANNULED 23.2.1979/498
172	31/01/1958	Area Reduced by	98.0.15
1929	31/10/1919	Class	C
1929	31/10/1919	Original Gazettal and page	ORIGINAL GAZETTE
N/A	31/10/1919	Current Purpose	MAIN BUILDINGS UNIVERSITY OF W A
N/A	31/10/1919	Correspondence File Number	03108-1914-04RO
N/A	31/10/1919	Original Area	102.0.8
N/A	31/10/1919	Public Plan	BG34 (2) 11.22
N/A	31/10/1919	Street Name	HACKETT DRIVE
N/A	N/A	Metric Conversion	38.8751,P402
N/A	N/A	Area Increased by	ACT 76 - 1961
N/A	N/A	Area Increased by	101.0.38

date: May 12, 2025, 11:01:36 AM

Department of Lands and Surveys,
Perth, 31st October, 1919.

CEMETERIES ACT, 1897.

Gingin Cemetery—Reserve 7333—Appointment of Board.

Corres. 1331/96.

HIS Excellency the Governor in Executive Council has been pleased to appoint, under "The Cemeteries Act, 1897," and amending Acts, Mr. W. B. Gordon and the Rev. Henry Robbins as members of the Gingin Cemetery Board, *vice* Miss Rose Rudeforth and Mr. F. Horner, resigned.

RESERVES.

HIS Excellency the Governor in Executive Council has been pleased to set apart as Public Reserves the lands described in the Schedules below, for the purposes therein set forth.

2513/18.

KWOLYIN A.A.—No. 17324 (Agricultural Hall).—Lot No. 332. (1 acre 2 roods.) (Diagram 42283; Plan 4/80, B1.)

6344/19.

CANNING (Piesse's Brook).—No. 17328 (Timber, for the use and requirements of the Sailors and Soldiers' Settlement at Piesse's Brook).—Loc. No. 698. (About 25 acres.) (Plans 1C/40 and Piesse's Brook, Sheet 1.)

6049/19.

WARRAMBOO (Boogardie).—No. 17329 (Common).—Bounded by lines starting from a point on the West boundary of Reserve 12876 (Lennonville Common), situated North 97 chains 9 links from its South-West corner; thence West about 290 chains to a fence; thence about 195deg. along said fence about 192 chains to another fence, and along same in a general Easterly direction about 342 chains to the Western boundary of Reserve 11342 (Mt. Magnet Common); thence North about 194 chains to the starting point.

Excluding Boogardie Townsite, Reserves 9769, 10198, and Roads. (About 5,260 acres.) (Plan 186/80.)

(Pastoral Lease 593/96 is hereby reduced.)

3108/14.

SWAN (Crawley).—No. 17331 (Site for the main buildings of the University of Western Australia).—Loc. No. 2885. (102a. 0r. 8p.) (Plan Crawley.)

C. G. MORRIS,
Acting Under Secretary for Lands.

GOVERNMENT LAND SALES.

THE undermentioned allotments of land will be offered for sale, at public auction, on the dates and at the places specified below, at 11 o'clock a.m., except Narrogin 12 noon, Bridgetown 10.30 a.m., Bunbury and Beverley 3.30 p.m., and Albany 4 p.m.:—

KATANNING.

6th November, at the District Lands Office—

Katanning—Town, 856, 1a. 1r. 20.4p., £30; 857, 1a. 0r. 39.4p., £28; 858, 1a. 0r. 0.6p., £26; 859, 0a. 3r. 1.7p., £24; 869, 1a. 1r. 8.8p., £28.
Tambellup—Town, 276, 0a. 1r. 8/10p., £10.

NARROGIN.

6th November, at the District Lands Office—

Cuballing—*260, 261, 264, 265, 5a. each, £15 each.
Dudinin—Town, 45, 1r., £14.
Kondinin—Town, 30, 1r., £13.
Kulin—*108, 6a. 0r. 2p., £6.
Narrogin—Town, 942, 2r. 9p., £27.
Wickepin—Town, 87, 88, 1r. each, £20 each.

NORTHAM.

8th November, at the District Lands Office—

Ardath—Town, 21, 1r., £17; 23, 1r., £17.
Bruce Rock—Town, 117, 39.9p., £18; 184, 1r., £35; *168, 3a. 1r., £17; *170, 3a. 1r., £17.
Dalwallinu—Town, 125, 1r., £15.
Koorda—Town, 15, 1r., £20.
Merredin—Town, 199, 1r. 7.5p., £25; *332, 2a. 0r. 14p., £10.
Nungarin—*125, 5a., £15.
Quairading—*135, 2a. 2r., £15; 138, 4a. 0r. 17p., £20.
Trayning—Town, 80, 81, 1r. each, £10 each.

BRIDGETOWN.

12th November, at the District Lands Office—

Balingup—Town, 46, 1a. 0r. 32p., £12; 57, 2r. 20p., £10.
Bridgetown—*792, 4a. 0r. 4p., £15.

BUNBURY.

12th November, at the District Lands Office—

Collie—Town, 254, 1r. 4p., £15; 494, 1r., £20; 495, 1r., £20; 496, 1r., £15; 876, 1r., £12 10s.; *1191, 3a., £12 10s.; 1207, 3a., £10.
Cookernup—*129, 4a. 3r. 8p., £20; 133, 2a., £15; 134, 2a., £12.
Shotts—Town, 4, 13, 20, 1r. each, £10 each; 21, 1r. 1.7p., £12.

PERTH.

14th November, at Head Office—

Parkerville—*87, 4a. 0r. 15p., £12.
Watheroo—Town, 31, 1r., £12.

NORTHAM.

15th November, 1919, at the District Lands Office—

Trayning—Town, 9, 1r., £45; 10, 1r., £35; 33, 96, 1r. each, £20 each; 23, 30, and 39, 1r. each, £15 each; 63, 1r., £13.

BEVERLEY.

18th November, at the District Lands Office—

Corrigin—Town, 73, 1r., £21; 112, 113, 114, 1r. each, £13 each.

KALGOORLIE.

19th November, at the District Lands Office—

Boulder—Town, 2309, 1r., £15; 2618, 32p., £10.
Kalgoorlie—Town, 1122, 20p., £15; 1123, 1r. 8p., £32; 2286, 20p., £15; 2978, 1r., £20.

ALBANY.

21st November, at the District Lands Office—

Mt. Barker—Town, 219, 3r. 36p., £16.
Narrikup—*48, 4a. 3r. 24p., £10; 49, 4a. 3r. 24p., £12.
Redmond—Town, 1, 39.9p., £12.

The purchaser will have the option of taking, in lieu of a grant of the fee simple, a lease under the Regulations at the scheduled capital value nearest the upset price for the term of 99 years, and a premium equal to the amount of his bid in excess of the upset price.

*Suburban for cultivation, five years.

All improvements on the land offered for sale are the property of the Crown, and shall be paid for as the Minister may direct.

Plans and further particulars of these sales may be obtained at this office. Land sold to a depth of 200 feet below the natural surface, except in mining districts, where it is granted to a depth of 40 feet only.

C. G. MORRIS,
Acting Under Secretary for Lands.

CANCELLATION OF SPECIAL LEASE.

IT is hereby notified that the following Special Lease under Section 152 of "The Land Act, 1898," and its amendments, is cancelled, and the said land is again available for selection:—

All the land comprising the Monte Bello Islands as contained in Special Lease 1057/152; being Harry Hales' abandoned application, Correspondence 3699/18.

LAND OPEN FOR PASTORAL LEASING.

Late Reserve 3300, Coolgardie.

Corres. 146/96, Vol. 2.

IT is hereby notified, for general information, that the area comprised within late Reserve 3300 (about 240 acres, at Coolgardie) will be available under Part X. of "The Land Act, 1898," on Wednesday, 5th November, 1919; applications to be lodged at Kalgoorlie.

1455
1921

Lease
University Site
Crawley

Title is cancelled

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INDEX BRANCH

ORIGINAL

1455/1921

Land Off

Diagram 6782
" 6783
" 7545.
Map 3945.
Map 11511

WESTERN AUSTRALIA.

Lease No. 652) LEASE FOR 999 YEARS.
42. (

GEORGE THE FIFTH by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Emperor of India, Defender of the Faith.

TO ALL TO WHOM these presents shall come

GREETING:

KNOW YE that We of Our Special Grace certain knowledge and mere motion do by these presents grant and demise unto the UNIVERSITY OF WESTERN AUSTRALIA the natural surface and so much of the land as is below the natural surface to a depth of 200 feet of ALL THAT piece or parcel of land situate at Crawley near Perth in Our State of Western Australia known as Swan Location 2885 containing 102 acres 8 perches more or less as the same is delineated on the plan hereunto annexed and marked and distinguished in the maps and books of the Department of Lands and Surveys of Our State as Reserve No. 17331 TOGETHER WITH all easements and appurtenances to the said piece or parcel of land belonging or appertaining. TO HOLD the premises hereby demised or expressed so to be unto the University of Western Australia (hereinafter called the Lessee) from the first day of July One thousand nine hundred and nineteen for the term of nine hundred and ninety-nine years thence next ensuing. YIELDING AND PAYING therefor to Us Our Heirs and Successors one peppercorn of yearly rent on the twenty-fifth day of March in every year or so soon thereafter as the same shall be lawfully demanded. PROVIDED ALWAYS AND IT IS HEREBY DECLARED that this Lease is granted under and subject to the following conditions, namely :-

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(a) That the land hereby demised shall, except as hereinafter expressed, at all times during the said term be used by the lessee as a site for the main buildings of the said University and for no other purpose whatsoever without the License in writing of Us Our Heirs and Successors first obtained :

(b) That if the portion of the demised land containing 22 acres, 3 roods, 2 perches, delineated on the said Plan and therein hatched with the colour red, is at any time within ten years from the commencement of this Lease required by Us for the purposes of a Forest Products Laboratory, the lessee shall surrender to Us such portion of the demised land together with that portion of the demised land containing 3 roods 13 perches and delineated on the said Plan and hatched with the colour blue, for the purpose of an extension of Myers Street; and

(c) If at any time hereafter the intention to establish the University main buildings on the demised land, or some portion thereof, is abandoned, and such buildings are erected on some other site, this Lease may be determined and the lessee shall, if required so to do by the Governor of Our said State, surrender this Lease.

And if the lessee at any time during the said term shall make default in payment of the rent hereinbefore reserved if demanded or shall without such license as aforesaid use the demised land otherwise than for the purpose for which it has been demised, or shall otherwise fail in the observance of the conditions as aforesaid, it shall thereupon be lawful for Us Our Heirs and Successors into and upon the said land or any part thereof in the name of the whole to re-enter and the same to have again repossess and enjoy as if this demise had never been executed. PROVIDED FURTHER and that We do hereby save and reserve to Us Our Heirs and Successors all mines of

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gold, silver, copper, tin or other metals ore and mineral or other substances containing metals and all gems and precious stones and coal or mineral oil and all phosphatic substances in and under the said land with full liberty at all times to search and dig for and carry away the same and for that purpose enter upon the said land or any part thereof.

IT WITNESS whereof we have caused our trusty and well beloved Sir Francis Alexander Newdegate, Knight Commander of the Most Distinguished Order of St. Michael and St. George, Administrator of our State of Western Australia, to affix to these presents the Public Seal of Our said State.

SEALED at Perth aforesaid this THIRD day of MARCH, 1920.

F. A. Newdegate

ADMINISTRATOR.

Registered the 11th day of August 21. in conformity with Section 5 of the Act No. 24 of 1909, and numbered 1465. 1921A.

Registrar of Titles.

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LT 158

Sundry Document F135915

Corr. 3108 / 1914V4

NO DUPLICATE ISSUED

REGISTER VOL.	BOOK FOL.
3044	406

WESTERN AUSTRALIA

Crown Land Record

The undermentioned land shown on the sketch in the First Schedule hereto is land of the Crown subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

3044 VOL. 406 FOL.

Dated 16th March, 1993

CHIEF EXECUTIVE OFFICER

LAND REFERRED TO

Swan Location 2885 on Land Administration Plan Perth 2222

FIRST SCHEDULE

Title is cancelled

CANCELLED

Production of Graphic at Suitable Scale is Inappropriate.

Refer to Original Surveys Quoted in Land Description.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS RECORD OR ANY NOTIFICATION HEREON

05501/3/92-4-1/9499

FOR ENCUMBRANCES AND OTHER MATTERS AFFECTING THE LAND SEE SECOND SCHEDULE

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Title is cancelled

SECOND SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

PARTICULARS	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	CERT. OFFICER
2. Reserve No. 17331 for the purpose of "Site for the Main buildings of the University of Western Australia".	Sundry Doc.	F135915				
3. Reserve amended to include Location 11627 on Land Administration Plan 18241. In G.G. 12/3/1993.	Sundry Doc.	F135915		15.30		
1. Crown Lease 1455/1921	Sundry Doc.	F135915				
4. Cancelled included in CLR Vol 3000 Fol 117	Sundry Doc.	F135915	16.3.93	9.26		

CANCELLED

NOT TO BE REMOVED FROM OFFICE OF TITLES

LT 158

NO DUPLICATE ISSUED

REGISTER VOL.	BOOK FOL.
3000	117

Sundry Document F135915

Corr. 3108/1914v4

Vol.	Fol.
3044	406
3096	493

WESTERN AUSTRALIA

Crown Land Record

CANCELLED

The undermentioned land shown on the sketch in the First Schedule hereto is land of the Crown subject to the interests, easements, encumbrances and notices shown in the Second Schedule hereto.

3000 VOL. 117 FOL.

Dated 16th March, 1993

CHIEF EXECUTIVE OFFICER

LAND REFERRED TO

Swan Locations 2885 and 11627 on Land Administration Plans Perth 2222 & 18241

FIRST SCHEDULE

CANCELLED

Production of Graphic at Suitable Scale is Inappropriate.

Refer to Original Surveys Quoted in Land Description.

FOR ENCUMBRANCES AND OTHER MATTERS AFFECTING THE LAND SEE SECOND SCHEDULE

Title is cancelled

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS RECORD OR ANY NOTIFICATION HEREON

05901/3/92-4M-5/9499

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Title is cancelled

SECOND SCHEDULE NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

PARTICULARS	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	CERT. OFFICER
Crown Lease 1455/1921 (Swan Location 2885 only)	Sundry	F135915				
Reserve No. 17331 for the purpose of "Site for Main Buildings of the University of Western Australia." As to portion only. Heritage of Western Australia Act 1990.	Sundry	F135915				
	Memorial	G209365	24.6.96	12.31		
1. Reserve No. 17331 is amended to exclude the 46 square metre area marked as Road Widening and coloured Mid Brown on Land Administration Diagram 89686.	Amendment of Reserve	H007800	21.1.99	10.43		
3. Cancelled to Vol 3053 Fol 626.	Application	H007799	21.1.99	10.43		
2. Crown Lease No. 1455/1921 amended to include Swan Location 11627 on Land Administration Plan 18241.	Lease of Crown Land and Amalgamation Order (Leasehold)	H007798	21.1.99	10.43		

WESTERN AUSTRALIA

TITLE NUMBER
Volume Folio
LR3053 626

RECORD OF CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

THIS IS A MULTI-LOT TITLE

LAND DESCRIPTION:

LOT 2885 ON DEPOSITED PLAN 202222
LOT 11627 ON DEPOSITED PLAN 218241

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE WITHOUT MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: UNIVERSITY OF WA OF NEDLANDS

(LC I195321) REGISTERED 5/8/2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. F135915 RESERVE 17331 FOR THE PURPOSE OF MAIN BUILDINGS UNIVERSITY OF W A REGISTERED 16/3/1993.
2. I195321 LEASE. SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT IN THE LEASE. REGISTERED 5/8/2002.
   - G321566 CAVEAT AFFECTING LEASE I195321, CAVEAT BY UNIVERSITY CO-OPERATIVE BOOKSHOP LTD AS TO PORTION ONLY. AS TO LOT 2885 ON DP 202222 ONLY LODGED 6/11/1996.
   - H110419 MEMORIAL AFFECTING LEASE I195321 AS TO PORTION ONLY. AS TO LOT 2885 ON DP 202222 ONLY LODGED 17/5/1999.
3. G209365 MEMORIAL. HERITAGE OF WESTERN AUSTRALIA ACT 1990. AS TO PORTION ONLY. AS TO LOT 2885 ON DP 202222 ONLY REGISTERED 24/6/1996.
4. K146748 FOLIO CANCELLED. LOT 2885 ON DP202222 TO LR3143-31; LOT 11627 ON DP218241 TO LR3143-32. REGISTERED 4/4/2007.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

END OF PAGE 1 - CONTINUED OVER

Title is cancelled

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----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP202222, DP218241
PREVIOUS TITLE:	LR3000-117
PROPERTY STREET ADDRESS:	LOT 11627 HACKETT DR, CRAWLEY (11627/DP218241).
LOCAL GOVERNMENT AUTHORITY:	CITY OF PERTH
RESPONSIBLE AGENCY:	THE UNIVERSITY OF WESTERN AUSTRALIA

NOTE 1:	K146747	CORRESPONDENCE FILE 03108-1914-04RO
NOTE 2:	I195321	LEASE I195321 WAS ALLOCATED A DOCUMENT NUMBER TO ALLOW DIGITAL CAPTURE WITHOUT THE PRODUCTION OF THE DUPLICATE LEASE. CURRENT DUPLICATE LEASE IS STILL NUMBERED CL1455/1921.

Title is cancelled

WESTERN AUSTRALIA

TITLE NUMBER

Volume	Folio
LR3143	31

RECORD OF CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 2885 ON DEPOSITED PLAN 230371

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE WITHOUT MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: UNIVERSITY OF WA OF 35 STIRLING HIGHWAY CRAWLEY WA 6009
(LC I195321) REGISTERED 5/8/2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. F135915 RESERVE 17331 FOR THE PURPOSE OF MAIN BUILDINGS UNIVERSITY OF W A REGISTERED 16/3/1993.
2. G209365 MEMORIAL. HERITAGE OF WESTERN AUSTRALIA ACT 1990. AS TO PORTION ONLY. REGISTERED 24/6/1996.
3. I195321 LEASE. SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT IN THE LEASE. REGISTERED 5/8/2002.

G321566	CAVEAT AFFECTING LEASE I195321, CAVEAT BY UNIVERSITY CO-OPERATIVE BOOKSHOP LTD AS TO PORTION ONLY. LODGED 6/11/1996.
H110409	MEMORIAL AFFECTING LEASE I195321 HERITAGE OF WESTERN AUSTRALIA ACT1990. AS TO PORTION ONLY. REGISTERED 17/5/1999.
L729641	CAVEAT AFFECTING LEASE I195321, CAVEAT BY BANK OF WESTERN AUSTRALIA LTD AS TO PORTION ONLY LODGED 9/9/2011.
L780595	VARIATION OF LEASE I195321 REGISTERED 10/11/2011.
O243032	SUB-LEASE OF LEASE I195321 TO FATMA SEVIM, TAHIR KOCA, BOTH OF 5 BLAND PLACE BEECHBORO WA 6063, AS JOINT TENANTS EXPIRES: SEE SUB LEASE. AS TO PORTION ONLY. REGISTERED 23/9/2019.
O243032	CHANGE OF ADDRESS. REGISTERED 23/9/2019.
O243033	SUB-LEASE OF LEASE I195321 TO LY INHERITANCE PTY LTD OF UNIT 123 580 HAY STREET PERTH WA 6000 EXPIRES: SEE SUB LEASE. AS TO PORTION ONLY. REGISTERED 23/9/2019.

END OF PAGE 1 - CONTINUED OVER

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P685108 TRANSFER OF SUB LEASE O243033, LESSEE NOW TTTF HOLDINGS PTY LTD OF 25 ANTIGUA PLACE SOUTHERN RIVER WA 6110 AS TO PORTION ONLY REGISTERED 23/8/2023.

O243034 SUB-LEASE OF LEASE I195321 TO LY INHERITANCE PTY LTD OF UNIT 123 580 HAY STREET PERTH WA 6000 EXPIRES: SEE SUB LEASE. AS TO PORTION ONLY. REGISTERED 23/9/2019.

O243035 SUB-LEASE OF LEASE I195321 TO UTOPIA (AUST) PTY LTD OF 50 HULME COURT MYAREE WA 6154 EXPIRES: SEE SUB LEASE. AS TO PORTION ONLY. REGISTERED 23/9/2019.

O411144 SUB LEASE. SUB LESSEE STARCHART HOLDINGS PTY LTD OF 24 BUXTON ROAD WEMBLEY DOWNS WA 6019 AS TO PORTION ONLY REGISTERED 21/5/2020.

O461273 SUB LEASE. SUB LESSEE HIKARU HOLDINGS PTY LTD OF 6 KIRWAN WAY WINTHROP WA 6150 AS TO PORTION ONLY REGISTERED 31/7/2020.

O614781 SUB LEASE. SUB LESSEE TELSTRA CORPORATION LIMITED OF CARE OF JLL LEVEL 10 242 EXHIBITION STREET MELBOURNE VIC 3000 AS TO PORTION ONLY REGISTERED 15/1/2021.

P718405 TRANSFER OF SUB LEASE O614781, LESSEE NOW TELSTRA LIMITED OF CARE OF JLL LEVEL 10 242 EXHIBITION STREET MELBOURNE VIC 3000 REGISTERED 21/9/2023.

O614792 SUB LEASE. SUB LESSEE TELSTRA CORPORATION LIMITED OF CARE OF JLL LEVEL 10 242 EXHIBITION STREET MELBOURNE VIC 3000 AS TO PORTION ONLY REGISTERED 15/1/2021.

P718422 TRANSFER OF SUB LEASE O614792, LESSEE NOW TELSTRA LIMITED OF CARE OF JLL 242 EXHIBITION STREET MELBOURNE VIC 3000 REGISTERED 21/9/2023.

O680292 SUB LEASE. SUB LESSEE LEE TRADING WA PTY LTD OF CARE OF SIMPRO TAXATION SERVICES UNIT 14 910 ALBANY HIGHWAY EAST VICTORIA PARK WA 6101 AS TO PORTION ONLY REGISTERED 23/3/2021.

O860741 SUB LEASE. SUB LESSEE PACIFIC PAPER INDUSTRIES PTY LTD OF 251 SCARBOROUGH BEACH ROAD MOUNT HAWTHORN WA 6016 AS TO PORTION ONLY REGISTERED 3/9/2021.

O923233 SUB LEASE. SUB LESSEE SUBWAY REALTY PTY LTD OF 1 42 AMELIA STREET FORTITUDE VALLEY QLD 4006 AS TO PORTION ONLY REGISTERED 28/10/2021.

P212375 SUB LEASE. SUB LESSEE MINDEROO FOUNDATION LIMITED OF 171-173 MOUNTS BAY ROAD, PERTH WA 6000 AS TO PORTION ONLY REGISTERED 11/7/2022.

P495196 SUB LEASE. SUB LESSEE OPTUS MOBILE PTY LIMITED OF 1 LYONPARK ROAD MACQUARIE PARK NSW 2113 AS TO PORTION ONLY REGISTERED 27/3/2023.

P691351 SUB LEASE. SUB LESSEE TPG TELECOM LIMITED OF LEVEL 1 177 PACIFIC HIGHWAY NORTH SYDNEY NSW 2060 AS TO PORTION ONLY REGISTERED 29/8/2023.

4. N623685 EASEMENT TO ELECTRICITY NETWORKS CORPORATION FOR ELECTRICITY SUPPLY PURPOSES. SEE DEPOSITED PLAN 400895. REGISTERED 16/5/2017.

5. O045120 EASEMENT TO CONSERVATION AND LAND MANAGEMENT EXECUTIVE BODY FOR ACCESS PURPOSES. SEE DEPOSITED PLAN 413699. REGISTERED 5/12/2018.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP230371
PREVIOUS TITLE: LR3053-626

END OF PAGE 2 - CONTINUED OVER

Subject to dealing

REGISTER NUMBER: 2885/DP230371 VOLUME/FOLIO: LR3143-31 PAGE 3

PROPERTY STREET ADDRESS: 35 STIRLING HWY, CRAWLEY.
LOCAL GOVERNMENT AUTHORITY: CITY OF PERTH
RESPONSIBLE AGENCY: THE UNIVERSITY OF WESTERN AUSTRALIA

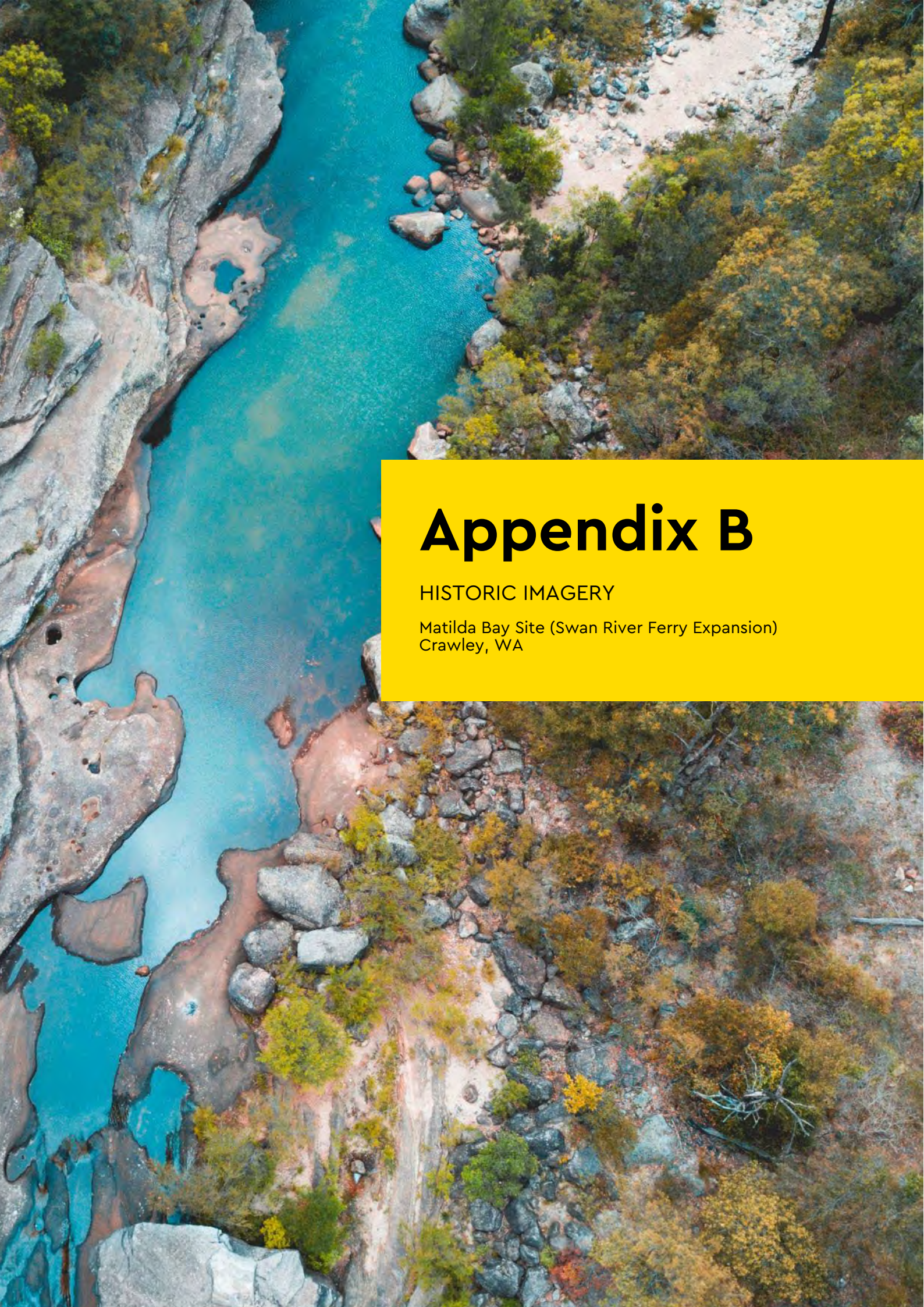
NOTE 1: L780595 CORRESPONDENCE FILE 03108-1914-05RO

Subject to dealing

Landgate
www.landgate.wa.gov.au

Appendix F

Historical aerial imagery



Appendix B

HISTORIC IMAGERY

Matilda Bay Site (Swan River Ferry Expansion)
Crawley, WA

MAP B1

Historic Aerial Photograph – 1942

Subject area

0 60 120 180 240 300m

Land Insight

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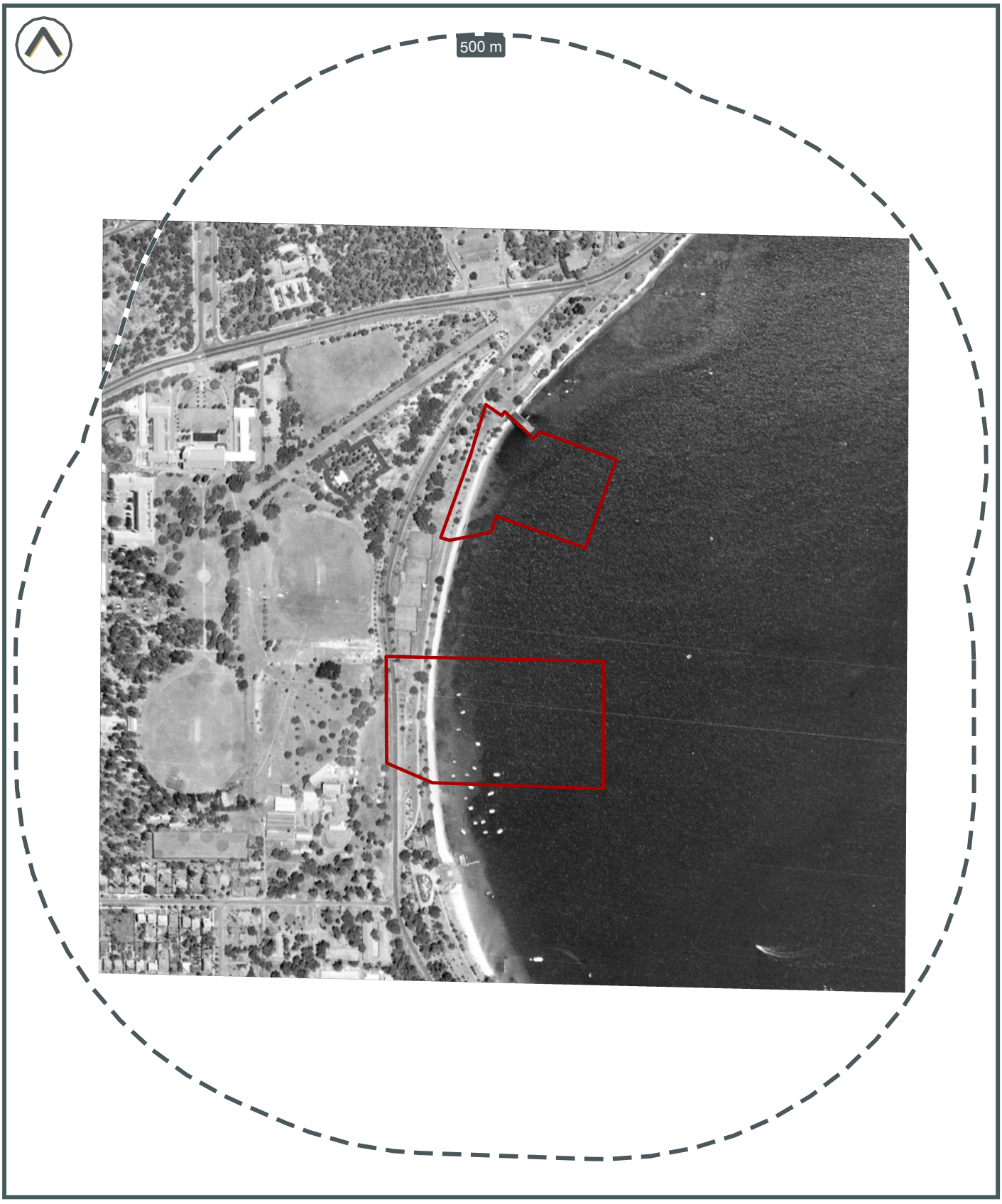
MAP B2

Historic Aerial Photograph – 1953



Subject area

0 60 120 180 240 300m

Land Insight

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MAP B3

Historic Aerial Photograph – 1965

Subject area

0 60 120 180 240 300m

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MAP B4

Historic Aerial Photograph – 1975

Subject area

0 60 120 180 240 300m

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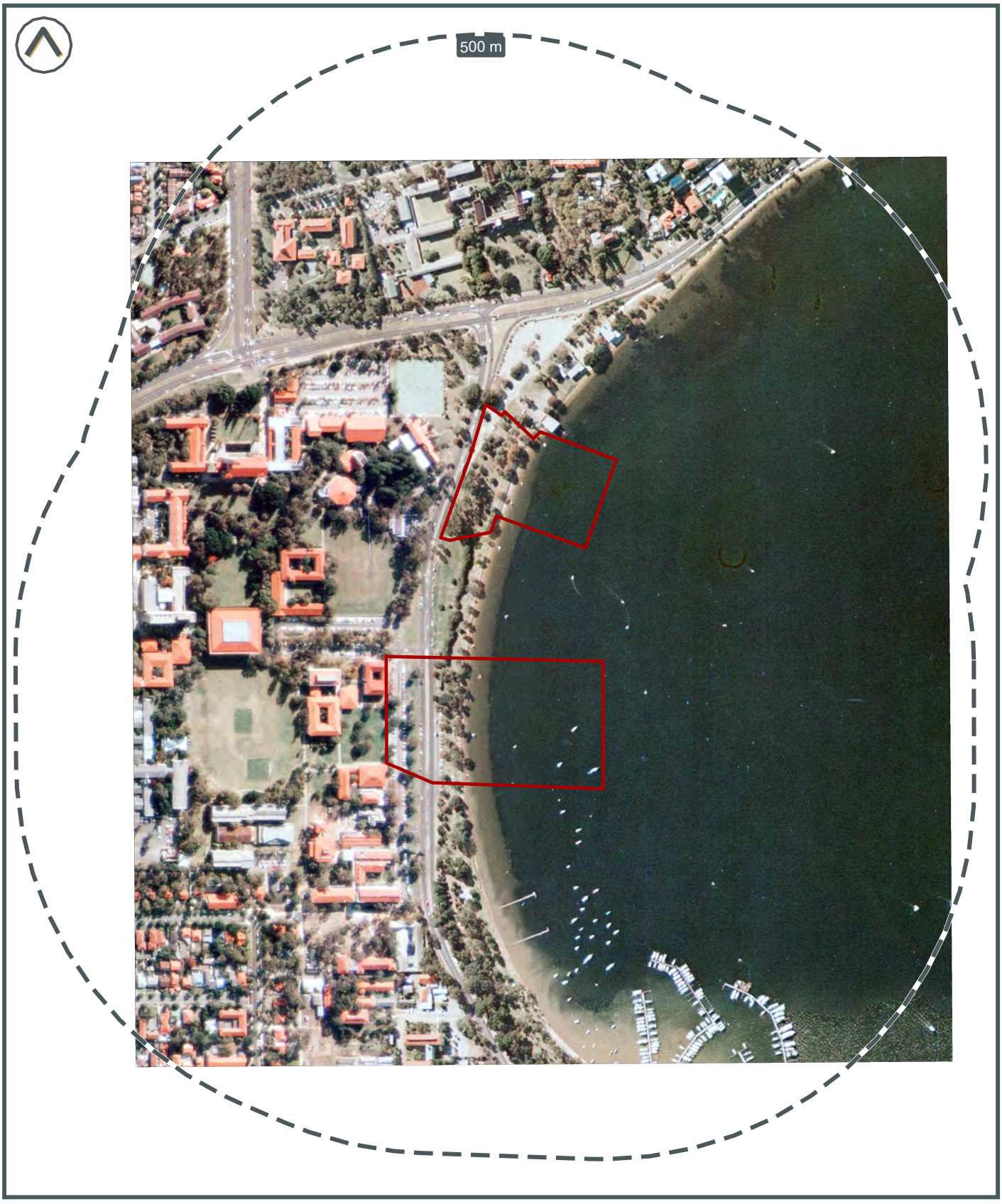
MAP B5

Historic Aerial Photograph – 1983



Subject area

0 60 120 180 240 300m

Land Insight

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MAP B6

Historic Aerial Photograph – 1995

Subject area

0 60 120 180 240 300m

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MAP B7

Historic Aerial Photograph – 2003

Subject area

0 60 120 180 240 300m

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MAP B8

Historic Aerial Photograph – 2008

Subject area

0 60 120 180 240 300m

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MAP B9

Historic Aerial Photograph – 2009

Subject area

0 60 120 180 240 300m

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MAP B10

Historic Aerial Photograph – 2011

Subject area

0 60 120 180 240 300m

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MAP B11

Historic Aerial Photograph – 2013

Subject area

0 60 120 180 240 300m

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IMAGERY INSIGHT

MAP B12

Historic Aerial Photograph – 2015

Subject area

0 60 120 180 240 300m

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IMAGERY INSIGHT

MAP B13

Historic Aerial Photograph – 2017

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Subject area

0 60 120 180 240 300m

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MAP B14

Historic Aerial Photograph – 2019

Subject area

0 60 120 180 240 300m

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MAP B15

Historic Aerial Photograph – 2021

Subject area

0 60 120 180 240 300m

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MAP B16

Historic Aerial Photograph – 2023

Subject area

0 60 120 180 240 300m

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MAP B17

Historic Aerial Photograph – 2025

Subject area

0 60 120 180 240 300m

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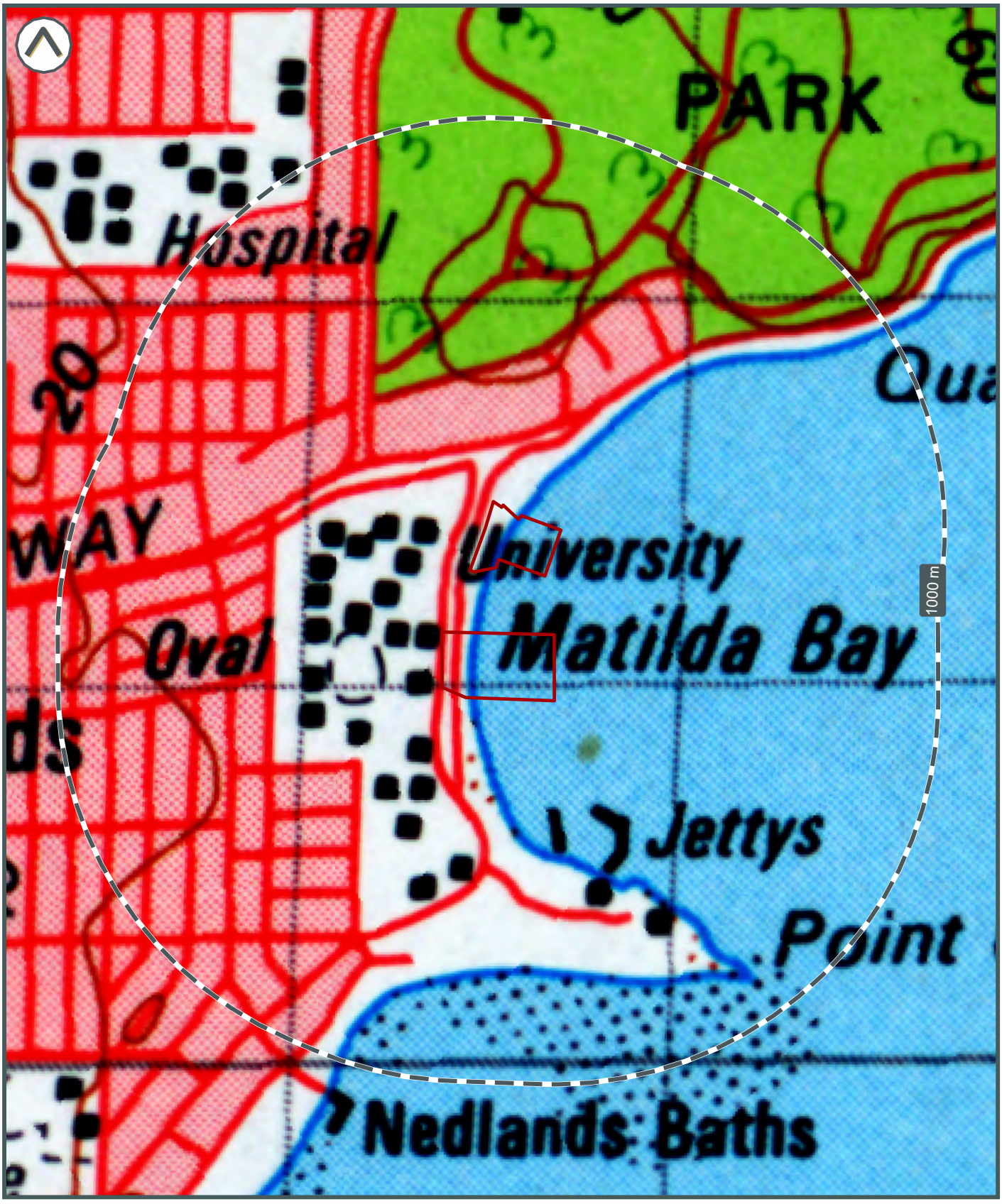
1:100,000 Topographic Map (Perth 2034, Edition 1, 1976)



Subject area

0 130 260 390 520 650m

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Insight

Appendix G

Basic summary of records

Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:01AM, 11/04/2025

Regulation, 2014). However, the site is not known to have been used for defence purposes, other than for accommodation.

Contamination assessments were carried out between 2011 and 2014, as part of redevelopment works (new building construction) at the site.

An underground storage tank (UST) was uncovered and removed during construction work. Validation (soil) samples collected from the walls and base of the excavation did not identify any contamination associated with fuel storage at the site.

A preliminary and detailed site investigation, dated July 2014 was carried out to assess the contamination status of soils within the redevelopment area. The investigation confirmed that the site was historically used for military accommodation; that buildings were demolished in the late 1960s, and that campus accommodation buildings were constructed over the historical military building footprints. In areas accessible for soil sampling, ACM were present in soils at quantities in excess of those specified in 'Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia' (Department of Health, May 2009).

As part of redevelopment works, some impacted soils were removed, and clean fill was imported. Validation works confirmed that the top 10 centimetres of soil was free from ACM. However, the investigation noted that ACM was likely to be present beneath the remainder of the site, including beneath existing buildings.

A second investigation was carried out in October 2014 across the remainder of the site, in areas that could not be investigated in July 2014. The investigation found ACM in several locations, including beneath garden beds and grassed courtyards, typically up to 50 centimetres below ground level. The Department of Health reviewed the results and calculations in that report and found that ACM were present in soils at quantities in excess of those specified in 'Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia' (Department of Health, May 2009).

Groundwater investigations have not been carried out at the site. However, based on the available information, the identified soil contamination (ACM only) is not considered to pose a risk to groundwater.

A tier 2 risk assessment has indicated that the contamination present on the site does not currently pose an unacceptable risk to human health, the environment or environmental values under the current land use of short-term residential accommodation (college campus), subject to the preparation of a site management plan for use by any workers (such as gardeners or construction workers) undertaking intrusive site works.

Remedial works have been carried out as part of redevelopment activities between 2011 and 2014, however, some impacted soil still remains on the site. In addition to impacts identified by investigations in July and October 2014, further ACM is likely to be present in soil beneath buildings constructed in the 1970s.

Based on the information provided by October 2014, the site is suitable for use as a residential accommodation facility (college campus), as long as a site management plan is prepared and used, as described in the Restrictions on Use.

As the site is contaminated and has been remediated such that it is suitable for the current land use,

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This Summary of Records has been prepared by Department of Water and Environmental Regulation (DWER) as a requirement of the Contaminated Sites Act 2003. DWER makes every effort to ensure the accuracy, currency and reliability of this information at the time it was prepared, however advises that due to the ability of contamination to potentially change in nature and extent over time, circumstances may have changed since the information was originally provided. Users must exercise their own skill and care when interpreting the information contained within this Summary of Records and, where applicable, obtain independent professional advice appropriate to their circumstances. In no event will DWER, its agents or employees be held responsible for any loss or damage arising from any use of or reliance on this information. Additionally, the Summary of Records must not be reproduced or supplied to third parties except in full and unabridged form.

Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:01AM, 11/04/2025

	subject to the creation and implementation of a Site Management Plan, the site is classified as 'remediated for restricted use'. A memorial stating the site's classification has been placed on the certificate of title, and will trigger the need for further investigations and risk assessment should the site be proposed for a more sensitive land use. DER, in consultation with the Department of Health, has classified this site based on the information available to DER at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to DER, and as such, the usefulness of this information may be limited. In accordance with Department of Health advice, if groundwater is being, or is proposed to be abstracted, DER recommends that analytical testing should be carried out to determine whether the groundwater is suitable for its intended use. **Action Required:** Due to the presence of asbestos in soil, a site-specific health and safety plan (Site Management Plan) is required to address the risks to the health of any workers undertaking intrusive works until further notice. The Site Management Plan should include a protocol for undertaking intrusive works, and appropriate asbestos awareness training for relevant persons, such as gardeners or contractors. When the existing buildings (those constructed in the 1970s) are proposed for demolition or significant renovation (e.g. requiring excavation), further investigation, risk assessment and/or remediation works may be required.
Certificate of Title Memorial	Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Environment Regulation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:07AM, 11/04/2025

Receipt No:	
ID No:	*38884*

Search Results

This response relates to a search request received for:

3732 Mounts Bay Rd
Crawley, WA, 6009

This parcel belongs to a site that contains 2 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

Address	3732 Mounts Bay Rd Crawley, WA, 6009
Lot on Plan Address	Lot 3732 On Plan 205170
Parcel Status	**Classification:** 26/05/2015 - *Remediated for restricted use* **Nature and Extent of Contamination:** This site was historically used for military accommodation, and asbestos-containing materials (ACM) were used for building construction. The military buildings were demolished in the late 1960s, and campus accommodation buildings were constructed over the historical building footprints. ACM are present in soil beneath this site to a depth of approximately 0.5 metres below ground level. At the time of classification, impacted soils were covered by existing buildings, roads or paths, or by grass and/or mulched garden areas. **Restrictions on Use:** Due to the presence of asbestos in soil, any intrusive works should be undertaken in accordance with a site-specific health and safety plan until further notice. **Reason for Classification:** This site was reported to the Department of Environment Regulation (DER) as per reporting obligations under section 11 of the 'Contaminated Sites Act 2003' (the Act), which commenced on 1 December 2006. The site has been classified under section 13 of the Act based on information submitted to DER by October 2014. The site was reported because asbestos-containing materials (ACM) were identified in surface soils at the site in December 2011. The ACM was present in an area where historical aerial photographs indicated former ACM buildings had been present. Demolition had taken place in the late 1960s or early 1970s, and demolition methods had not been documented. This site was historically used as a military barracks prior to the early 1970s. Defence works and defence establishments are land uses that have the potential to cause contamination, as specified in the guideline 'Assessment and Management of Contaminated Sites' (Department of Environment

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:07AM, 11/04/2025

Regulation, 2014). However, the site is not known to have been used for defence purposes, other than for accommodation.

Contamination assessments were carried out between 2011 and 2014, as part of redevelopment works (new building construction) at the site.

An underground storage tank (UST) was uncovered and removed during construction work. Validation (soil) samples collected from the walls and base of the excavation did not identify any contamination associated with fuel storage at the site.

A preliminary and detailed site investigation, dated July 2014 was carried out to assess the contamination status of soils within the redevelopment area. The investigation confirmed that the site was historically used for military accommodation; that buildings were demolished in the late 1960s, and that campus accommodation buildings were constructed over the historical military building footprints. In areas accessible for soil sampling, ACM were present in soils at quantities in excess of those specified in 'Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia' (Department of Health, May 2009).

As part of redevelopment works, some impacted soils were removed, and clean fill was imported. Validation works confirmed that the top 10 centimetres of soil was free from ACM. However, the investigation noted that ACM was likely to be present beneath the remainder of the site, including beneath existing buildings.

A second investigation was carried out in October 2014 across the remainder of the site, in areas that could not be investigated in July 2014. The investigation found ACM in several locations, including beneath garden beds and grassed courtyards, typically up to 50 centimetres below ground level. The Department of Health reviewed the results and calculations in that report and found that ACM were present in soils at quantities in excess of those specified in 'Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia' (Department of Health, May 2009).

Groundwater investigations have not been carried out at the site. However, based on the available information, the identified soil contamination (ACM only) is not considered to pose a risk to groundwater.

A tier 2 risk assessment has indicated that the contamination present on the site does not currently pose an unacceptable risk to human health, the environment or environmental values under the current land use of short-term residential accommodation (college campus), subject to the preparation of a site management plan for use by any workers (such as gardeners or construction workers) undertaking intrusive site works.

Remedial works have been carried out as part of redevelopment activities between 2011 and 2014, however, some impacted soil still remains on the site. In addition to impacts identified by investigations in July and October 2014, further ACM is likely to be present in soil beneath buildings constructed in the 1970s.

Based on the information provided by October 2014, the site is suitable for use as a residential accommodation facility (college campus), as long as a site management plan is prepared and used, as described in the Restrictions on Use.

As the site is contaminated and has been remediated such that it is suitable for the current land use,

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:07AM, 11/04/2025

	subject to the creation and implementation of a Site Management Plan, the site is classified as 'remediated for restricted use'. A memorial stating the site's classification has been placed on the certificate of title, and will trigger the need for further investigations and risk assessment should the site be proposed for a more sensitive land use. DER, in consultation with the Department of Health, has classified this site based on the information available to DER at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to DER, and as such, the usefulness of this information may be limited. In accordance with Department of Health advice, if groundwater is being, or is proposed to be abstracted, DER recommends that analytical testing should be carried out to determine whether the groundwater is suitable for its intended use. **Action Required:** Due to the presence of asbestos in soil, a site-specific health and safety plan (Site Management Plan) is required to address the risks to the health of any workers undertaking intrusive works until further notice. The Site Management Plan should include a protocol for undertaking intrusive works, and appropriate asbestos awareness training for relevant persons, such as gardeners or contractors. When the existing buildings (those constructed in the 1970s) are proposed for demolition or significant renovation (e.g. requiring excavation), further investigation, risk assessment and/or remediation works may be required.
Certificate of Title Memorial	Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Environment Regulation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:51AM, 11/04/2025

Receipt No:	
ID No:	*72563*

Search Results

This response relates to a search request received for:

7 Broadway
Nedlands, WA, 6009

This parcel belongs to a site that contains 1 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

Address	7 Broadway Nedlands, WA, 6009
Lot on Plan Address	Lot 888 On Plan 76389
Parcel Status	**Classification:** 13/03/2023 - *Remediated for restricted use* **Nature and Extent of Contamination:** Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the site as a plume which extends off-site to the south. Hydrocarbon-impacted soil remains in-situ beneath the location of former underground fuel storage tanks in the southern portion of the site at a depth of approximately 10 metres below ground surface. **Restrictions on Use:** The land use of the site is restricted to commercial/industrial use with minimum soil access, which excludes sensitive uses with accessible soil such as childcare centres, kindergartens, pre-schools, and primary schools. The site should not be developed for a more sensitive use such as residential use, childcare centres, or recreational open space, without further contamination assessment and/or remediation. Due to the presence of hydrocarbon-impacted groundwater contamination beneath the site, the site management plan titled 'Site Management Plan Ampol Nedlands Service Station (55130) 7 Broadway, Nedlands, Western Australia' (AECOM, 19 October 2022) (the SMP) is required to be implemented. The SMP includes ongoing groundwater monitoring to monitor the nature and extent of the hydrocarbon-impacted groundwater plume and requirements for a site-specific health and safety plan for any intrusive works. Other than for analytical testing or remediation, groundwater abstraction is not permitted at this site because of the nature and extent of groundwater contamination. **Reason for Classification:** This site was reported to the Department of Water and Environmental Regulation (the department) prior to the commencement of the 'Contaminated Sites Act 2003' (the Act). The site was first classified under section 13 of the Act based on information submitted to the

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:51AM, 11/04/2025

department by December 2017. The site has been classified again under section 13 of the Act to reflect additional technical information submitted to the department by December 2022.

The site has been used as a service station since approximately 1985. This is a land use that has the potential to cause contamination, as specified in the guideline 'Assessment and management of contaminated sites' (Department of Water and Environmental Regulation [DWER], 2021).

This site was reported because a contamination assessment in 2000 identified hydrocarbons (such as from petrol or diesel) in groundwater in the vicinity of underground fuel storage tanks (USTs) in the north-east and south-east portions of the site.

The department understands that all fuel-related infrastructure, including all USTs, was removed and the service station rebuilt between 2000 and 2001. The department holds no information relating to any remediation of contamination that may have occurred during this process.

Soil investigations between 2000 and 2016 have been limited to the collection of a small number of samples during the installation of groundwater monitoring wells. Hydrocarbons were identified in soils on-site in 2014 at a depth associated with the groundwater smear-zone. The concentrations did not exceed Health Screening Levels for vapour intrusion on commercial and industrial land, as published in the National Environment Protection (Assessment of Site Contamination) Measure 1999' (the NEPM).

Soil vapour investigations were undertaken in 2020. Low detections of hydrocarbon compounds were identified at the southern boundary. The concentrations did not exceed Health Screening Levels for vapour intrusion on commercial and industrial land, as published in the NEPM.

A series of groundwater monitoring events were undertaken between 2000 and 2021. The most recent groundwater monitoring identified hydrocarbons present in groundwater beneath the southern portion of the site at concentrations exceeding assessment levels for non-potable use of groundwater, as published in the 'Assessment and management of contaminated sites' (DWER, 2021) but below Health Screening Levels for vapour intrusion on commercial and industrial land, as published in the NEPM.

Off-site groundwater monitoring events were undertaken between 2016 and 2021. No evidence of groundwater contamination was identified in these locations, however, the department notes that off-site groundwater investigations have been limited by the presence of buildings. Based on the concentration of hydrocarbons in groundwater at the site's southern boundary, and the prevailing south-easterly groundwater flow direction, it is likely that a plume of hydrocarbon-impacted groundwater extends off-site to the south.

The primary source of the groundwater contamination was identified as the former USTs, bowsers, and remote fill points. Investigations have shown there are no ongoing primary sources of contamination on site. The hydrocarbon plume appears to be localised to the southern portion of the site's boundary, and investigations have shown the plume to be stable.

A risk assessment has indicated that the contamination present on the site does not currently pose an unacceptable risk to human health, the environment, or environmental values under the current land use of service station provided groundwater is not abstracted for use. However, the contamination may present an unacceptable risk to human health under a more sensitive land use.

A site management plan titled 'Site Management Plan Ampol Nedlands Service Station (55130) 7

Disclaimer
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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:51AM, 11/04/2025

Broadway, Nedlands, Western Australia' (AECOM, October 2022) [SMP] requires management measures for any activity (such as excavation) and an ongoing groundwater monitoring plan, with groundwater monitoring events to be undertaken bi-annually over three years.

The investigations and risk assessment works were the subject of an independent review by an accredited contaminated sites auditor. The auditor's review is documented in a mandatory auditor's report (MAR) dated 13 December 2022. The department accepts the auditor recommendation that the site is suitable for continued commercial/industrial land use subject to implementation of the SMP and restriction on abstraction of groundwater.

The site is contaminated and has been remediated such that it is suitable for the current land use, subject to implementation of the SMP and restrictions on groundwater abstraction. Therefore, the site is classified as 'remediated for restricted use'.

A memorial stating the site's classification will be placed on the certificate of title and will trigger the need for further investigations and risk assessment should the site be proposed for a more sensitive land use.

The department, in consultation with the Department of Health, has classified this site based on the information available to the department at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to the department, and as such, the usefulness of this information may be limited.

Other Relevant Information:

Additional information included herein is relevant to the contamination status of the site and includes the department's expectations for action that should be taken to address potential or actual contamination described in the Reasons for Classification.

Based on the available information, contamination present beneath this site has also been identified beyond the site boundary beneath the adjacent land, consistent with the definition of a "source site" specified in Part 1, Section 3 of the Act. In accordance with Regulation 31(1)(b) of the 'Contaminated Sites Regulations 2006', reports or information submitted to the department that are relevant to the investigation, assessment, monitoring or remediation of a source site are required to be accompanied by a mandatory auditor's report (MAR) prepared by an accredited contaminated sites auditor.

Where the land is part of a transaction - sale, mortgagee or lease agreement, the landowners MUST PROVIDE WRITTEN DISCLOSURE (on the prescribed Form 6) of the site's status to any potential owner, mortgagee (e.g financial institutions) or lessee at least 14 days before the completion of the transaction. A copy of the disclosure must also be forwarded to the department.

Action Required:

Ongoing groundwater monitoring is required in accordance with the recommendations in the SMP to monitor the nature and extent of the hydrocarbon-impacted groundwater plume. A site investigation report documenting the results of these investigations should be submitted to the auditor annually.

Investigations are to be carried out in accordance with the department's contaminated sites guidelines and the NEPM.

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:18:51AM, 11/04/2025

Certificate of Title Memorial	Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Water and Environmental Regulation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:10AM, 11/04/2025

Receipt No:	
ID No:	*72564*

Search Results

This response relates to a search request received for:

11 Broadway
Nedlands, WA, 6009

This parcel belongs to a site that contains 1 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

Address	11 Broadway Nedlands, WA, 6009
Lot on Plan Address	Lot 3 On Diagram 27540
Parcel Status	**Classification:** 13/03/2023 - *Remediated for restricted use* **Nature and Extent of Contamination:** Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the adjacent former service station to the north and extends to the south beneath this site. **Restrictions on Use:** The land use of the site is restricted to commercial/industrial use with minimum soil access, which excludes sensitive uses with accessible soil such as childcare centres, kindergartens, pre-schools, and primary schools. The site should not be developed for a more sensitive use such as residential use, childcare centres, or recreational open space, without further contamination assessment and/or remediation. Due to the presence of soil and groundwater contamination beneath the site, the ongoing Site Management Plan (dated 19 October 2022) must be implemented This includes ongoing groundwater monitoring to monitor the nature and extent of the hydrocarbon-impacted groundwater plume Other than for analytical testing or remediation, groundwater abstraction is not permitted at this site because of the nature and extent of groundwater contamination. **Reason for Classification:** This site was reported to the Department of Water and Environmental Regulation (the department) as per reporting obligations under section 11 of the 'Contaminated Sites Act 2003' (the Act), which commenced on 1 December 2006. Land to the north of this site at 7 Broadway, Nedlands (the service station site) has been used as a service station since approximately 1985. This is a landuse which has the potential to cause contamination, as specified in the guideline 'Assessment and management of contaminated sites' (Department of Water and Environmental Regulation [DWER], 2021).

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:10AM, 11/04/2025

This site was reported because a contamination assessment found hydrocarbons (such as from petrol or diesel) present in groundwater at the adjacent service station site extended beyond the property boundary to beneath this site.

The department understands that all fuel-related infrastructure, including all USTs, was removed from the service station site and the service station rebuilt between 2000 and 2001.

A series of groundwater monitoring events were undertaken at the service station between 2000 and 2021. The most recent groundwater monitoring identified hydrocarbons present in groundwater beneath the southern portion of the service station at concentrations exceeding assessment levels for non-potable use of groundwater, as published in the 'Assessment and management of contaminated sites' (DWER, 2021) but below Health Screening Levels for vapour intrusion on commercial and industrial land, as published in the 'National Environment Protection (Assessment of Site Contamination) Measure 1999' (the NEPM).

Off-site groundwater monitoring events were undertaken between 2016 and 2021. No evidence of groundwater contamination was identified in these locations, however, the department notes that off-site groundwater investigations have been limited by the presence of buildings. Based on the concentration of hydrocarbons in groundwater at the service station site's southern boundary, and the prevailing south-easterly groundwater flow direction, it is reasonably inferred using groundwater modelling that hydrocarbon-impacted groundwater is present beneath the eastern portion of this site.

The primary source of the groundwater contamination was identified as the former USTs, bowsers, and remote fill points at the service station. Investigations have shown there are no ongoing primary sources of contamination at the service station. The hydrocarbon plume appears to be localised to the southern portion of the service station's boundary, and investigations have shown the plume to be stable.

A risk assessment has indicated that the contamination present on the site does not currently pose an unacceptable risk to human health, the environment, or environmental values under the current land use as a restaurant provided groundwater is not abstracted for use. However, the contamination may present an unacceptable risk to human health under a more sensitive land use.

A site management plan titled 'Site Management Plan Ampol Nedlands Service Station (55130) 7 Broadway, Nedlands, Western Australia' (AECOM, October 2022) [SMP] was developed for the service station site which includes an ongoing groundwater monitoring plan, with groundwater monitoring events to be undertaken bi-annually over three years.

An accredited contaminated sites auditor (the auditor) reviewed the investigations and risk assessment for the site. The auditor's findings are documented in a mandatory auditor's report dated 13 December 2022. The department accepts the auditor's recommendation that the site is suitable for continued commercial/industrial use subject to implementation of the SMP and restriction to abstraction of groundwater.

The site is contaminated and has been remediated such that it is suitable for the current commercial/industrial land use, subject to restrictions on groundwater abstraction and the implementation of the SMP. Therefore, the site is classified as 'remediated for restricted use'.

A memorial stating the site's classification will be placed on the certificate of title and will trigger the need for further investigations and risk assessment should the site be proposed for a more sensitive

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:10AM, 11/04/2025

	land use. The department, in consultation with the Department of Health, has classified this site based on the information available to the department at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to the department, and as such, the usefulness of this information may be limited. **Other Relevant Information:** Additional information included herein is relevant to the contamination status of the site and includes the department's expectations for action that should be taken to address potential or actual contamination described in the Reasons for Classification. Based on the available information, contamination present on this site has originated from the adjacent land at Lot 888, which has been classified separately under the Act. Therefore, this site is consistent with the definition of an "affected site" as specified in Part 1, Section 3 of the Act. Under the Act, the person responsible for the remediation of a source site is also responsible for remediation of any related affected sites. The responsibility for the implementation of the SMP lies with the owner of the service station at Lot 888 Broadway, Nedlands. Where the land is part of a transaction - sale, mortgagee or lease agreement, the landowners MUST PROVIDE WRITTEN DISCLOSURE (on the prescribed Form 6) of the site's status to any potential owner, mortgagee (e.g. financial institutions) or lessee at least 14 days before the completion of the transaction. A copy of the disclosure must also be forwarded to the department. **Action Required:** Please refer to the Restrictions on Use applicable to the site.
Certificate of Title Memorial	Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Water and Environmental Regulation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:27AM, 11/04/2025

Receipt No:	
ID No:	*72566*

Search Results

This response relates to a search request received for:

15 Broadway
Nedlands, WA, 6009

This parcel belongs to a site that contains 2 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

Address	15 Broadway Nedlands, WA, 6009
Lot on Plan Address	Lot 2 On Diagram 27540
Parcel Status	**Classification:** 08/03/2023 - *Remediated for restricted use* **Nature and Extent of Contamination:** Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the adjacent former service station to the north and extends to the south beneath this site. **Restrictions on Use:** The land use of the site is restricted to commercial/industrial use with minimum soil access, which excludes sensitive uses with accessible soil such as childcare centres, kindergartens, pre-schools, and primary schools. The site should not be developed for a more sensitive use such as residential use, childcare centres, or recreational open space, without further contamination assessment and/or remediation. Due to the presence of soil and groundwater contamination beneath the site, the ongoing Site Management Plan (dated 19 October 2022) must be implemented. This includes ongoing groundwater monitoring to monitor the nature and extent of the hydrocarbon-impacted groundwater plume. Other than for analytical testing or remediation, groundwater abstraction is not permitted at this site because of the nature and extent of groundwater contamination. **Reason for Classification:** This site was reported to the Department of Water and Environmental Regulation (the department) as per reporting obligations under section 11 of the 'Contaminated Sites Act 2003' (the Act), which commenced on 1 December 2006. Land to the north of this site at 7 Broadway, Nedlands (the service station site) has been used as a service station since approximately 1985. This is a land use which has the potential to cause contamination, as specified in the guideline 'Assessment and management of contaminated sites' (Department of Water and Environmental Regulation [DWER], 2021).

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:27AM, 11/04/2025

This site was reported because a contamination assessment found hydrocarbons (such as from petrol or diesel) present in groundwater at the service station to the north extended beyond the property boundary to beneath this site.

The department understands that all fuel-related infrastructure, including all USTs, was removed from the service station site and the service station rebuilt between 2000 and 2001.

A series of groundwater monitoring events were undertaken at the service station between 2000 and 2021. The most recent groundwater monitoring identified hydrocarbons present in groundwater beneath the southern portion of the service station at concentrations exceeding assessment levels for non-potable use of groundwater, as published in the 'Assessment and management of contaminated sites' (DWER, 2021) but below Health Screening Levels for vapour intrusion on commercial and industrial land, as published in the 'National Environment Protection (Assessment of Site Contamination) Measure 1999' (the NEPM).

Off-site groundwater monitoring events were undertaken between 2016 and 2021. No evidence of groundwater contamination was identified in these locations, however, the department notes that off-site groundwater investigations have been limited by the presence of buildings. Based on the concentration of hydrocarbons in groundwater at the service station site's southern boundary, and the prevailing south-easterly groundwater flow direction, it is reasonably inferred using groundwater modelling that hydrocarbon-impacted groundwater is present beneath the eastern portion of this site.

The primary source of the groundwater contamination was identified as the former USTs, bowsers, and remote fill points at the service station. Investigations have shown there are no ongoing primary sources of contamination at the service station. The hydrocarbon plume appears to be localised to the southern portion of the service station's boundary, and investigations have shown the plume to be stable.

A risk assessment has indicated that the contamination present on the site does not currently pose an unacceptable risk to human health, the environment, or environmental values under the current land use of restaurant and laneway provided groundwater is not abstracted for use. However, the contamination may present an unacceptable risk to human health under a more sensitive land use.

A site management plan titled 'Site Management Plan Ampol Nedlands Service Station (55130) 7 Broadway, Nedlands, Western Australia' (AECOM, October 2022) [SMP] was developed for the service station site which includes an ongoing groundwater monitoring plan, with groundwater monitoring events to be undertaken bi-annually over three years.

An accredited contaminated sites auditor (the auditor) reviewed the investigations and risk assessment for the site. The auditor's findings are documented in a mandatory auditor's report dated 13 December 2022. The department accepts the auditor's recommendation that the site is suitable for continued commercial/industrial use subject to implementation of the SMP and restriction to abstraction of groundwater.

The site is contaminated and has been remediated such that it is suitable for the current commercial/industrial land use, subject to restrictions on groundwater abstraction and the implementation of the SMP. Therefore, the site is classified as 'remediated for restricted use'.

A memorial stating the site's classification will be placed on the certificate of title and will trigger the

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 11:19:27AM, 11/04/2025

	need for further investigations and risk assessment should the site be proposed for a more sensitive land use. The department, in consultation with the Department of Health, has classified this site based on the information available to the department at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to the department, and as such, the usefulness of this information may be limited. **Other Relevant Information:** Additional information included herein is relevant to the contamination status of the site and includes the department's expectations for action that should be taken to address potential or actual contamination described in the Reasons for Classification. Based on the available information, contamination present on this site has originated from land to the north at Lot 888, which has been classified separately under the Act. Therefore, this site is consistent with the definition of an "affected site" as specified in Part 1, Section 3 of the Act. Under the Act, the person responsible for the remediation of a source site is also responsible for remediation of any related affected sites. The responsibility for the implementation of the SMP lies with the owner of the service station at Lot 888 Broadway, Nedlands. Where the land is part of a transaction - sale, mortgagee or lease agreement, the landowners MUST PROVIDE WRITTEN DISCLOSURE (on the prescribed Form 6) of the site's status to any potential owner, mortgagee (e.g. financial institutions) or lessee at least 14 days before the completion of the transaction. A copy of the disclosure must also be forwarded to the department. **Action Required:** Please refer to the Restrictions on Use applicable to the site.
Certificate of Title Memorial	Under the Contaminated Sites Act 2003, this site has been classified as "remediated for restricted use". For further information on the contamination status of this site, please contact Contaminated Sites at the Department of Water and Environmental Regulation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

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Appendix H

FOI information

Government of Western Australia
Department of Water and Environmental Regulation

REQUEST FOR A SUMMARY OF RECORDS IN RESPECT OF LAND

Form 2 [r. 8]

***Contaminated Sites Act 2003*, section 21**

PERSON REQUESTING SUMMARY OF RECORDS:

Family name:	Lao	**Given name(s):**	Solene Thida
Company (if applicable):	GHD	**ABN (if applicable):**	
Postal address:	Level 10/999 Hay St	**Suburb/Town:**	Perth
Post code:	6000	**Phone:**	0476781885
Email:	louise.cockerton@ghd.com	**Fax:**	

☑ I agree to the Department of Water and Environmental Regulation communicating with me by electronic means.

Your reference: 12658388

DESCRIPTION OF LAND TO WHICH REQUEST RELATES / SITE DETAILS *(if necessary, include a map to identify site):*

Lot No. P032409 145 *and/or* **Street No.** 4 **Street name:** Australia II Drive

Certificate of Title (e.g. Volume and Folio and/or Lot on Plan / Diagram No.): LR3128/401

Suburb / Town: Crawley

Post code: 6009

Type of facility currently occupying the site: Parkland

Local government: Perth

Other relevant information to identify the site: Land ID number: 3226322

Name by which site is known locally:

TYPE OF SUMMARY OF RECORDS REQUESTED:

☑ *Basic summary of records ($44 each) (r.9)*

Includes:

- the classification and reasons for the classification
- any restrictions on the use of a site that comprises all, or part of the land
- details of notices given under the Act Part 4.

☐ *Detailed summary of records ($440 each) (r.10)*

Includes:

- basic summary of records
- copies of any current certificate of contamination audit
- relevant report titles, authors and dates.

PLEASE COMPLETE PAYMENT DETAILS OVERLEAF

Government of Western Australia
Department of Water and Environmental Regulation

REQUEST FOR A SUMMARY OF RECORDS IN RESPECT OF LAND

Form 2 [r. 8]

***Contaminated Sites Act 2003*, section 21**

PAYMENT FORM / TAX INVOICE **ABN: 28 420 443 065**

PAYMENT METHOD	
☑	Credit card payment (Online) - access DWER payment portal and select Contaminated Sites **(Biller Code 1568872)** Please include: • Full name • Company name • Your reference Before submitting the application, record the receipt number and payment date below.
Bpoint receipt No: 5284 2495 400	**Date paid:** 16-Apr-2025
☐	EFT/bank transfer – BSB: 066040 Account No: 018300113 Name of Bank: Commonwealth Bank of Australia. Please include in the description: • F2 and your reference number Please Send Remittance Advice to: Accounts.Receivable@dwer.wa.gov.au
☐	Cheque/Money order • Make payable to Department of Water and Environmental Regulation.

Email the completed form to: info@dwer.wa.gov.au

If paying by Cheque/Money Order, please mail the completed form to:

Manager, Contaminated Sites Branch
Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

IMPORTANT: If lodging your Form 2 by mail -- please do not send cash through the post.

Land owned by the Commonwealth of Australia

State environmental laws, including the *Contaminated Sites Act 2003*, generally do not apply to Commonwealth Government land such as Perth Airport or Department of Defence sites. Please consider land ownership before submitting a search request, as refunds are generally not given.

If in doubt, please contact the Contaminated Sites hotline on 1300 762 982 before submitting your request.

Department of
Water and Environmental Regulation

OFFICE USE ONLY

Parcel Number .....

TRIM File Ref .....

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

Your ref: 12658388
Our ref: DMO 2771
Enquiries: Registrar
Phone: 1300 762 982
Fax: (08) 6364 7001
Email: info@dwer.wa.gov.au

Att: Solene Lao
GHD
999 Hay St
Perth WA 6000

Dear Sir/Madam

BASIC SUMMARY OF RECORDS REQUEST

Thank you for your Basic Summary of Records (BSR) request for the site consisting of the following parcel(s) of land:

- Approximate Spatial Representation of portion of LOT 14555 ON DEPOSITED PLAN 32409 as shown on certificate of title LR3128/401, Crawley WA 6009

which Department of Water and Environmental Regulation (the department) received on 28/04/2025

A search of the department's records of known and suspected contaminated sites was undertaken and the results of the search are attached for your information.

A guide on how to interpret the BSR response is also attached for your information.

General information on a Summary of Records and associated request forms is available from the department's website on https://www.wa.gov.au/organisation/department-of-water-and-environmental-regulation/contaminated-sites or by contacting the Contaminated Sites Information Line on 1300 762 982.

Yours sincerely

Penny Woodberry, Manager

CONTAMINATED SITES REGULATION
Delegated Officer under section 91
of the *Contaminated Sites Act 2003*

06/05/2025

Enc. Basic Summary of Records
Fact Sheet 7: How to interpret information on contaminated sites
Receipt Number RR044903

CSSID = 2771

Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 12:27:10PM, 06/05/2025

Receipt No: RR044903

ID No: 33772

Search Results

This response relates to a search request received for:

4 Australia Ii Dr
Crawley, WA, 6009
Approximate Spatial Representation of portion of Lot 14555 on Plan 32409 with certificate of title reference LR3128/401
This parcel belongs to a site that contains 3 parcel(s).

According to Department of Water and Environmental Regulation records, this land has been reported as a known or suspected contaminated site.

Address

4 Australia Ii Dr
Crawley, WA, 6009
Approximate Spatial Representation of portion of Lot 14555 on Plan 32409 with certificate of title

Parcel Status

Classification: 20/07/2010 - *Possibly contaminated - investigation required*

Nature and Extent of Contamination:

Antifouling agents have been identified in river sediments in the vicinity of the boat ramp, jetties and moorings.

Restrictions on Use:

Please refer to Reasons for Classification for further information on the contamination present at the site.

Reason for Classification:

This site was originally reported to the Department of Environment and Conservation (DEC) in May 2007 and prior to the commencement of the 'Contaminated Sites Act 2003', and was reported again in June 2007, as per reporting obligations under section 11 of the Act. The site classification is based on technical information submitted DEC by April 2008.

The site was reported because a series of contamination assessments, undertaken between 2006 and 2007, found river sediments to be impacted by antifouling agents (such as those found in marine vessel antifouling paints) from slipway maintenance of boats and vessels.

The site has been interpreted to comprise the Royal Perth Yacht Club, Lot 7568 on plan 169295, a digitised portion of Lot 14555 on plan 32409 a digitised portion of Lot 300 on plan 47450 within the Swan River in proximity to vessel moorings.

This site operates as a yacht club and includes boat pens for vessels, jetties, a slipway, cleaning berths, a club house, workshop and fuel storage and re-fuelling facilities. This is a land use that is similar to that described as 'boat building and maintenance', specified in the guideline 'Potentially Contaminating Activities, Industries and Landuses' (Department of Environment, 2004).

The Department of Water published report 'Antifouling biocides in Perth coastal waters: a snapshot at select areas of vessel activity' (May, 2009), details investigations conducted in March 2006, at a

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Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 12:27:11PM, 06/05/2025

number of areas subject to water craft/vessel activity and includes sediment sampling within the Swan River and in proximity to the Royal Perth Yacht Club.

Sediment laboratory analysis for metals, including organotins, detected concentrations of tributyltin (TBT), and copper in exceedance of 'Interim Sediment Quality Guidelines - High (ISQG-High)' trigger values as published within 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010) and 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality' (ANZECC and ARMCANZ, 2000).

Dithiocarbamates and Chlorothalonil (fungicides used in the manufacture of antifouling marine paints), Irgarol 1051 and Diuron (herbicide) were detected in sediments in proximity to the Royal Perth Yacht Club.

Further and complimentary investigations conducted in May 2007, detected tributyltin in sediments in exceedance of 'Interim Sediment Quality Guidelines - Low (ISQG-Low) and High (ISQG-High)' trigger values as published within 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010). Exceedences of ISQG-High trigger values indicates that further investigations are required to assess the bioavailability of these contaminants and determine whether they pose a risk to human health, the environment or any environmental value.

Samples of surface water taken from adjacent to the Yacht Club as part of Department of Water investigations, detected tributyltin, copper and zinc at concentrations exceeding Aquatic Ecosystems Marine Water Guidelines, as published in 'Assessment Levels for Soil, Sediment and Water' (DEC, 2010). Concentrations of copper and zinc also exceeded Aquatic Ecosystems Fresh Water Guidelines. Elevated concentrations of the herbicide diuron were also detected.

Soil and groundwater investigations have not been conducted at the site and the quality of soils and groundwater at the site is not known.

Mussels sampled from the site and subject to tissue analysis identified elevated concentrations of butyltins (tributyltin, dibutyltin and monobutyltin), zinc and copper.

The investigations carried out were limited and do not meet the standard required as outlined in the DEC "Contaminated Sites Management Series" of guidelines and further works are required to characterise impacts at the and risk to ecology.

There are grounds to indicate possible contamination of the site, and since a suitable investigation of the contamination status of the site and a risk assessment to determine the risk to human health, the environment, or any environmental value has not been carried out, further works are required to determine the contamination status of the site. The site is therefore classified as 'possibly contaminated - investigation required'.

Further investigations are required to determine the sources of contamination, the lateral and vertical extent of impacts and the risk impacts may pose to the river environment and ecology. Investigations should also further consider the heterogeneous characteristics of sediments (particle size and presence of paint flecks/chips) and include assessment of factors controlling the bioavailability of contaminants, as published in 'Assessment Levels for Soil, Sediment and Water' (DEC, 2010) and 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality' (ANZECC and ARMCANZ, 2000).

DEC, in consultation with the Department of Health, has classified this site based on the information

Disclaimer
This Summary of Records has been prepared by Department of Water and Environmental Regulation (DWER) as a requirement of the Contaminated Sites Act 2003. DWER makes every effort to ensure the accuracy, currency and reliability of this information at the time it was prepared, however advises that due to the ability of contamination to potentially change in nature and extent over time, circumstances may have changed since the information was originally provided. Users must exercise their own skill and care when interpreting the information contained within this Summary of Records and, where applicable, obtain independent professional advice appropriate to their circumstances. In no event will DWER, its agents or employees be held responsible for any loss or damage arising from any use of or reliance on this information. Additionally, the Summary of Records must not be reproduced or supplied to third parties except in full and unabridged form.

Contaminated Sites Act 2003
Basic Summary of Records Search Response

Report generated at 12:27:11PM, 06/05/2025

	available to DEC at the time of classification. It is acknowledged that the contamination status of the site may have changed since the information was collated and/or submitted to DEC, and as such, the usefulness of this information may be limited. In accordance with Department of Health advice, if groundwater is being, or is proposed to be abstracted, DEC recommends that analytical testing should be carried out to determine whether the groundwater is suitable for its intended use.
Certificate of Title Memorial	Under the Contaminated sites Act 2003, this site has been classified as "Possibly contaminated - investigation required". For further information on the contamination status of this site, please contact the Contaminated Sites section of the Department of Environment & Conservation.
Current Regulatory Notice Issued	**Type of Regulatory Notice:** *Nil* **Date Issued:** *Nil*
General	No other information relating to this parcel.

Disclaimer
This Summary of Records has been prepared by Department of Water and Environmental Regulation (DWER) as a requirement of the Contaminated Sites Act 2003. DWER makes every effort to ensure the accuracy, currency and reliability of this information at the time it was prepared, however advises that due to the ability of contamination to potentially change in nature and extent over time, circumstances may have changed since the information was originally provided. Users must exercise their own skill and care when interpreting the information contained within this Summary of Records and, where applicable, obtain independent professional advice appropriate to their circumstances. In no event will DWER, its agents or employees be held responsible for any loss or damage arising from any use of or reliance on this information. Additionally, the Summary of Records must not be reproduced or supplied to third parties except in full and unabridged form.

DMO 2771_Crawley WA 6009

06/05/2025

1:4,401

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

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Council House, 27 St Georges Terrace, Perth
GPO Box C120, Perth WA 6839
(08) 9461 3333
foi@cityofperth.wa.gov.au
www.perth.wa.gov.au
ABN 83 780 118 628

CITY OF PERTH

Application for access to documents

Freedom of Information Act 1992, Section 12

Instructions: Please print clearly in the spaces provided. Applications may be lodged:

By Post:	**By Email:**	**In Person:**
Information Access Coordinator City of Perth GPO Box C120, WA 6839	foi@cityofperth.wa.gov.au	Councill House 27 St Georges Terrace PERTH WA 6000

1. Applicant Details

First Name

Zak

Surname

Langtry

Organisation (if applicable)

GHD

Address

Level 10, 999 Hay Street

State Perth Postcode 6000

Contact Number

+61 8 6222 8130

Email

zak.langtry@ghd.com

2. Information Type

Please indicate whether the documents you are requesting access to are:

- ○ Non-Personal (incurs $30 application fee, and additional charges may apply)
- ○ Personal documents (incurs no fee and will contain information pertinent to applicant only)

Note: Personal information is information about you, e.g. family details, details of employment, material in personal records, medical reports etc.

3. Details of Request

Please provide as much information as possible to help us identify the documents you are requesting, i.e. location / address, subject matter, date(s). Although not mandatory, it is helpful if you are able to give some background as to the reason/s you are seeking access to documents.

The City may contact you to clarify the information you have requested and if necessary, negotiate a reduction of the scope of your application if a significant number of documents are involved.

GHD would like to understand if the City has received any complaints regarding odour, water quality, flooding, or other environmental incidents (such as fuel spills within the Matilda Bay from commercial or recreational watercraft) at the Matilda Bay Reserve i in the last 12 months. Additionally, would like to review any flood management plans for Matilda Bay Reserve if available.

Please indicate a date range for the documents.

Start Date (DDMMYYYY) 1/1/24 / / End Date (DDMMYYYY) 5/15/25/ /

4. Form of Access

Please indicate form of access required.

- ○ Electronic (the City's preferred form of access, where applicable)
- ○ Inspection (in person at Council House)
- ○ Hardcopy (additional fees may be applicable)

5. Third Party Consultation

Please indicate consent to consult with third parties and/or to delete third party information where applicable.

- ☐ I consent to all 'personal information' of **third parties** being deleted from the requested document/s (names, contact details, signatures and identifying information of third parties that are not state or local government officers).
- ☐ I consent to all 'personal information' of **other government agency officers** being deleted from the requested document(s) *(names, position titles, contact details and signatures of other state and local government officers).*
- ☐ I consent to all 'prescribed information' (names and position titles) and 'personal information' (contact details and signatures of the **City of Perth officers (former and current)** being deleted from the requested document/s.

Note: Not ticking the above boxes does not automatically result in receiving the personal and/or prescribed information for third parties and government officers. Deleting such information may reduce the time required to consult with the relevant parties and subsequently expedite the processing of the application.

- ☐ I consent to my name being disclosed to any third party that is consulted (as required by sections 32 and 33 of the Freedom of Information Act 1992) and who requests to know the identity of the applicant.

Note: Providing this information to third parties who ask for it enables the consultation process to be finalised more efficiently and quickly as third parties are generally more willing to consent to the release of personal and/or business information if the applicant is known.

6. Payment Details

Please indicate your preferred payment method:

- ○ Cash (payable at the Customer Service Centre, Ground Floor, Council House)
- ○ Cheque (made payable to the City of Perth)
- ○ Money Order (made payable to the City of Perth)
- ◉ Credit Card (Visa, Mastercard or Amex)
- ○ Bank Transfer (details sent upon request)

Credit Card payment:
For security reasons, the City of Perth cannot accept written credit card details. **The City of Perth will contact you to obtain your credit card details.**

7. Authorisation

- ☐ By ticking this box, I confirm I understand that before I obtain access to documents, I may be required to pay processing charges in respect of this application and that I will be supplied with an estimate of charges, if appropriate.
- ☐ By ticking this box, I confirm I understand that this form authorises the City of Perth to reproduce any documents associated with this application for internal purposes only.
- ☐ By ticking this box, I confirm the information I have provided in this form is accurate. (A signature is not required on forms lodged electronically and submissions will be treated in accordance with the Electronic Transactions Act 2011 (WA).)

Response Time: Initial response within 7 days of receipt of application.

Signature _____
(for hardcopy submission only)

Date (DDMMYYYY) 5/16/25/ /

8. Fees and Charges

A scale of fees and charges is set under the Freedom of Information Regulations 1993. All charges are discretionary except for the application lodgement fee of $30.00 for each application.

Note: FOI applications for non-personal information are not valid until the application lodgement fee is paid.

Before obtaining access to documents, you may be required to pay processing charges. The following charges may also apply for processing FOI applications:

- 20 cents per copy for photocopying
- A fee for any actual costs to the agency for postage, special arrangements for access such as reproductions
- A charge for staff time at $30.00 per hour

You will be supplied with a statement of processing charges if appropriate. Discounts may be available in certain cases. If you consider yourself entitled to a reduction, please advise when lodging your application and the City will contact you to obtain relevant documentation.

No fees are applicable for Internal or External Reviews.

9. Further Information

For advice and further information regarding FOI and the types of documents held by the City, refer to the City's website www.perth.wa.gov.au and Information Statement.

For general information and advice regarding FOI, the Office of the Information Commissioner can be contacted on (08) 6551 7888, at www.oic.wa.gov.au

This form is available in alternative languages and formats on request

Council House
27 St Georges Terrace
Perth WA 6000
T 08 9461 3333
E info@cityofperth.wa.gov.au

Mr Zak Langtry
GHD
Level 10, 999 Hay Street
PERTH WA 6000

zak.langtry@ghd.com

Dear Mr Langtry

FREEDOM OF INFORMATION NOTICE OF DECISION – FOI P1260679

I refer to your application made under the *Freedom of Information Act 1992* (the Act) seeking access to the following information:

> *"* GHD would like to understand if the City has received any complaints regarding odour, water quality, flooding, or other environmental incidents (such as fuel spills within the Matilda Bay from commercial or recreational watercraft) at the Matilda Bay Reserve i in the last 12 months. Additionally, would like to review any flood management plans for Matilda Bay Reserve if available..
> ***Date Range:*** 01 January 2024 to 15 May 2025"

We are unable to meet your request, as the records requested are not in the possession of City of Perth (the City).

Section 26 of the Act allows an agency to refuse access to a document if the document cannot be found or does not exist. A copy of section 26 of the Act is provided at Appendix 1.

Following a detailed search of the City's records , no documents relating a to the scope of your request were located, in accordance with sections 26(1)(a) and 26(b)(ii) of the Act.

It is determined that all reasonable steps have been taken to find the documents.

If you are dissatisfied with the City's access decision, you may request an Internal Review. Internal Review requests must be:

- Lodged within 30 days of receiving this Notice,
- In writing, addressed to the FOI Decision Maker, City of Perth, PO Box C120, PERTH WA 6839;
- Provide particulars of the Decision to be reviewed; and
- Give a valid street address in Australia.

Yours sincerely

MO HENDERSON
FOI DECISION MAKER

19 June 2025

Council House
27 St Georges Terrace
Perth WA 6000
T 08 9461 3333
E info@cityofperth.wa.gov.au

Appendix 1

Extract from the *Freedom of Information Act 1992*

Section 26

(1) The agency may advise the applicant, by written notice, that it is not possible to give access to a document if –

(a) all reasonable steps have been taken to find the document; and

(b) the agency is satisfied that the document –

i. is in the agency's possession but cannot be found; or
ii. does not exist.

(2) For the purpose of this Act the sending of a notice under subsection (1) in relation to a document is to be regarded as a decision to refuse access to the document, and on a review or appeal under Part 4 the agency may be required to conduct further searches for the document.

Appendix 2

Document Schedule – FOI Application P1260659

Document No.	Document Type	Document Name	Type of Access
Doc01	Footage	CCTV footage pertaining to fall near Elizabeth Quay on 15 December 2024	Refused – S26

Appendix I

Calibration certificates

PID Calibration Certificate 14.0 1442025P

Instrument Tiger XT
Serial No. XT-100654

Air-Met Scientific Pty Ltd
1800 000 744

Item	Test	Pass	Comments			
Battery	Charge Condition	✓				
	Fuses	✓				
	Capacity	✓				
	Recharge OK?	✓				
Switch/keypad	Operation	✓				
Display	Intensity	✓				
	Operation (segments)	✓				
Grill Filter	Condition	✓				
	Seal	✓				
Pump	Operation	✓				
	Filter	✓				
	Flow	✓				
	Valves, Diaphragm	✓				
PCB	Condition	✓				
Connectors	Condition	✓				
Sensor	PID	✓	10.6 eV			
Alarms	Beeper	✓	**Low**	**High**	**TWA**	**STEL**
	Settings	✓	50ppm	100ppm	100ppm	250ppm
Software	Version	✓				
Data logger	Operation	✓				
Download	Operation	✓				
Other tests:						

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Calibration gas and concentration	Certified	Gas bottle No		Instrument Reading
PID Lamp		92ppm Isobutylene	NIST	WA427		92ppm Isobutylene

Calibrated by: Reuben Priest

Calibration date: **14/04/2025**

Next calibration due: **11/10/2025**

Appendix J

Bore logs

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay1_HA01

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay1
Date Drilled 02/05/2025 - 02/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hang augur
Total Depth (m) 1.00
Diameter (mm) 50

Latitude 31°58'36.00"S
Longtitude 115°49'18.94"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
0	HA					GRASS				0
0.1		0	GHD_MatBay1_HA01_0.1			SAND medium, well graded, subangular to subrounded, brown, some coal, trace rootlets (FILL)	SM	L		-0.1
0.2		0	GHD_MatBay1_HA01_0.2			SAND medium, well graded, subangular to subrounded, pale brown, trace coal, trace cobbles (FILL)	SM	L		-0.2
0.8		0	GHD_MatBay1_HA01_0.8			SAND medium, poorly graded, subrounded, grey, trace coal (NATURAL - SOIL)	M	MD	Charcoal fraction partially backfill, partially in the top 0.05 of horizon	-0.8
1						Termination Depth at: 1.00 m. Target depth achieved.				-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay1_HA02

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay1
Date Drilled 02/05/2025 - 02/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hand augur
Total Depth (m) 1.00
Diameter (mm) 50

Latitude 31°58'37.84"S
Longtitude 115°49'17.96"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
0	HA					GRASS				0
0.1		0	GHD_MatBay1_HA02_0.1			SAND medium, well graded, subangular to subrounded, brown- red, trace rootlets (FILL)	SM	MD		-0.1
0.3		0	GHD_MatBay1_HA02_0.3			SAND medium, well graded, subangular to subrounded, pale brown, subangular, medium to coarse, gap graded gravel, trace cobbles, trace coal (FILL)	SM	L		-0.3
0.7		0	GHD_MatBay1_HA02_0.7			SAND fine to medium, poorly graded, subangular to subrounded, yellow mottled brown (NATURAL - SOIL)	SM	L		-0.7
1						Termination Depth at: 1.00 m. Target depth achieved.				-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay1_HA03

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay1
Date Drilled 02/05/2025 - 02/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hand augur
Total Depth (m) 1.00
Diameter (mm) 50

Latitude 31°58'40.23"S
Longtitude 115°49'15.40"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
0	HA					GRASS				0
0.05										-0.05
0.1		0	GHD_MatBay1_HA03_0.1			SAND medium, well graded, subangular to subrounded, brown, trace roots (FILL)	SM	L		-0.1
0.15										-0.15
0.2										-0.2
0.25										-0.25
0.3		0	GHD_MatBay1_HA03_0.3			SAND medium to coarse, well graded, subangular to subrounded, yellow (FILL)	M	L		-0.3
0.35										-0.35
0.4										-0.4
0.45										-0.45
0.5										-0.5
0.55										-0.55
0.6		0	GHD_MatBay1_HA03_0.6			SAND fine to medium, well graded, subangular to subrounded, yellow, subangular, coarse, well graded gravel, some coarse gravel (possible NATURAL - SOIL)	M	MD	Red orange gravel inclusions	-0.6
0.65										-0.65
0.7										-0.7
0.75										-0.75
0.8										-0.8
0.85										-0.85
0.9										-0.9
0.95										-0.95
1						Termination Depth at: 1.00 m. Target depth achieved.				-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay2_HA01

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay2
Date Drilled 02/05/2025 - 02/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hand augur
Total Depth (m) 0.75
Diameter (mm) 50

Latitude 31°58'45.75"S
Longtitude 115°49'15.42"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
0	HA					GRASS				0
0.05										-0.05
0.1		0	GHD_MatBay2_HA01_0.1			SAND medium, poorly graded, subangular to subrounded, brown, trace rootlets (FILL)	SM	L		-0.1
0.15										-0.15
0.2										-0.2
0.25										-0.25
0.3		0	GHD_MatBay2_HA01_0.3							-0.3
0.35										-0.35
0.4										-0.4
0.45										-0.45
0.5		0	GHD_MatBay2_HA01_0.5							-0.5
0.55										-0.55
0.6										-0.6
0.65										-0.65
0.7										-0.7
0.75						Termination Depth at: 0.75 m. Refusal on unindentified surface.				-0.75

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay2_HA02

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay2
Date Drilled 02/05/2025 - 02/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hand augur
Total Depth (m) 0.65
Diameter (mm) 50

Latitude 31°58'50.74"S
Longtitude 115°49'15.30"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
0	HA					GRASS				0
0.05										-0.05
0.1		0	GHD_MatBay2_HA01_0.1			SAND medium, subangular to subrounded, dark brown, angular, coarse, gap graded gravel, some rubble (FILL)	SM	L		-0.1
0.15										-0.15
0.2										-0.2
0.25										-0.25
0.3		0	GHD_MatBay2_HA01_0.3							-0.3
0.35										-0.35
0.4										-0.4
0.45										-0.45
0.5		0	GHD_MatBay2_HA01_0.5							-0.5
0.55										-0.55
0.6										-0.6
0.65						Termination Depth at: 0.65 m. Refusal on unindentified surface.				-0.65

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

BOREHOLE LOG

ENVIRONMENTAL-SOIL BORE

SOIL BORE GHD_MatBay2_HA03

Client Perth Transport Authority
Project PTA Ferry Expansion PSI
Project No. 12658388
Site PTA Swan River
Monitoring Zone GHD_MatBay2
Date Drilled 02/05/2025 - 2/05/2025

Drill Co. -
Driller -
Rig Type -
Drill Method Hand augur
Total Depth (m) 1.00
Diameter (mm) 50

Latitude 31°58'47.73"S
Longtitude 115°49'13.11"E
Grid Ref -
Elevation -
Logged By ZL & CA
Checked By ZL

Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials,separate phase liquids, imported fill, ash.	Elevation (m)
	HA					MULCH				
0.1		0	GHD_MatBay_HA03_0.1			SAND fine to medium, well graded, subangular to subrounded, brown, some organics (Reworked NATURAL)	D	L		-0.1
0.2		0	GHD_MatBay_HA03_0.2			SAND fine to medium, well graded, subangular to subrounded, pale brown, trace organics (Reworked NATURAL)	D	L		-0.2
0.5		0	GHD_MatBay_HA03_0.5			SAND fine to medium, well graded, subangular to subrounded, yellow, silt (Reworked NATURAL)	D	L		-0.5
1						Termination Depth at: 1.00 m. Target depth achieved.				-1

Notes

This log is not intended for geotechnical purposes.

Drilling Abbreviations	Moisture Abbreviations	Consistency Abbreviations	
AH-Air Hammer, AR-Air Rotary, BE-Bucket Excavation, CC-Concrete Coring, DC-Diamond Core, FH-Foam Hammer, HA-Hand Auger, HE-Hand Excavation (shovel), HFA-Hollow Flight Auger, NDD-Non Destructive Drilling, PT-Pushtube, SD-Sonic Drilling, SFA-Solid Flight Auger, SS-Split Spoon, WB-Wash Bore, WS-Window Sampler	D-Dry, SM-Slightly Moist, M-Moist, VM-Very Moist, W-Wet, S-Saturated	**Granular Soils** VL-Very Loose, L-Loose, MD-Medium Dense, D-Dense,VD - Very Dense	**Cohesive Soils** VS-Very Soft, S-Soft, F-Firm, ST-Stiff, VST-Very Stiff, H-Hard

Appendix K

Laboratory reports

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* 12658388	**PO Number** (to be invoiced) 12658388
Laboratory Quote No.	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com	**Email Address (Results)** GHD.LabReports@ghd.com

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: Metals (8), TRH, BTEXN, PAH, Chlorinated hydrocarbons, VOC/SVOC	Analyses: VOC/SVOC	Analyses: Hold	Analyses: HOLD	Remarks
RIN1		1/05/2025		W				X				Metals (8) arsenic, cadmium, chromium, copper, nickel, lead, zinc, and mercury. Please report as GHD-QC06
RIN2		2/05/2025		W				X				Please report as GHD-QC07
FIELD1		2105/2025		W				X				Please report as GHD-QC08
FIELD2		2/05/2025		W				X				Please report as GHD-QC09
DUP1		1/05/2025		S				X				Please report as GHD-QC10
DUP2		1/05/2025		S				X				Please report as GHD-QC11
DUP3		2/05/2025		S						X		Please report as GHD-QC12
TRIP1		5/05/2025		S					X			Please report as GHD-QC13

Sampled by: Zak L & Connor A	Date/Time: 1-2/05/25	Relinquished by: Zak L & Connor A	Date/Time: 5/5/2025
Received by:	Date/Time:	Relinquished by:	Date/Time:

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street Perth WA 6000
PO Box 3106 Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* 12658388	**PO Number** (to be invoiced) 12658388
Laboratory Quote No.	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com	**Email Address (Results)** GHD.LabReports@ghd.com

Laboratory:
Address:
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: Metals (8), TRH, BTEXN, PAH, Chlorinated hydrocarbons	Analyses: VOC/SVOC	Analyses: HOLD	Remarks
GHD_MatBay1_HA01_0.1		2/05/2025		S				X			Metals (8) arsenic, cadmium, chromium, copper, nickel, lead, zinc, and mercury.
GHD_MatBay1_HA01_0.2		2/05/2025		S				X			
GHD_MatBay1_HA01_0.8		2/05/2025		S				X			
GHD_MatBay1_HA02_0.1		2/05/2025		S				X			
GHD_MatBay1_HA02_0.3		2/05/2025		S				X			
GHD_MatBay1_HA02_0.7		2/05/2025		S				X			
GHD_MatBay1_HA03_0.1		2/05/2025		S				X			
GHD_MatBay1_HA03_0.3		2/05/2025		S				X			
GHD_MatBay1_HA03_0.6		2/05/2025		S				X			
GHD_MatBay2_HA01_0.1		2/05/2025		S				X			
GHD_MatBay2_HA01_0.3		2/05/2025		S				X			
GHD_MatBay2_HA01_0.5		2/05/2025		S				X			
GHD_MatBay2_HA02_0.1		2/05/2025		S				X			
GHD_MatBay2_HA02_0.3		2/05/2025		S				X			
GHD_MatBay2_HA02_0.5		2/05/2025		S				X			
GHD_MatBay2_HA03_0.1		2/05/2025		S				X			
GHD_MatBay2_HA03_0.2		2/05/2025		S				X			
GHD_MatBay2_HA03_0.5		2/05/2025		S				X			

Sampled by: Zak L & Connor A	Date/Time: 1-2/05/25	Relinquished by: Zak L & Connor A	Date/Time: 5/5/2025
Received by:	Date/Time:	Relinquished by:	Date/Time:

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street
Perth WA 6000
PO Box 3106
Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)* 12658388	**PO Number** (to be invoiced) 12658388
Laboratory Quote No.	**Turnaround Time** Standard
Project Manager (Invoice) & GHD accounts AccountsPayableAU@ghd.com	**Email Address (Results)** GHD.LabReports@ghd.com

Laboratory: Eurofins | ARL
Address: 46-48 Banksia Rd, Welshpool WA 6106
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: Metals (8), TRH, BTEXN, PAH, Chlorinated hydrocarbons	Analyses: BTEXN, VOC/SVOC	Analyses: ACM ID	Analyses: asbestos fibre presence	Analyses: HOLD	Remarks
GHD_Applecross_HA01_0.1		1/05/2025		S				X					Metals (8) arsenic, cadmium, chromium, copper, nickel, lead, zinc, and mercury.
GHD_Applecross_HA01_0.3		1/05/2025		S				X					
GHD_Applecross_HA01_0.6		1/05/2025		S				X					
GHD_Applecross_HA01_1.25		1/05/2025		S				X					
GHD_Applecross_HA02_0.1		1/05/2025		S				X					
GHD_Applecross_HA02_0.4		1/05/2025		S				X					
GHD_Applecross_HA02_0.6		1/05/2025		S				X					
GHD_Applecross_HA02_0.8		1/05/2025		S				X					
GHD_Ellam_St_HA01_0.0		1/05/2025		S				X					
GHD_Ellam_St_HA01_0.2		1/05/2025		S				X					
GHD_Ellam_St_HA01_0.4		1/05/2025		S				X		X			
GHD_Ellam_St_HA02_0.1		1/05/2025		S				X					
GHD_Ellam_St_HA02_0.3		1/05/2025		S				X					
GHD_Ellam_St_HA02_0.5		1/05/2025		S				X					
GHD_Ellam_St_HA03_0.1		1/05/2025		S				X					
GHD_Ellam_St_HA03_0.4		1/05/2025		S				X					
GHD_Ellam_St_HA03_0.5		1/05/2025		S				X					
GHD_Ellam_St_HA03_0.8		1/05/2025		S				X					

Additional Samples:
GHD_Applecross_HA03_0.1
" _0.2
" _0.5

Note the remarks for RINJ → TRIP1

Sampled by: Zak L & Connor A	Date/Time: 1-2/05/25	Relinquished by: Zak L & Connor A	Date/Time: 5/5/2025
Received by:	Date/Time: 05/05/25 14:55	Relinquished by:	Date/Time:

Certificate of Analysis

GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025–Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention:	Zak Langtry
Report	1215966-AIS
Project Name	
Project ID	12658388
Received Date	May 05, 2025
Date Reported	May 16, 2025

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Man-made vitreous fibre (MMVF)	Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.
Subsampling Soil Samples	The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024*.*
Bonded asbestos-containing material (ACM)	The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 5370:2024*. *NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting (LOR)	The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Client Sample ID			**GHD_ELLAM_ST_HA01_0.4**
Sample Matrix			**Soil**
Eurofins Sample No.			**25-My0012130**
Date Sampled			**May 01, 2025**
	LOR	Unit	
Asbestos in Soils (AS 4964-2004)			
Sample Description	-	Comment	Brown coarse grain soil.
Total Dry Mass	0.1	g	651
Total Analytical Fraction	0.1	g	651
Asbestos Detected	-	Yes/No	Yes
Materials Identified	-	Comment	1. Grey fibre cement fragments
Fibres Identified	-	Comment	1. Chrysotile and amosite asbestos
Asbestos Content (as asbestos)	0.01	% w/w	0.10
Trace Analysis	0.1	g/kg	No trace asbestos.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
LTM-ASB-8020 Method for the Qualitative Identification of Asbestos in Bulk Samples (AS 4964-2004)	Welshpool	May 12, 2025	Indefinite

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

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ABN: 91 05 0159 898

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Site# 2370 & 2554

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+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 14, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	GHD_APPLECROSS_HA01_0.1	May 01, 2025		Soil	L25-My0012120			X	X	X	X	
2	GHD_APPLECROSS_HA01_0.3	May 01, 2025		Soil	L25-My0012121			X	X	X	X	
3	GHD_APPLECROSS_HA01_0.6	May 01, 2025		Soil	L25-My0012122			X	X	X	X	
4	GHD_APPLECROSS_HA01_1.25	May 01, 2025		Soil	L25-My0012123			X	X	X	X	
5	GHD_APPLECROSS_HA02_0.1	May 01, 2025		Soil	L25-My0012124			X	X	X	X	
6	GHD_APPLECROSS_HA02_	May 01, 2025		Soil	L25-My0012125			X	X	X	X	

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Site# 2370 & 2554

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Melbourne
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NATA# 1261
Site# 1254

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NATA# 1261
Site# 25403

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Site# 18217

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NATA# 1261
Site# 25466

Brisbane
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NATA# 1261
Site# 20794 & 2780

Newcastle
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IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
Perth
WA 6004

Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 14, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
	0.4											
7	GHD_APPLECROSS_HA02_0.6	May 01, 2025		Soil	L25-My0012126			X	X	X	X	
8	GHD_APPLECROSS_HA02_0.8	May 01, 2025		Soil	L25-My0012127			X	X	X	X	
9	GHD_ELLAM_ST_HA01_0.0	May 01, 2025		Soil	L25-My0012128			X	X	X	X	
10	GHD_ELLAM_ST_HA01_0.2	May 01, 2025		Soil	L25-My0012129			X	X	X	X	
11	GHD_ELLAM_ST_HA01_0.4	May 01, 2025		Soil	L25-My0012130	X						
12	GHD_ELLAM_ST_HA02_0.1	May 01, 2025		Soil	L25-My0012131			X	X	X	X	
13	GHD_ELLAM_ST_HA02_0.3	May 01, 2025		Soil	L25-My0012132			X	X	X	X	
14	GHD_ELLAM_	May 01, 2025		Soil	L25-My0012133			X	X	X	X	

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

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1277 Cameron Road
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+64 9 525 0568
IANZ# 1402

Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
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WA 6004

Project Name:
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Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
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Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
14	GHD_ELLAM_ST_HA02_0.5	May 01, 2025		Soil	L25-My0012133							
15	GHD_ELLAM_ST_HA03_0.1	May 01, 2025		Soil	L25-My0012134			X	X	X	X	
16	GHD_ELLAM_ST_HA03_0.4	May 01, 2025		Soil	L25-My0012135			X	X	X	X	
17	GHD_ELLAM_ST_HA03_0.5	May 01, 2025		Soil	L25-My0012136			X	X	X	X	
18	GHD_ELLAM_ST_HA03_0.8	May 01, 2025		Soil	L25-My0012137			X	X	X	X	
19	GHD_MATBAY1_HA01_0.1	May 02, 2025		Soil	L25-My0012138			X	X	X	X	
20	GHD_MATBAY1_HA01_0.2	May 02, 2025		Soil	L25-My0012139			X	X	X	X	
21	GHD_MATBAY1_HA01_0.8	May 02, 2025		Soil	L25-My0012140			X	X	X	X	
22	GHD_MATBAY1_HA02_0.1	May 02, 2025		Soil	L25-My0012141			X	X	X	X	

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Company Name: GHD Pty Ltd WA
Address: 999 Hay Street Perth
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WA 6004

Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 14, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
23	GHD_MATBAY1_HA02_0.3	May 02, 2025		Soil	L25-My0012142			X	X	X	X	
24	GHD_MATBAY1_HA02_0.7	May 02, 2025		Soil	L25-My0012143			X	X	X	X	
25	GHD_MATBAY1_HA03_0.1	May 02, 2025		Soil	L25-My0012144			X	X	X	X	
26	GHD_MATBAY1_HA03_0.3	May 02, 2025		Soil	L25-My0012145			X	X	X	X	
27	GHD_MATBAY1_HA03_0.6	May 02, 2025		Soil	L25-My0012146			X	X	X	X	
28	GHD_MATBAY2_HA01_0.1	May 02, 2025		Soil	L25-My0012147			X	X	X	X	
29	GHD_MATBAY2_HA01_0.3	May 02, 2025		Soil	L25-My0012148			X	X	X	X	
30	GHD_MATBAY2_HA01_0.5	May 02, 2025		Soil	L25-My0012149			X	X	X	X	
31	GHD_MATBAY2_HA02_0.1	May 02, 2025		Soil	L25-My0012150			X	X	X	X	

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Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
32	GHD_MATBAY2_HA02_0.3	May 02, 2025		Soil	L25-My0012151			X	X	X	X	
33	GHD_MATBAY2_HA02_0.5	May 02, 2025		Soil	L25-My0012152			X	X	X	X	
34	GHD_MATBAY2_HA03_0.1	May 02, 2025		Soil	L25-My0012153			X	X	X	X	
35	GHD_MATBAY2_HA03_0.2	May 02, 2025		Soil	L25-My0012154			X	X	X	X	
36	GHD_MATBAY2_HA03_0.5	May 02, 2025		Soil	L25-My0012155			X	X	X	X	
37	GHD_QC06	May 01, 2025		Water	L25-My0012156			X		X	X	
38	GHD_QC07	May 02, 2025		Water	L25-My0012157			X		X	X	
39	GHD_QC08	May 02, 2025		Water	L25-My0012158			X		X	X	
40	GHD_QC09	May 02, 2025		Water	L25-My0012159			X		X	X	
41	GHD_QC10	May 01, 2025		Soil	L25-My0012160			X	X	X	X	
42	GHD_QC11	May 01, 2025		Soil	L25-My0012161			X	X	X	X	

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Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						Asbestos in Soils (AS 4964-2004)	HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254											X	
External Laboratory												
43	GHD_QC13	May 05, 2025		Soil	L25-My0012162				X			X
44	GHD_QC12	May 02, 2025		Soil	L25-My0012163		X					
45	GHD_APPLECROSS_HA03_0.1	May 01, 2025		Soil	L25-My0012164			X	X	X	X	
46	GHD_APPLECROSS_HA03_0.2	May 01, 2025		Soil	L25-My0012165			X	X	X	X	
47	GHD_APPLECROSS_HA03_0.5	May 01, 2025		Soil	L25-My0012166			X	X	X	X	
Test Counts						1	1	44	41	44	44	1

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report in blue indicates data provided by the customer that may impact the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%Asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos in a non-asbestos matrix is typically presented in bonded (non-friable) condition. For the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material, such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
Dry	Sample is dried by heating before analysis.
DS	Dispersion Staining. The technique required for unequivocal identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos-containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material previously non-friable and severely degraded. For the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess the degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012), ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and “bio-soluble fibres. NOTE: previously known as “synthetic mineral fibre” (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified per AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
PCM	Phase Contrast Microscopy. This is used for fibre counting, according to the MFM.
PLM	Polarised Light Microscopy. It is used for fibre identification and residual analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Residual Analysis	An analytical procedure is used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly Trace Analysis in AS 4964-2004.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
Inconclusive	Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos. SEM/TEM is required for definitive identification.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Gustav Myburgh	Senior Analyst-Asbestos

Authorised by:

Rhys Thomas	Senior Analyst-Asbestos

Kim Rodgers
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
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WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Zak Langtry**

Report **1215966-S**
Project name
Project ID 12658388
Received Date May 05, 2025

Client Sample ID			**GHD_APPLECROSS_HA01_0.1**	**GHD_APPLECROSS_HA01_0.3**	**GHD_APPLECROSS_HA01_0.6**	**GHD_APPLECROSS_HA01_1.25**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	66	69	64	73
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA01_0.1	GHD_APPLECROSS_HA01_0.3	GHD_APPLECROSS_HA01_0.6	GHD_APPLECROSS_HA01_1.25
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	66	69	64	73
Toluene-d8 (surr.)	1	%	124	98	88	116
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA01_0.1	GHD_APPLECROSS_HA01_0.3	GHD_APPLECROSS_HA01_0.6	GHD_APPLECROSS_HA01_1.25
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	74	54	68
p-Terphenyl-d14 (surr.)	1	%	91	94	96	102
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	74	54	68
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

Client Sample ID			GHD_APPLECROSS_HA01_0.1	GHD_APPLECROSS_HA01_0.3	GHD_APPLECROSS_HA01_0.6	GHD_APPLECROSS_HA01_1.25
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	91	94	96	102
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA01_0.1	GHD_APPLECROSS_HA01_0.3	GHD_APPLECROSS_HA01_0.6	GHD_APPLECROSS_HA01_1.25
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	81	79	58	71
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	50	74	107	117
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	4.3	6.0	2.5	1.6
Copper	1	mg/kg	5.1	3.3	1.8	1.2
Lead	1	mg/kg	39	68	17	6.4
Mercury	0.02	mg/kg	0.02	0.03	0.03	0.04

Client Sample ID			GHD_APPLECROSS_HA01_0.1	GHD_APPLECROSS_HA01_0.3	GHD_APPLECROSS_HA01_0.6	GHD_APPLECROSS_HA01_1.25
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012120**	**L25-My0012121**	**L25-My0012122**	**L25-My0012123**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Metals M8						
Nickel	1	mg/kg	1.2	1.7	< 1	< 1
Zinc	5	mg/kg	26	46	16	8.0
% Moisture	1	%	7.4	7.2	13	24

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	97	69	62	57
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	97	69	62	57
Toluene-d8 (surr.)	1	%	113	83	142	110
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	52	68	64	72
p-Terphenyl-d14 (surr.)	1	%	68	106	100	111
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	52	68	64	72
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	68	106	100	111
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	57	68	58	65
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	63	96	74	102
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	6.5	6.9	1.5	< 1
Copper	1	mg/kg	3.1	2.7	< 1	< 1
Lead	1	mg/kg	9.4	15	1.9	< 1
Mercury	0.02	mg/kg	0.02	0.03	< 0.02	< 0.02

Client Sample ID			GHD_APPLECROSS_HA02_0.1	GHD_APPLECROSS_HA02_0.4	GHD_APPLECROSS_HA02_0.6	GHD_APPLECROSS_HA02_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012124**	**L25-My0012125**	**L25-My0012126**	**L25-My0012127**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Metals M8						
Nickel	1	mg/kg	1.0	1.0	< 1	< 1
Zinc	5	mg/kg	17	19	< 5	< 5
% Moisture	1	%	4.2	4.5	3.2	14

Client Sample ID			GHD_ELLAM_ST_HA01_0.0	GHD_ELLAM_ST_HA01_0.2	GHD_ELLAM_ST_HA02_0.1	GHD_ELLAM_ST_HA02_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012128**	**L25-My0012129**	**L25-My0012131**	**L25-My0012132**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	44	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	1600	110	< 50	< 50
TRH C29-C36	50	mg/kg	1600	140	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	3244	250	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	71	73	61	66
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA01_0.0	GHD_ELLAM_ST_HA01_0.2	GHD_ELLAM_ST_HA02_0.1	GHD_ELLAM_ST_HA02_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012128**	**L25-My0012129**	**L25-My0012131**	**L25-My0012132**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	71	73	61	66
Toluene-d8 (surr.)	1	%	112	118	78	78
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	110	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA01_0.0	GHD_ELLAM_ST_HA01_0.2	GHD_ELLAM_ST_HA02_0.1	GHD_ELLAM_ST_HA02_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012128**	**L25-My0012129**	**L25-My0012131**	**L25-My0012132**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	60	69	67
p-Terphenyl-d14 (surr.)	1	%	90	81	82	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	110	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	2700	210	< 100	< 100
TRH >C34-C40	100	mg/kg	820	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	3630	210	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	80	60	69	67
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			GHD_ELLAM_ST_HA01_0.0	GHD_ELLAM_ST_HA01_0.2	GHD_ELLAM_ST_HA02_0.1	GHD_ELLAM_ST_HA02_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012128**	**L25-My0012129**	**L25-My0012131**	**L25-My0012132**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	90	81	82	89
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA01_0.0	GHD_ELLAM_ST_HA01_0.2	GHD_ELLAM_ST_HA02_0.1	GHD_ELLAM_ST_HA02_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012128**	**L25-My0012129**	**L25-My0012131**	**L25-My0012132**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	87	73	86	78
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	51	72	62	53
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	3.6	3.2	3.9	4.3
Copper	1	mg/kg	1.6	< 1	< 1	< 1
Lead	1	mg/kg	3.6	2.5	4.6	1.7
Mercury	0.02	mg/kg	0.03	0.02	< 0.02	0.02
Nickel	1	mg/kg	< 1	< 1	< 1	< 1
Zinc	5	mg/kg	10	< 5	16	< 5
% Moisture	1	%	2.8	1.5	< 1	7.7

Client Sample ID			GHD_ELLAM_ST_HA02_0.5	GHD_ELLAM_ST_HA03_0.1	GHD_ELLAM_ST_HA03_0.4	GHD_ELLAM_ST_HA03_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012133**	**L25-My0012134**	**L25-My0012135**	**L25-My0012136**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	67	68	67	67
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA02_0.5	GHD_ELLAM_ST_HA03_0.1	GHD_ELLAM_ST_HA03_0.4	GHD_ELLAM_ST_HA03_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012133**	**L25-My0012134**	**L25-My0012135**	**L25-My0012136**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	67	68	67	67
Toluene-d8 (surr.)	1	%	89	136	145	120
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA02_0.5	GHD_ELLAM_ST_HA03_0.1	GHD_ELLAM_ST_HA03_0.4	GHD_ELLAM_ST_HA03_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012133**	**L25-My0012134**	**L25-My0012135**	**L25-My0012136**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	84	56	68	62
p-Terphenyl-d14 (surr.)	1	%	95	68	84	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	84	56	68	62
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	95	68	84	82
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA02_0.5	GHD_ELLAM_ST_HA03_0.1	GHD_ELLAM_ST_HA03_0.4	GHD_ELLAM_ST_HA03_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012133**	**L25-My0012134**	**L25-My0012135**	**L25-My0012136**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA02_0.5	GHD_ELLAM_ST_HA03_0.1	GHD_ELLAM_ST_HA03_0.4	GHD_ELLAM_ST_HA03_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012133**	**L25-My0012134**	**L25-My0012135**	**L25-My0012136**
Date Sampled			**May 01, 2025**	**May 01, 2025**	**May 01, 2025**	**May 01, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	98	79	71	60
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	81	83	131	58
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	4.4	2.1	3.8	3.0
Copper	1	mg/kg	1.4	1.6	2.2	1.8
Lead	1	mg/kg	2.0	2.7	3.7	2.0
Mercury	0.02	mg/kg	0.03	< 0.02	0.02	< 0.02
Nickel	1	mg/kg	1.4	< 1	< 1	< 1
Zinc	5	mg/kg	7.0	8.6	6.9	6.1
% Moisture	1	%	6.9	1.9	3.3	3.3

Client Sample ID			GHD_ELLAM_ST_HA03_0.8	GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012137**	**L25-My0012138**	**L25-My0012139**	**L25-My0012140**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	61	68	62	71
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA03_0.8	GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012137**	**L25-My0012138**	**L25-My0012139**	**L25-My0012140**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	61	68	62	71
Toluene-d8 (surr.)	1	%	101	91	136	115
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.7	0.7	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.0	1.1	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.3	1.4	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.5	0.7	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.4	2.0	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	4.5	3.3	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA03_0.8	GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012137**	**L25-My0012138**	**L25-My0012139**	**L25-My0012140**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	62	62	62	76
p-Terphenyl-d14 (surr.)	1	%	84	84	82	93
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	0.7	0.7	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	4.5	3.3	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	1.0	1.1	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.3	1.4	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	62	62	62	76
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	84	84	82	93
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA03_0.8	GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012137**	**L25-My0012138**	**L25-My0012139**	**L25-My0012140**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	0.5	0.7	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_ELLAM_ST_HA03_0.8	GHD_MATBAY1_HA01_0.1	GHD_MATBAY1_HA01_0.2	GHD_MATBAY1_HA01_0.8
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012137**	**L25-My0012138**	**L25-My0012139**	**L25-My0012140**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	78	78	60	95
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	95	95	58	69
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	1.4	2.0	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	8.5	3.4	6.3	< 2
Cadmium	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	35	8.3	15	1.4
Copper	1	mg/kg	19	5.9	11	< 1
Lead	1	mg/kg	17	26	110	1.6
Mercury	0.02	mg/kg	0.06	0.03	0.03	< 0.02
Nickel	1	mg/kg	10	1.2	1.8	< 1
Zinc	5	mg/kg	41	20	79	7.1
% Moisture	1	%	38	7.4	6.7	2.6

Client Sample ID			GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012141**	**L25-My0012142**	**L25-My0012143**	**L25-My0012144**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	73	77	73	85
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012141**	**L25-My0012142**	**L25-My0012143**	**L25-My0012144**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	73	77	73	85
Toluene-d8 (surr.)	1	%	84	71	143	82
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012141**	**L25-My0012142**	**L25-My0012143**	**L25-My0012144**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	72	75	71	78
p-Terphenyl-d14 (surr.)	1	%	87	92	85	100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	72	75	71	78
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	87	92	85	100
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012141**	**L25-My0012142**	**L25-My0012143**	**L25-My0012144**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA02_0.1	GHD_MATBAY1_HA02_0.3	GHD_MATBAY1_HA02_0.7	GHD_MATBAY1_HA03_0.1
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012141**	**L25-My0012142**	**L25-My0012143**	**L25-My0012144**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	82	87	81	88
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	66	112	50	64
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	11	4.3	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	21	2.5	1.3	5.1
Copper	1	mg/kg	11	2.1	< 1	5.2
Lead	1	mg/kg	53	8.0	1.6	14
Mercury	0.02	mg/kg	0.03	< 0.02	< 0.02	0.03
Nickel	1	mg/kg	1.5	< 1	< 1	1.2
Zinc	5	mg/kg	14	< 5	< 5	20
% Moisture	1	%	8.6	4.4	2.8	8.6

Client Sample ID			GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012145**	**L25-My0012146**	**L25-My0012147**	**L25-My0012148**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	68	58	81	78
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012145**	**L25-My0012146**	**L25-My0012147**	**L25-My0012148**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	68	58	81	78
Toluene-d8 (surr.)	1	%	56	83	96	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012145**	**L25-My0012146**	**L25-My0012147**	**L25-My0012148**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	67	71	78	74
p-Terphenyl-d14 (surr.)	1	%	95	98	104	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	67	71	78	74
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	95	98	104	98
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012145**	**L25-My0012146**	**L25-My0012147**	**L25-My0012148**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY1_HA03_0.3	GHD_MATBAY1_HA03_0.6	GHD_MATBAY2_HA01_0.1	GHD_MATBAY2_HA01_0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012145**	**L25-My0012146**	**L25-My0012147**	**L25-My0012148**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	74	83	98	81
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	84	74	95	81
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	6.6	11	1.3	1.0
Copper	1	mg/kg	2.8	1.2	1.7	1.4
Lead	1	mg/kg	7.3	7.3	3.4	2.0
Mercury	0.02	mg/kg	0.04	0.04	< 0.02	< 0.02
Nickel	1	mg/kg	1.4	1.7	< 1	< 1
Zinc	5	mg/kg	45	< 5	6.8	< 5
% Moisture	1	%	11	13	5.2	3.7

Client Sample ID			GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012149**	**L25-My0012150**	**L25-My0012151**	**L25-My0012152**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	70	62	70	80
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012149**	**L25-My0012150**	**L25-My0012151**	**L25-My0012152**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	70	62	70	80
Toluene-d8 (surr.)	1	%	91	74	68	65
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012149**	**L25-My0012150**	**L25-My0012151**	**L25-My0012152**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	68	67	80	69
p-Terphenyl-d14 (surr.)	1	%	80	104	103	98
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	68	67	80	69
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	80	104	103	98
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012149**	**L25-My0012150**	**L25-My0012151**	**L25-My0012152**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA01_0.5	GHD_MATBAY2_HA02_0.1	GHD_MATBAY2_HA02_0.3	GHD_MATBAY2_HA02_0.5
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**L25-My0012149**	**L25-My0012150**	**L25-My0012151**	**L25-My0012152**
Date Sampled			**May 02, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	80	78	90	81
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	107	63	50	90
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	2.2	2.4	6.2	3.3
Copper	1	mg/kg	4.1	1.5	6.3	1.9
Lead	1	mg/kg	4.3	5.9	30	7.3
Mercury	0.02	mg/kg	0.02	< 0.02	0.03	< 0.02
Nickel	1	mg/kg	< 1	< 1	1.5	< 1
Zinc	5	mg/kg	10.0	5.0	27	5.8
% Moisture	1	%	3.1	5.0	6.1	4.4

Client Sample ID			GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5	GHD_QC10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012153	L25-My0012154	L25-My0012155	L25-My0012160
Date Sampled			May 02, 2025	May 02, 2025	May 02, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	52	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	52	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	67	58	72	78
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5	GHD_QC10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012153	L25-My0012154	L25-My0012155	L25-My0012160
Date Sampled			May 02, 2025	May 02, 2025	May 02, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	67	58	72	78
Toluene-d8 (surr.)	1	%	99	96	128	97
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5	GHD_QC10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012153	L25-My0012154	L25-My0012155	L25-My0012160
Date Sampled			May 02, 2025	May 02, 2025	May 02, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
2-Fluorobiphenyl (surr.)	1	%	84	74	69	70
p-Terphenyl-d14 (surr.)	1	%	103	94	86	89
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	84	74	69	70
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	103	94	86	89
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5	GHD_QC10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012153	L25-My0012154	L25-My0012155	L25-My0012160
Date Sampled			May 02, 2025	May 02, 2025	May 02, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			GHD_MATBAY2_HA03_0.1	GHD_MATBAY2_HA03_0.2	GHD_MATBAY2_HA03_0.5	GHD_QC10
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012153	L25-My0012154	L25-My0012155	L25-My0012160
Date Sampled			May 02, 2025	May 02, 2025	May 02, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
g-HCH (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	103	85	72	93
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	50	89	69	108
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Chromium	1	mg/kg	6.0	4.8	4.5	3.3
Copper	1	mg/kg	6.1	2.1	1.1	1.1
Lead	1	mg/kg	31	7.6	3.1	4.0
Mercury	0.02	mg/kg	0.04	0.03	0.02	0.02
Nickel	1	mg/kg	1.6	1.7	1.1	< 1
Zinc	5	mg/kg	26	5.9	< 5	8.7
% Moisture	1	%	5.7	3.2	2.0	1.2

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	-	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	-	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	67	-	77	59
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Volatile Organics						
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	67	-	77	59
Toluene-d8 (surr.)	1	%	103	-	114	58
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20	< 20
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	1.8
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	1.8
2-Fluorobiphenyl (surr.)	1	%	84	-	56	68
p-Terphenyl-d14 (surr.)	1	%	95	-	68	84
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	< 100	< 100
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	-	< 0.5	1.8
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	84	-	56	68
2-Methylnaphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Nitrophenol	1	mg/kg	< 1	-	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5	-	< 5	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.4.6-Tribromophenol (surr.)	1	%	95	-	68	84
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	-	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
a-HCH	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acetophenone	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
b-HCH	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	1.8
d-HCH	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
Endrin ketone	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Nitrobenzene-d5 (surr.)	1	%	98	-	79	71
Pentachlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pentachlorophenol	1	mg/kg	< 1	-	< 1	< 1
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	81	-	83	131
Pronamide	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trifluralin	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Metals M8						
Arsenic	2	mg/kg	< 2	-	< 2	2.4
Cadmium	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chromium	1	mg/kg	4.1	-	5.3	11
Copper	1	mg/kg	2.6	-	3.2	< 1
Lead	1	mg/kg	5.7	-	8.9	3.0
Mercury	0.02	mg/kg	0.03	-	0.02	0.03
Nickel	1	mg/kg	< 1	-	< 1	< 1
Zinc	5	mg/kg	14	-	20	6.9
% Moisture	1	%	2.6	6.3	6.5	6.2
VOCs in Soil by GCMS						
Benzene	0.1	mg/kg	-	< 0.1	-	-
Carbon tetrachloride	0.1	mg/kg	-	< 0.1	-	-
Chlorobenzene	0.1	mg/kg	-	< 0.1	-	-
DCM	10	mg/kg	-	< 10	-	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	-	-
Hexachlorobutadiene	0.1	mg/kg	-	< 0.1	-	-
Methyl-tert-Butyl Ether	0.1	mg/kg	-	< 0.1	-	-
Styrene	0.1	mg/kg	-	< 0.1	-	-

Client Sample ID			GHD_QC11	GHD_QC13	GHD_APPLECROSS_HA03_0.1	GHD_APPLECROSS_HA03_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			L25-My0012161	L25-My0012162	L25-My0012164	L25-My0012165
Date Sampled			May 01, 2025	May 05, 2025	May 01, 2025	May 01, 2025
Test/Reference	LOR	Unit				
VOCs in Soil by GCMS						
Perchloroethene (PCE)	0.1	mg/kg	-	< 0.1	-	-
Toluene	0.1	mg/kg	-	< 0.1	-	-
Trichloroethylene(TCE)	0.1	mg/kg	-	< 0.1	-	-
Vinyl Chloride	0.2	mg/kg	-	< 0.2	-	-
Xylenes (Total)	0.2	mg/kg	-	< 0.2	-	-
1.1-Dichloroethane	0.2	mg/kg	-	< 0.2	-	-
1.2-Dichloroethane	0.1	mg/kg	-	< 0.1	-	-
1.1-Dichloroethene	0.2	mg/kg	-	< 0.2	-	-
cis-1.2-Dichloroethene	0.1	mg/kg	-	< 0.1	-	-
trans-1.2-Dichloroethene	0.2	mg/kg	-	< 0.2	-	-
1.1.1-Trichloroethane	0.2	mg/kg	-	< 0.2	-	-
1.1.1.2-Tetrachloroethane	0.1	mg/kg	-	< 0.1	-	-
1.1.2.2-Tetrachloroethane	0.1	mg/kg	-	< 0.1	-	-
1.2-Dichlorobenzene	0.1	mg/kg	-	< 0.1	-	-
1.3-Dichlorobenzene	0.1	mg/kg	-	< 0.1	-	-
1.4-Dichlorobenzene	0.1	mg/kg	-	< 0.1	-	-
1.2.3-Trichlorobenzene	0.1	mg/kg	-	< 0.1	-	-
1.2.4-Trichlorobenzene	0.1	mg/kg	-	< 0.1	-	-
1.3.5-Trichlorobenzene	0.1	mg/kg	-	< 0.1	-	-

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			Soil
Eurofins Sample No.			L25-My0012166
Date Sampled			May 01, 2025
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	72
Volatile Organics			
1.1-Dichloroethane	0.5	mg/kg	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-My0012166**
Date Sampled			**May 01, 2025**
Test/Reference	LOR	Unit	
Volatile Organics			
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5
Benzene	0.1	mg/kg	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5
Bromoform	0.5	mg/kg	< 0.5
Bromomethane	0.5	mg/kg	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5
Chloroethane	0.5	mg/kg	< 0.5
Chloroform	0.5	mg/kg	< 0.5
Chloromethane	0.5	mg/kg	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1
Iodomethane	0.5	mg/kg	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5
o-Xylene	0.1	mg/kg	< 0.1
Styrene	0.5	mg/kg	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5
Toluene	0.1	mg/kg	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-My0012166**
Date Sampled			**May 01, 2025**
Test/Reference	LOR	Unit	
Volatile Organics			
Xylenes - Total*	0.3	mg/kg	< 0.3
Total MAH*	0.5	mg/kg	< 0.5
4-Bromofluorobenzene (surr.)	1	%	72
Toluene-d8 (surr.)	1	%	103
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	71
p-Terphenyl-d14 (surr.)	1	%	91
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
TRH >C10-C16	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Semivolatile Organics			
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-My0012166**
Date Sampled			**May 01, 2025**
Test/Reference	LOR	Unit	
Semivolatile Organics			
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	71
2-Methylnaphthalene	0.5	mg/kg	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5
2-Nitrophenol	1	mg/kg	< 1
2-Picoline	0.5	mg/kg	< 0.5
2.3.4.6-Tetrachlorophenol	5	mg/kg	< 5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
2.4.5-Trichlorophenol	1	mg/kg	< 1
2.4.6-Tribromophenol (surr.)	1	%	91
2.4.6-Trichlorophenol	1	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
2.4-Dinitrotoluene	0.2	mg/kg	< 0.2
2.6-Dinitrotoluene	0.2	mg/kg	< 0.2
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.2	mg/kg	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5
4-Nitrophenol	5	mg/kg	< 5
4.4'-DDD	0.5	mg/kg	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5
a-HCH	0.5	mg/kg	< 0.5
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Acetophenone	0.5	mg/kg	< 0.5
Aldrin	0.5	mg/kg	< 0.5
Aniline	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-My0012166**
Date Sampled			**May 01, 2025**
Test/Reference	LOR	Unit	
Semivolatile Organics			
b-HCH	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
d-HCH	0.5	mg/kg	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5
Dieldrin	0.5	mg/kg	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5
Endrin	0.5	mg/kg	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
g-HCH (Lindane)	0.5	mg/kg	< 0.5
Heptachlor	0.5	mg/kg	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5
Nitrobenzene-d5 (surr.)	1	%	80
Pentachlorobenzene	0.5	mg/kg	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5

Client Sample ID			GHD_APPLECROSS_HA03_0.5
Sample Matrix			**Soil**
Eurofins Sample No.			**L25-My0012166**
Date Sampled			**May 01, 2025**
Test/Reference	LOR	Unit	
Semivolatile Organics			
Pentachlorophenol	1	mg/kg	< 1
Phenanthrene	0.5	mg/kg	< 0.5
Phenol	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	93
Pronamide	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Trifluralin	0.5	mg/kg	< 0.5
Metals M8			
Arsenic	2	mg/kg	2.2
Cadmium	0.1	mg/kg	< 0.1
Chromium	1	mg/kg	11
Copper	1	mg/kg	< 1
Lead	1	mg/kg	3.7
Mercury	0.02	mg/kg	0.03
Nickel	1	mg/kg	2.1
Zinc	5	mg/kg	< 5
% Moisture	1	%	10

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Welshpool	May 15, 2025	7 Days
- Method: ARL 133 - Purgeable Organics in Soil and Sediment by GCMS			
Semivolatile Organics	Welshpool	May 15, 2025	14 Days
- Method: LTM-ORG-2190 SVOC in Water & Soil by GC-MS			
Metals M8	Welshpool	May 06, 2025	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
VOCs in Soil by GCMS	Welshpool	May 06, 2025	7 Days
- Method: ARL133 - Purgeable Volatile Organic Compounds in Soil by GCMS			
% Moisture	Welshpool	May 06, 2025	14 Days
- Method: ARL135 Moisture in Solids			

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Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 12, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	GHD_APPLECROSS_HA01_0.1	May 01, 2025		Soil	L25-My0012120		X	X	X	X		
2	GHD_APPLECROSS_HA01_0.3	May 01, 2025		Soil	L25-My0012121		X	X	X	X		
3	GHD_APPLECROSS_HA01_0.6	May 01, 2025		Soil	L25-My0012122		X	X	X	X		
4	GHD_APPLECROSS_HA01_1.25	May 01, 2025		Soil	L25-My0012123		X	X	X	X		
5	GHD_APPLECROSS_HA02_0.1	May 01, 2025		Soil	L25-My0012124		X	X	X	X		
6	GHD_APPLECROSS_HA02_	May 01, 2025		Soil	L25-My0012125		X	X	X	X		

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Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
	0.4											
7	GHD_APPLECROSS_HA02_0.6	May 01, 2025		Soil	L25-My0012126		X	X	X	X		
8	GHD_APPLECROSS_HA02_0.8	May 01, 2025		Soil	L25-My0012127		X	X	X	X		
9	GHD_ELLAM_ST_HA01_0.0	May 01, 2025		Soil	L25-My0012128		X	X	X	X		
10	GHD_ELLAM_ST_HA01_0.2	May 01, 2025		Soil	L25-My0012129		X	X	X	X		
11	GHD_ELLAM_ST_HA01_0.4	May 01, 2025		Soil	L25-My0012130		X	X	X	X	X	
12	GHD_ELLAM_ST_HA02_0.1	May 01, 2025		Soil	L25-My0012131		X	X	X	X		
13	GHD_ELLAM_ST_HA02_0.3	May 01, 2025		Soil	L25-My0012132		X	X	X	X		
14	GHD_ELLAM_	May 01, 2025		Soil	L25-My0012133		X	X	X	X		

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Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
14	GHD_ELLAM_ST_HA02_0.5	May 01, 2025		Soil	L25-My0012133							
15	GHD_ELLAM_ST_HA03_0.1	May 01, 2025		Soil	L25-My0012134		X	X	X	X		
16	GHD_ELLAM_ST_HA03_0.4	May 01, 2025		Soil	L25-My0012135		X	X	X	X		
17	GHD_ELLAM_ST_HA03_0.5	May 01, 2025		Soil	L25-My0012136		X	X	X	X		
18	GHD_ELLAM_ST_HA03_0.8	May 01, 2025		Soil	L25-My0012137		X	X	X	X		
19	GHD_MATBAY1_HA01_0.1	May 02, 2025		Soil	L25-My0012138		X	X	X	X		
20	GHD_MATBAY1_HA01_0.2	May 02, 2025		Soil	L25-My0012139		X	X	X	X		
21	GHD_MATBAY1_HA01_0.8	May 02, 2025		Soil	L25-My0012140		X	X	X	X		
22	GHD_MATBAY1_HA02_0.1	May 02, 2025		Soil	L25-My0012141		X	X	X	X		

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
23	GHD_MATBAY1_HA02_0.3	May 02, 2025		Soil	L25-My0012142		X	X	X	X		
24	GHD_MATBAY1_HA02_0.7	May 02, 2025		Soil	L25-My0012143		X	X	X	X		
25	GHD_MATBAY1_HA03_0.1	May 02, 2025		Soil	L25-My0012144		X	X	X	X		
26	GHD_MATBAY1_HA03_0.3	May 02, 2025		Soil	L25-My0012145		X	X	X	X		
27	GHD_MATBAY1_HA03_0.6	May 02, 2025		Soil	L25-My0012146		X	X	X	X		
28	GHD_MATBAY2_HA01_0.1	May 02, 2025		Soil	L25-My0012147		X	X	X	X		
29	GHD_MATBAY2_HA01_0.3	May 02, 2025		Soil	L25-My0012148		X	X	X	X		
30	GHD_MATBAY2_HA01_0.5	May 02, 2025		Soil	L25-My0012149		X	X	X	X		
31	GHD_MATBAY2_HA02_0.1	May 02, 2025		Soil	L25-My0012150		X	X	X	X		

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Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 12, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
32	GHD_MATBAY2_HA02_0.3	May 02, 2025		Soil	L25-My0012151		X	X	X	X		
33	GHD_MATBAY2_HA02_0.5	May 02, 2025		Soil	L25-My0012152		X	X	X	X		
34	GHD_MATBAY2_HA03_0.1	May 02, 2025		Soil	L25-My0012153		X	X	X	X		
35	GHD_MATBAY2_HA03_0.2	May 02, 2025		Soil	L25-My0012154		X	X	X	X		
36	GHD_MATBAY2_HA03_0.5	May 02, 2025		Soil	L25-My0012155		X	X	X	X		
37	GHD_QC06	May 01, 2025		Water	L25-My0012156		X		X	X		
38	GHD_QC07	May 02, 2025		Water	L25-My0012157		X		X	X		
39	GHD_QC08	May 02, 2025		Water	L25-My0012158		X		X	X		
40	GHD_QC09	May 02, 2025		Water	L25-My0012159		X		X	X		
41	GHD_QC10	May 01, 2025		Soil	L25-My0012160		X	X	X	X		
42	GHD_QC11	May 01, 2025		Soil	L25-My0012161		X	X	X	X		

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Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
43	GHD_QC13	May 05, 2025		Soil	L25-My0012162			X				X
44	GHD_QC12	May 02, 2025		Soil	L25-My0012163	X						
45	GHD_APPLECROSS_HA03_0.1	May 01, 2025		Soil	L25-My0012164		X	X	X	X		
46	GHD_APPLECROSS_HA03_0.2	May 01, 2025		Soil	L25-My0012165		X	X	X	X		
47	GHD_APPLECROSS_HA03_0.5	May 01, 2025		Soil	L25-My0012166		X	X	X	X		
Test Counts						1	45	42	45	45	1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit
Colour: Pt-Co Units (CU)

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 0.5			0.5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 5			5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.2			0.2	Pass	
2.6-Dinitrotoluene	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 0.5			0.5	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-HCH	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-HCH	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-HCH	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-HCH (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 0.5			0.5	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chromium	mg/kg	< 1			1	Pass	
Copper	mg/kg	< 1			1	Pass	
Lead	mg/kg	< 1			1	Pass	
Mercury	mg/kg	< 0.02			0.02	Pass	
Nickel	mg/kg	< 1			1	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	
Chromium	mg/kg	< 1			1	Pass	
Copper	mg/kg	< 1			1	Pass	
Lead	mg/kg	< 1			1	Pass	
Mercury	mg/kg	< 0.02			0.02	Pass	
Nickel	mg/kg	< 1			1	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 0.5			0.5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 5			5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.2			0.2	Pass	
2.6-Dinitrotoluene	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 0.5			0.5	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-HCH	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
b-HCH	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-HCH	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-HCH (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 0.5			0.5	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
VOCs in Soil by GCMS							
Benzene	mg/kg	< 0.1			0.1	Pass	
Carbon tetrachloride	mg/kg	< 0.1			0.1	Pass	
Chlorobenzene	mg/kg	< 0.1			0.1	Pass	
DCM	mg/kg	< 10			10	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Hexachlorobutadiene	mg/kg	< 0.1			0.1	Pass	
Methyl-tert-Butyl Ether	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.1			0.1	Pass	
Perchloroethene (PCE)	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Trichloroethylene(TCE)	mg/kg	< 0.1			0.1	Pass	
Vinyl Chloride	mg/kg	< 0.2			0.2	Pass	
Xylenes (Total)	mg/kg	< 0.2			0.2	Pass	
1.1-Dichloroethane	mg/kg	< 0.2			0.2	Pass	
1.2-Dichloroethane	mg/kg	< 0.1			0.1	Pass	
1.1-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.2			0.2	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	
Chromium	mg/kg	< 1			1	Pass	
Copper	mg/kg	< 1			1	Pass	
Lead	mg/kg	< 1			1	Pass	
Mercury	mg/kg	< 0.02			0.02	Pass	
Nickel	mg/kg	< 1			1	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
VOCs in Soil by GCMS							
Benzene	mg/kg	< 0.1			0.1	Pass	
Carbon tetrachloride	mg/kg	< 0.1			0.1	Pass	
Chlorobenzene	mg/kg	< 0.1			0.1	Pass	
DCM	mg/kg	< 10			10	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Hexachlorobutadiene	mg/kg	< 0.1			0.1	Pass	
Methyl-tert-Butyl Ether	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.1			0.1	Pass	
Perchloroethene (PCE)	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Trichloroethylene(TCE)	mg/kg	< 0.1			0.1	Pass	
Vinyl Chloride	mg/kg	< 0.2			0.2	Pass	
Xylenes (Total)	mg/kg	< 0.2			0.2	Pass	
1.1-Dichloroethane	mg/kg	< 0.2			0.2	Pass	
1.2-Dichloroethane	mg/kg	< 0.1			0.1	Pass	
1.1-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.2			0.2	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Metals M8							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.1			0.1	Pass	
Chromium	mg/kg	< 1			1	Pass	
Copper	mg/kg	< 1			1	Pass	
Lead	mg/kg	< 1			1	Pass	
Mercury	mg/kg	< 0.02			0.02	Pass	
Nickel	mg/kg	< 1			1	Pass	
Zinc	mg/kg	< 5			5	Pass	
Method Blank							
VOCs in Soil by GCMS							
Benzene	mg/kg	< 0.1			0.1	Pass	
Carbon tetrachloride	mg/kg	< 0.1			0.1	Pass	
Chlorobenzene	mg/kg	< 0.1			0.1	Pass	
DCM	mg/kg	< 10			10	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
Hexachlorobutadiene	mg/kg	< 0.1			0.1	Pass	
Methyl-tert-Butyl Ether	mg/kg	< 0.1			0.1	Pass	
Styrene	mg/kg	< 0.1			0.1	Pass	
Perchloroethene (PCE)	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Trichloroethylene(TCE)	mg/kg	< 0.1			0.1	Pass	
Vinyl Chloride	mg/kg	< 0.2			0.2	Pass	
Xylenes (Total)	mg/kg	< 0.2			0.2	Pass	
1.1-Dichloroethane	mg/kg	< 0.2			0.2	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2-Dichloroethane	mg/kg	< 0.1			0.1	Pass	
1.1-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.1			0.1	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.2			0.2	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.2			0.2	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.1			0.1	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.1			0.1	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	107			70-130	Pass	
TRH C10-C14	%	101			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	110			70-130	Pass	
m&p-Xylenes	%	110			70-130	Pass	
o-Xylene	%	100			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	98			70-130	Pass	
TRH C6-C10	%	102			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	112			70-130	Pass	
Acenaphthylene	%	111			70-130	Pass	
Anthracene	%	107			70-130	Pass	
Benz(a)anthracene	%	107			70-130	Pass	
Benzo(a)pyrene	%	119			70-130	Pass	
Benzo(b&j)fluoranthene	%	110			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	116			70-130	Pass	
Chrysene	%	109			70-130	Pass	
Dibenz(a.h)anthracene	%	119			70-130	Pass	
Fluoranthene	%	122			70-130	Pass	
Fluorene	%	117			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	114			70-130	Pass	
Naphthalene	%	112			70-130	Pass	
Phenanthrene	%	106			70-130	Pass	
Pyrene	%	107			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	101			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	%	111			25-140	Pass	
2.4-Dimethylphenol	%	91			25-140	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4.6-Trichlorophenol	%	88			25-140	Pass	
4-Nitrophenol	%	83			25-140	Pass	
Pentachlorophenol	%	117			25-140	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	103			70-130	Pass	
Acenaphthylene	%	102			70-130	Pass	
Benz(a)anthracene	%	114			70-130	Pass	
Benzo(a)pyrene	%	89			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Chrysene	%	100			70-130	Pass	
Fluoranthene	%	88			70-130	Pass	
Fluorene	%	88			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
Phenanthrene	%	80			70-130	Pass	
Pyrene	%	100			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Chlorophenol	%	98			25-140	Pass	
2-Methylphenol (o-Cresol)	%	106			25-140	Pass	
2-Nitrophenol	%	127			25-140	Pass	
2.4-Dichlorophenol	%	100			25-140	Pass	
2.4.5-Trichlorophenol	%	84			25-140	Pass	
2.6-Dichlorophenol	%	77			25-140	Pass	
2.4-Dinitrotoluene	%	126			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	103			25-140	Pass	
4-Chloro-3-methylphenol	%	99			25-140	Pass	
Phenol	%	94			25-140	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	%	90			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	90			70-130	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	96			80-120	Pass	
Cadmium	%	108			80-120	Pass	
Chromium	%	106			80-120	Pass	
Copper	%	106			80-120	Pass	
Lead	%	100			80-120	Pass	
Mercury	%	105			80-120	Pass	
Nickel	%	107			80-120	Pass	
Zinc	%	108			80-120	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	98			80-120	Pass	
Cadmium	%	105			80-120	Pass	
Chromium	%	96			80-120	Pass	
Copper	%	94			80-120	Pass	
Lead	%	94			80-120	Pass	
Mercury	%	105			80-120	Pass	
Nickel	%	94			80-120	Pass	
Zinc	%	98			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
BTEX							
Benzene	%	95			70-130	Pass	
Toluene	%	98			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	102			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	99			70-130	Pass	
1.2-Dichlorobenzene	%	95			70-130	Pass	
1.2-Dichloroethane	%	97			70-130	Pass	
Trichloroethene	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	106			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	91			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	77			70-130	Pass	
Toluene	%	80			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
m&p-Xylenes	%	95			70-130	Pass	
o-Xylene	%	88			70-130	Pass	
Xylenes - Total*	%	93			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	78			70-130	Pass	
TRH C6-C10	%	88			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	%	115			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	123			70-130	Pass	
Acenaphthylene	%	122			70-130	Pass	
Anthracene	%	78			70-130	Pass	
Benz(a)anthracene	%	107			70-130	Pass	
Benzo(a)pyrene	%	119			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	116			70-130	Pass	
Chrysene	%	120			70-130	Pass	
Dibenz(a.h)anthracene	%	119			70-130	Pass	
Fluoranthene	%	105			70-130	Pass	
Fluorene	%	105			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	114			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
Phenanthrene	%	96			70-130	Pass	
Pyrene	%	120			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	111			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Chlorophenol	%	117			25-140	Pass	
2-Methylphenol (o-Cresol)	%	128			25-140	Pass	
2.4-Dichlorophenol	%	120			25-140	Pass	
2.6-Dichlorophenol	%	92			25-140	Pass	
2.4-Dinitrotoluene	%	126			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	123			25-140	Pass	
4-Chloro-3-methylphenol	%	99			25-140	Pass	
Phenol	%	113			25-140	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	95			70-130	Pass	
Toluene	%	98			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	102			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	99			70-130	Pass	
1.2-Dichlorobenzene	%	95			70-130	Pass	
1.2-Dichloroethane	%	97			70-130	Pass	
Trichloroethene	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	106			70-130	Pass	
LCS - % Recovery							
VOCs in Soil by GCMS							
Benzene	%	95			60-120	Pass	
Ethylbenzene	%	95			60-120	Pass	
Toluene	%	98			60-120	Pass	
Trichloroethylene(TCE)	%	101			60-120	Pass	
Xylenes (Total)	%	106			60-120	Pass	
1.2-Dichloroethane	%	97			60-120	Pass	
1.1-Dichloroethene	%	99			60-120	Pass	
1.2-Dichlorobenzene	%	95			60-120	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	93			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	103			70-130	Pass	
o-Xylene	%	97			70-130	Pass	
Xylenes - Total*	%	101			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	97			70-130	Pass	
1.2-Dichlorobenzene	%	98			70-130	Pass	
1.2-Dichloroethane	%	97			70-130	Pass	
Trichloroethene	%	100			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	100			70-130	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	95			80-120	Pass	
Cadmium	%	104			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	105			80-120	Pass	
Lead	%	102			80-120	Pass	
Mercury	%	111			80-120	Pass	
Nickel	%	105			80-120	Pass	
Zinc	%	107			80-120	Pass	
LCS - % Recovery							
VOCs in Soil by GCMS							
Benzene	%	99			60-120	Pass	
Ethylbenzene	%	101			60-120	Pass	
Toluene	%	93			60-120	Pass	
Trichloroethylene(TCE)	%	100			60-120	Pass	
Xylenes (Total)	%	101			60-120	Pass	
1.2-Dichloroethane	%	97			60-120	Pass	
1.1-Dichloroethene	%	97			60-120	Pass	
1.2-Dichlorobenzene	%	98			60-120	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	97			80-120	Pass	
Cadmium	%	101			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	97			80-120	Pass	
Lead	%	95			80-120	Pass	
Mercury	%	104			80-120	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	102			80-120	Pass	
LCS - % Recovery							
VOCs in Soil by GCMS							
Benzene	%	102			60-120	Pass	
Ethylbenzene	%	101			60-120	Pass	
Toluene	%	100			60-120	Pass	
Trichloroethylene(TCE)	%	94			60-120	Pass	
Xylenes (Total)	%	102			60-120	Pass	
1.2-Dichloroethane	%	96			60-120	Pass	
1.1-Dichloroethene	%	108			60-120	Pass	
1.2-Dichlorobenzene	%	96			60-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Methyl-4.6-dinitrophenol	L25-Ap0070013	NCP	%	106			30-130	Pass	
2.4-Dimethylphenol	L25-Ap0070013	NCP	%	97			30-130	Pass	
2.4.6-Trichlorophenol	L25-Ap0070013	NCP	%	92			30-130	Pass	
2.6-Dichlorophenol	L25-Ap0070013	NCP	%	94			30-130	Pass	
4-Nitrophenol	L25-Ap0070013	NCP	%	79			30-130	Pass	
Pentachlorophenol	L25-Ap0070013	NCP	%	93			30-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	L25-My0012121	CP	%	107			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	L25-My0012121	CP	%	94			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	L25-My0012121	CP	%	99			70-130	Pass	
Toluene	L25-My0012121	CP	%	97			70-130	Pass	
Ethylbenzene	L25-My0012121	CP	%	112			70-130	Pass	
m&p-Xylenes	L25-My0012121	CP	%	112			70-130	Pass	
o-Xylene	L25-My0012121	CP	%	102			70-130	Pass	
Xylenes - Total*	L25-My0012121	CP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-My0012121	CP	%	95			70-130	Pass	
TRH C6-C10	L25-My0012121	CP	%	104			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	L25-My0012121	CP	%	111			70-130	Pass	
Acenaphthylene	L25-My0012121	CP	%	105			70-130	Pass	
Anthracene	L25-My0012121	CP	%	107			70-130	Pass	
Benz(a)anthracene	L25-My0012121	CP	%	107			70-130	Pass	
Benzo(a)pyrene	L25-My0012121	CP	%	91			70-130	Pass	
Benzo(b&j)fluoranthene	L25-My0012121	CP	%	93			70-130	Pass	
Benzo(g.h.i)perylene	L25-My0012121	CP	%	97			70-130	Pass	
Benzo(k)fluoranthene	L25-My0012121	CP	%	91			70-130	Pass	
Chrysene	L25-My0012121	CP	%	121			70-130	Pass	
Dibenz(a.h)anthracene	L25-My0012121	CP	%	95			70-130	Pass	
Fluoranthene	L25-My0012121	CP	%	98			70-130	Pass	
Fluorene	L25-My0012121	CP	%	93			70-130	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012121	CP	%	102			70-130	Pass	
Naphthalene	L25-My0012121	CP	%	97			70-130	Pass	
Phenanthrene	L25-My0012121	CP	%	125			70-130	Pass	
Pyrene	L25-My0012121	CP	%	105			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	L25-My0012121	CP	%	90			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Chlorophenol	L25-My0012121	CP	%	98			30-130	Pass	
2-Methylphenol (o-Cresol)	L25-My0012121	CP	%	105			30-130	Pass	
2-Nitrophenol	L25-My0012121	CP	%	99			30-130	Pass	
2.4-Dichlorophenol	L25-My0012121	CP	%	105			30-130	Pass	
2.4.5-Trichlorophenol	L25-My0012121	CP	%	88			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012121	CP	%	92			30-130	Pass	
4-Chloro-3-methylphenol	L25-My0012121	CP	%	82			30-130	Pass	
Phenol	L25-My0012121	CP	%	91			30-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-My0012121	CP	%	92			75-125	Pass	
Cadmium	L25-My0012121	CP	%	110			75-125	Pass	
Chromium	L25-My0012121	CP	%	106			75-125	Pass	
Copper	L25-My0012121	CP	%	109			75-125	Pass	
Mercury	L25-My0012121	CP	%	110			75-125	Pass	
Nickel	L25-My0012121	CP	%	109			75-125	Pass	
Zinc	L25-My0012121	CP	%	88			75-125	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
BTEX				Result 1					
Benzene	L25-My0012123	CP	%	93			70-130	Pass	
Toluene	L25-My0012123	CP	%	91			70-130	Pass	
Ethylbenzene	L25-My0012123	CP	%	91			70-130	Pass	
m&p-Xylenes	L25-My0012123	CP	%	102			70-130	Pass	
o-Xylene	L25-My0012123	CP	%	95			70-130	Pass	
Xylenes - Total*	L25-My0012123	CP	%	100			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	L25-My0012123	CP	%	91			70-130	Pass	
1.2-Dichlorobenzene	L25-My0012123	CP	%	91			70-130	Pass	
1.2-Dichloroethane	L25-My0012123	CP	%	98			70-130	Pass	
Trichloroethene	L25-My0012123	CP	%	95			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-My0012123	CP	%	96			70-130	Pass	
Spike - % Recovery									
VOCs in Soil by GCMS				Result 1					
Benzene	L25-My0012123	CP	%	93			60-120	Pass	
Ethylbenzene	L25-My0012123	CP	%	91			60-120	Pass	
Toluene	L25-My0012123	CP	%	91			60-120	Pass	
Trichloroethylene(TCE)	L25-My0012123	CP	%	95			60-120	Pass	
Xylenes (Total)	L25-My0012123	CP	%	100			60-120	Pass	
1.2-Dichloroethane	L25-My0012123	CP	%	98			60-120	Pass	
1.1-Dichloroethene	L25-My0012123	CP	%	91			60-120	Pass	
1.2-Dichlorobenzene	L25-My0012123	CP	%	91			60-120	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	L25-My0012126	CP	%	99			70-130	Pass	
Toluene	L25-My0012126	CP	%	90			70-130	Pass	
Ethylbenzene	L25-My0012126	CP	%	101			70-130	Pass	
m&p-Xylenes	L25-My0012126	CP	%	103			70-130	Pass	
o-Xylene	L25-My0012126	CP	%	97			70-130	Pass	
Xylenes - Total*	L25-My0012126	CP	%	101			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	L25-My0012126	CP	%	99			70-130	Pass	
1.2-Dichlorobenzene	L25-My0012126	CP	%	103			70-130	Pass	
1.2-Dichloroethane	L25-My0012126	CP	%	103			70-130	Pass	
Trichloroethene	L25-My0012126	CP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-My0012126	CP	%	97			70-130	Pass	
Spike - % Recovery									
VOCs in Soil by GCMS				Result 1					
Benzene	L25-My0012126	CP	%	99			60-120	Pass	
Ethylbenzene	L25-My0012126	CP	%	101			60-120	Pass	
Toluene	L25-My0012126	CP	%	90			60-120	Pass	
Trichloroethylene(TCE)	L25-My0012126	CP	%	100			60-120	Pass	
Xylenes (Total)	L25-My0012126	CP	%	101			60-120	Pass	
1.2-Dichloroethane	L25-My0012126	CP	%	103			60-120	Pass	
1.1-Dichloroethene	L25-My0012126	CP	%	99			60-120	Pass	
1.2-Dichlorobenzene	L25-My0012126	CP	%	103			60-120	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Metals M8				Result 1					
Arsenic	L25-My0012130	CP	%	87			75-125	Pass	
Cadmium	L25-My0012130	CP	%	102			75-125	Pass	
Chromium	L25-My0012130	CP	%	107			75-125	Pass	
Copper	L25-My0012130	CP	%	103			75-125	Pass	
Lead	L25-My0012130	CP	%	101			75-125	Pass	
Mercury	L25-My0012130	CP	%	102			75-125	Pass	
Nickel	L25-My0012130	CP	%	103			75-125	Pass	
Zinc	L25-My0012130	CP	%	106			75-125	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-My0012131	CP	%	124			75-125	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-My0012140	CP	%	115			75-125	Pass	
Cadmium	L25-My0012140	CP	%	114			75-125	Pass	
Chromium	L25-My0012140	CP	%	122			75-125	Pass	
Copper	L25-My0012140	CP	%	121			75-125	Pass	
Lead	L25-My0012140	CP	%	120			75-125	Pass	
Nickel	L25-My0012140	CP	%	122			75-125	Pass	
Zinc	L25-My0012140	CP	%	123			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	L25-My0012141	CP	%	107			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	L25-My0012141	CP	%	123			70-130	Pass	
Benz(a)anthracene	L25-My0012141	CP	%	80			70-130	Pass	
Benzo(a)pyrene	L25-My0012141	CP	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	L25-My0012141	CP	%	98			70-130	Pass	
Benzo(g.h.i)perylene	L25-My0012141	CP	%	97			70-130	Pass	
Benzo(k)fluoranthene	L25-My0012141	CP	%	91			70-130	Pass	
Chrysene	L25-My0012141	CP	%	113			70-130	Pass	
Dibenz(a.h)anthracene	L25-My0012141	CP	%	95			70-130	Pass	
Fluoranthene	L25-My0012141	CP	%	111			70-130	Pass	
Fluorene	L25-My0012141	CP	%	109			70-130	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012141	CP	%	102			70-130	Pass	
Naphthalene	L25-My0012141	CP	%	112			70-130	Pass	
Phenanthrene	L25-My0012141	CP	%	100			70-130	Pass	
Pyrene	L25-My0012141	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	L25-My0012141	CP	%	103			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Chlorophenol	L25-My0012141	CP	%	110			30-130	Pass	
2.4-Dichlorophenol	L25-My0012141	CP	%	122			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012141	CP	%	115			30-130	Pass	
4-Chloro-3-methylphenol	L25-My0012141	CP	%	85			30-130	Pass	
Phenol	L25-My0012141	CP	%	110			30-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-My0012141	CP	%	92			75-125	Pass	
Cadmium	L25-My0012141	CP	%	107			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chromium	L25-My0012141	CP	%	86			75-125	Pass	
Copper	L25-My0012141	CP	%	92			75-125	Pass	
Lead	L25-My0012141	CP	%	91			75-125	Pass	
Mercury	L25-My0012141	CP	%	108			75-125	Pass	
Nickel	L25-My0012141	CP	%	101			75-125	Pass	
Zinc	L25-My0012141	CP	%	100			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	L25-My0012151	CP	%	103			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Toluene	L25-My0012151	CP	%	96			70-130	Pass	
Ethylbenzene	L25-My0012151	CP	%	114			70-130	Pass	
m&p-Xylenes	L25-My0012151	CP	%	112			70-130	Pass	
o-Xylene	L25-My0012151	CP	%	103			70-130	Pass	
Xylenes - Total*	L25-My0012151	CP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-My0012151	CP	%	82			70-130	Pass	
TRH C6-C10	L25-My0012151	CP	%	99			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-My0012151	CP	%	119			75-125	Pass	
Chromium	L25-My0012151	CP	%	118			75-125	Pass	
Spike - % Recovery									
VOCs in Soil by GCMS				Result 1					
Benzene	L25-My0027466	NCP	%	103			60-120	Pass	
Ethylbenzene	L25-My0027466	NCP	%	97			60-120	Pass	
Toluene	L25-My0027466	NCP	%	93			60-120	Pass	
Trichloroethylene(TCE)	L25-My0027466	NCP	%	94			60-120	Pass	
Xylenes (Total)	L25-My0027466	NCP	%	100			60-120	Pass	
1.2-Dichloroethane	L25-My0027466	NCP	%	101			60-120	Pass	
1.1-Dichloroethene	L25-My0027466	NCP	%	91			60-120	Pass	
1.2-Dichlorobenzene	L25-My0027466	NCP	%	94			60-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	L25-My0012120	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L25-My0012120	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L25-My0012120	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Indeno(1.2.3-cd)pyrene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L25-My0012120	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L25-My0012120	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L25-My0012120	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	L25-My0012120	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	L25-My0012120	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	L25-My0012120	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	L25-My0012120	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dichlorophenol	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	L25-My0012120	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4.5-Trichlorophenol	L25-My0012120	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	L25-My0012120	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	L25-Ap0070012	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	L25-My0012120	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012120	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	L25-My0012120	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Nitrophenol	L25-My0012120	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Aniline	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	L25-My0012120	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Phenol	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	L25-My0012120	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	L25-My0012120	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	L25-My0012120	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	L25-My0012120	CP	mg/kg	4.3	4.3	1.0	30%	Pass	
Copper	L25-My0012120	CP	mg/kg	5.1	5.0	3.0	30%	Pass	
Lead	L25-My0012120	CP	mg/kg	39	38	3.0	30%	Pass	
Mercury	L25-My0012120	CP	mg/kg	0.02	< 0.02	16	30%	Pass	
Nickel	L25-My0012120	CP	mg/kg	1.2	1.1	4.0	30%	Pass	
Zinc	L25-My0012120	CP	mg/kg	26	25	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-My0012128	CP	%	2.8	2.2	24	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	L25-My0012130	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L25-My0012130	CP	mg/kg	210	200	5.0	30%	Pass	
TRH C29-C36	L25-My0012130	CP	mg/kg	250	120	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L25-My0012130	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L25-My0012130	CP	mg/kg	390	280	<1	30%	Pass	
TRH >C34-C40	L25-My0012130	CP	mg/kg	150	< 100	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	L25-My0012130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	L25-My0012130	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	L25-My0012130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	L25-My0012130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dichlorophenol	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	L25-My0012130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4.5-Trichlorophenol	L25-My0012130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	L25-My0012130	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2.4-Dinitrotoluene	L25-My0012130	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2.6-Dinitrotoluene	L25-My0012130	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012130	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	L25-My0012130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Nitrophenol	L25-My0012130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	L25-My0012130	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Phenol	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	L25-My0012130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	L25-My0012132	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	L25-My0012132	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Isopropyl benzene (Cumene)	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	L25-My0012132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	L25-My0012132	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
Benzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Carbon tetrachloride	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
DCM	L25-My0012132	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Ethylbenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Perchloroethene (PCE)	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Trichloroethylene(TCE)	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vinyl Chloride	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Xylenes (Total)	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1-Dichloroethane	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	L25-My0012133	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	L25-My0012133	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.1-Dichloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1-Trichloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.1.2-Tetrachloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2-Trichloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.1.2.2-Tetrachloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dibromoethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2-Dichloropropane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.3-Trichloropropane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.2.4-Trimethylbenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3-Dichloropropane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.3.5-Trimethylbenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Propanone (Acetone)	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Allyl chloride	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromobenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Iodomethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.2-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	L25-My0012133	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
TRH C6-C10	L25-My0012133	CP	mg/kg	< 20	< 20	<1	30%	Pass

Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	L25-My0012133	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	L25-My0012133	CP	mg/kg	4.4	4.5	3.0	30%	Pass	
Copper	L25-My0012133	CP	mg/kg	1.4	1.4	<1	30%	Pass	
Lead	L25-My0012133	CP	mg/kg	2.0	2.0	2.0	30%	Pass	
Mercury	L25-My0012133	CP	mg/kg	0.03	0.03	24	30%	Pass	
Nickel	L25-My0012133	CP	mg/kg	1.4	1.4	4.0	30%	Pass	
Zinc	L25-My0012133	CP	mg/kg	7.0	7.4	6.0	30%	Pass	
Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
Benzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Carbon tetrachloride	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
DCM	L25-My0012133	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Ethylbenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Perchloroethene (PCE)	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Trichloroethylene(TCE)	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vinyl Chloride	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Xylenes (Total)	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1-Dichloroethane	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012133	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012133	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-My0012136	CP	%	3.3	3.3	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-My0012138	CP	%	7.4	7.3	2.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	L25-My0012140	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	L25-My0012140	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L25-My0012140	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L25-My0012140	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
o-Xylene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	L25-My0012140	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	L25-My0012140	CP	mg/kg	< 20	< 20	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L25-My0012140	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L25-My0012140	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L25-My0012140	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	L25-My0012140	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	L25-My0012140	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	L25-My0012140	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dichlorophenol	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	L25-My0012140	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4.5-Trichlorophenol	L25-My0012140	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	L25-My0012140	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dinitrotoluene	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2.6-Dinitrotoluene	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012140	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
4-Aminobiphenyl	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	L25-My0012140	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Nitrophenol	L25-My0012140	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	L25-My0012140	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Phenol	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	L25-My0012140	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
Benzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Carbon tetrachloride	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
DCM	L25-My0012140	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Ethylbenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Perchloroethene (PCE)	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Trichloroethylene(TCE)	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vinyl Chloride	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Xylenes (Total)	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1-Dichloroethane	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012140	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012140	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	L25-My0012147	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	L25-My0012147	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.4-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	L25-My0012147	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	L25-My0012147	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
Benzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Carbon tetrachloride	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
DCM	L25-My0012147	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Ethylbenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Perchloroethene (PCE)	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Trichloroethylene(TCE)	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vinyl Chloride	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Xylenes (Total)	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1-Dichloroethane	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.2-Dichloroethane	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
trans-1.2-Dichloroethene	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0012147	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012147	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	L25-My0012148	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	L25-My0012148	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	L25-My0012148	CP	mg/kg	1.0	< 1	20	30%	Pass	
Copper	L25-My0012148	CP	mg/kg	1.4	1.1	19	30%	Pass	
Lead	L25-My0012148	CP	mg/kg	2.0	1.8	11	30%	Pass	
Mercury	L25-My0012148	CP	mg/kg	< 0.02	< 0.02	<1	30%	Pass	
Nickel	L25-My0012148	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Zinc	L25-My0012148	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-My0012148	CP	%	3.7	4.5	20	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	L25-My0012162	CP	%	6.3	6.2	2.0	30%	Pass	
Duplicate									
VOCs in Soil by GCMS				Result 1	Result 2	RPD			
Benzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Carbon tetrachloride	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
DCM	L25-My0027465	NCP	mg/kg	< 10	< 10	<1	30%	Pass	
Ethylbenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Hexachlorobutadiene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Methyl-tert-Butyl Ether	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Styrene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Perchloroethene (PCE)	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Trichloroethylene(TCE)	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Vinyl Chloride	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Xylenes (Total)	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1-Dichloroethane	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.2-Dichloroethane	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1-Dichloroethene	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
cis-1.2-Dichloroethene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
trans-1.2-Dichloroethene	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1-Trichloroethane	L25-My0027465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0027465	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	L25-My0012166	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	L25-My0012166	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	L25-My0012166	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L25-My0012166	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	L25-My0012166	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	L25-My0012166	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	L25-My0012166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	L25-My0012166	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	L25-My0012166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dichlorophenol	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	L25-My0012166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4.5-Trichlorophenol	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2.4-Dinitrotoluene	L25-My0012166	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2.6-Dinitrotoluene	L25-My0012166	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0012166	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Nitrophenol	L25-My0012166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
Phenol	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	L25-My0012166	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	L25-My0012166	CP	mg/kg	2.2	2.3	4.0	30%	Pass	
Cadmium	L25-My0012166	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Chromium	L25-My0012166	CP	mg/kg	11	11	4.0	30%	Pass	
Copper	L25-My0012166	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Lead	L25-My0012166	CP	mg/kg	3.7	3.6	3.0	30%	Pass	
Mercury	L25-My0012166	CP	mg/kg	0.03	0.03	19	30%	Pass	
Zinc	L25-My0012166	CP	mg/kg	< 5	< 5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q05	The matrix spike concentration is less than five times the background concentration in the sample - therefore the spike recovery cannot be determined
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Natalie Hill	Analytical Services Manager
Sean Sangster	Senior Analyst-Metal
Douglas Todd	Senior Analyst-Sample Properties
Rhys Thomas	Senior Analyst-Asbestos
Patrick Patfield	Senior Analyst-Volatile
Douglas Todd	Senior Analyst-Organic
Patrick Patfield	Senior Analyst-Organic
Douglas Todd	Senior Analyst-Volatile

Kim Rodgers
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

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GHD Pty Ltd WA
999 Hay Street Perth
Perth
WA 6004

NATA Accredited
Accreditation Number 2377
Site Number 2370 & 2554

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Zak Langtry**

Report **1215966-W**
Project name
Project ID 12658388
Received Date May 05, 2025

Client Sample ID			**GHD_QC06**	**GHD_QC07**	**GHD_QC08**	**GHD_QC09**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**L25-My0012156**	**L25-My0012157**	**L25-My0012158**	**L25-My0012159**
Date Sampled			**May 01, 2025**	**May 02, 2025**	**May 02, 2025**	**May 02, 2025**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C15-C28	0.04	mg/L	< 0.04	< 0.04	< 0.04	< 0.04
TRH C29-C36	0.04	mg/L	< 0.04	< 0.04	< 0.04	< 0.04
TRH C10-C36 (Total)	0.04	mg/L	< 0.04	< 0.04	< 0.04	< 0.04
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	78	81	81	81
Volatile Organics						
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Propanone (Acetone)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			GHD_QC06	GHD_QC07	GHD_QC08	GHD_QC09
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-My0012156	L25-My0012157	L25-My0012158	L25-My0012159
Date Sampled			May 01, 2025	May 02, 2025	May 02, 2025	May 02, 2025
Test/Reference	LOR	Unit				
Volatile Organics						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Methylene Chloride	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Vinyl chloride	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total MAH*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	78	81	81	81
Toluene-d8 (surr.)	1	%	99	100	101	102
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
TRH >C10-C16 less Naphthalene (F2)*[N01]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			GHD_QC06	GHD_QC07	GHD_QC08	GHD_QC09
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-My0012156	L25-My0012157	L25-My0012158	L25-My0012159
Date Sampled			May 01, 2025	May 02, 2025	May 02, 2025	May 02, 2025
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	99	143	106	122
p-Terphenyl-d14 (surr.)	1	%	114	150	120	141
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C16-C34	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C34-C40	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C40 (total)*	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Semivolatile Organics						
Aldrin and Dieldrin (Total)*	0.0001	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Benzo(a)pyrene TEQ (lower bound) *	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
DDT + DDE + DDD (Total)*	0.0001	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Methyl-4.6-dinitrophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1-Chloronaphthalene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1-Naphthylamine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2.3-Trichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2.3.4-Tetrachlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2.3.5-Tetrachlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.2.4.5-Tetrachlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.3-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.3.5-Trichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
1.4-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Chloronaphthalene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Chlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	99	143	106	122
2-Methylnaphthalene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Methylphenol (o-Cresol)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Naphthylamine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Nitroaniline	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2-Nitrophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Picoline	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2.3.4.6-Tetrachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.4-Dimethylphenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.4-Dinitrophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.4.5-Trichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.4.6-Tribromophenol (surr.)	1	%	114	150	120	141

Client Sample ID			GHD_QC06	GHD_QC07	GHD_QC08	GHD_QC09
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-My0012156	L25-My0012157	L25-My0012158	L25-My0012159
Date Sampled			May 01, 2025	May 02, 2025	May 02, 2025	May 02, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
2.4.6-Trichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.6-Dichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2.4-Dinitrotoluene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2.6-Dinitrotoluene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2.4-Dinitrotoluene + 2.6-Dinitrotoluene*	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
3&4-Methylphenol (m&p-Cresol)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
3-Methylcholanthrene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
3.3'-Dichlorobenzidine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Aminobiphenyl	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Bromophenyl phenyl ether	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Chloro-3-methylphenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Chlorophenyl phenyl ether	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4-Nitrophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4.4'-DDD	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4.4'-DDE	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
4.4'-DDT	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
7.12-Dimethylbenz(a)anthracene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
a-HCH	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acetophenone	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Aldrin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Aniline	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
b-HCH	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzyl chloride	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Bis(2-chloroethoxy)methane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Bis(2-chloroisopropyl)ether	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Bis(2-ethylhexyl)phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Butyl benzyl phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
d-HCH	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-butyl phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Di-n-octyl phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a.j)acridine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dibenzofuran	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dieldrin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Diethyl phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dimethyl phthalate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dimethylaminoazobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Diphenylamine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Endosulfan I	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Endosulfan II	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005

Client Sample ID			GHD_QC06	GHD_QC07	GHD_QC08	GHD_QC09
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			L25-My0012156	L25-My0012157	L25-My0012158	L25-My0012159
Date Sampled			May 01, 2025	May 02, 2025	May 02, 2025	May 02, 2025
Test/Reference	LOR	Unit				
Semivolatile Organics						
Endosulfan sulphate	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Endrin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Endrin aldehyde	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Endrin ketone	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
g-HCH (Lindane)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor epoxide	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Hexachlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Hexachlorobutadiene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Hexachlorocyclopentadiene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Hexachloroethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Methoxychlor	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodibutylamine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosodipropylamine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
N-Nitrosopiperidine	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Nitrobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Nitrobenzene-d5 (surr.)	1	%	107	149	107	124
Pentachlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Pentachloronitrobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Pentachlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenol-d6 (surr.)	1	%	61	98	112	74
Pronamide	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trifluralin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Metals M8						
Arsenic	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Zinc	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Welshpool	May 06, 2025	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Welshpool	May 06, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	May 06, 2025	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Welshpool	May 06, 2025	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Welshpool	May 06, 2025	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Volatile Organics	Welshpool	May 09, 2025	7 Days
- Method: ARL 132 - Purgeable Organics in Water by GCMS			
Semivolatile Organics	Welshpool	May 09, 2025	7 Days
- Method: LTM-ORG-2190 SVOC in Water & Soil by GC-MS			
Metals M8	Welshpool	May 06, 2025	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

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Received: May 5, 2025 2:55 PM
Due: May 12, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

Eurofins Analytical Services Manager : Natalie Hill

Sample Detail						HOLD	Metals M8	Moisture Set	Eurofins Suite B4	Eurofins Suite SVV: SVOC/VOC	Asbestos in Soils (ASC NEPM 2013)	VOCs in Soil by GCMS
Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	GHD_APPLECROSS_HA01_0.1	May 01, 2025		Soil	L25-My0012120		X	X	X	X		
2	GHD_APPLECROSS_HA01_0.3	May 01, 2025		Soil	L25-My0012121		X	X	X	X		
3	GHD_APPLECROSS_HA01_0.6	May 01, 2025		Soil	L25-My0012122		X	X	X	X		
4	GHD_APPLECROSS_HA01_1.25	May 01, 2025		Soil	L25-My0012123		X	X	X	X		
5	GHD_APPLECROSS_HA02_0.1	May 01, 2025		Soil	L25-My0012124		X	X	X	X		
6	GHD_APPLECROSS_HA02_	May 01, 2025		Soil	L25-My0012125		X	X	X	X		

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Project Name:
Project ID: 12658388

Order No.: 12658388
Report #: 1215966
Phone: 08 6222 8222
Fax: 08 9429 6555

Received: May 5, 2025 2:55 PM
Due: May 12, 2025
Priority: 5 Day
Contact Name: - ALL GHD lab reports

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
	0.4											
7	GHD_APPLECROSS_HA02_0.6	May 01, 2025		Soil	L25-My0012126		X	X	X	X		
8	GHD_APPLECROSS_HA02_0.8	May 01, 2025		Soil	L25-My0012127		X	X	X	X		
9	GHD_ELLAM_ST_HA01_0.0	May 01, 2025		Soil	L25-My0012128		X	X	X	X		
10	GHD_ELLAM_ST_HA01_0.2	May 01, 2025		Soil	L25-My0012129		X	X	X	X		
11	GHD_ELLAM_ST_HA01_0.4	May 01, 2025		Soil	L25-My0012130		X	X	X	X	X	
12	GHD_ELLAM_ST_HA02_0.1	May 01, 2025		Soil	L25-My0012131		X	X	X	X		
13	GHD_ELLAM_ST_HA02_0.3	May 01, 2025		Soil	L25-My0012132		X	X	X	X		
14	GHD_ELLAM_	May 01, 2025		Soil	L25-My0012133		X	X	X	X		

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
14	GHD_ELLAM_ST_HA02_0.5	May 01, 2025		Soil	L25-My0012133							
15	GHD_ELLAM_ST_HA03_0.1	May 01, 2025		Soil	L25-My0012134		X	X	X	X		
16	GHD_ELLAM_ST_HA03_0.4	May 01, 2025		Soil	L25-My0012135		X	X	X	X		
17	GHD_ELLAM_ST_HA03_0.5	May 01, 2025		Soil	L25-My0012136		X	X	X	X		
18	GHD_ELLAM_ST_HA03_0.8	May 01, 2025		Soil	L25-My0012137		X	X	X	X		
19	GHD_MATBAY1_HA01_0.1	May 02, 2025		Soil	L25-My0012138		X	X	X	X		
20	GHD_MATBAY1_HA01_0.2	May 02, 2025		Soil	L25-My0012139		X	X	X	X		
21	GHD_MATBAY1_HA01_0.8	May 02, 2025		Soil	L25-My0012140		X	X	X	X		
22	GHD_MATBAY1_HA02_0.1	May 02, 2025		Soil	L25-My0012141		X	X	X	X		

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
23	GHD_MATBAY1_HA02_0.3	May 02, 2025		Soil	L25-My0012142		X	X	X	X		
24	GHD_MATBAY1_HA02_0.7	May 02, 2025		Soil	L25-My0012143		X	X	X	X		
25	GHD_MATBAY1_HA03_0.1	May 02, 2025		Soil	L25-My0012144		X	X	X	X		
26	GHD_MATBAY1_HA03_0.3	May 02, 2025		Soil	L25-My0012145		X	X	X	X		
27	GHD_MATBAY1_HA03_0.6	May 02, 2025		Soil	L25-My0012146		X	X	X	X		
28	GHD_MATBAY2_HA01_0.1	May 02, 2025		Soil	L25-My0012147		X	X	X	X		
29	GHD_MATBAY2_HA01_0.3	May 02, 2025		Soil	L25-My0012148		X	X	X	X		
30	GHD_MATBAY2_HA01_0.5	May 02, 2025		Soil	L25-My0012149		X	X	X	X		
31	GHD_MATBAY2_HA02_0.1	May 02, 2025		Soil	L25-My0012150		X	X	X	X		

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
32	GHD_MATBAY2_HA02_0.3	May 02, 2025		Soil	L25-My0012151		X	X	X	X		
33	GHD_MATBAY2_HA02_0.5	May 02, 2025		Soil	L25-My0012152		X	X	X	X		
34	GHD_MATBAY2_HA03_0.1	May 02, 2025		Soil	L25-My0012153		X	X	X	X		
35	GHD_MATBAY2_HA03_0.2	May 02, 2025		Soil	L25-My0012154		X	X	X	X		
36	GHD_MATBAY2_HA03_0.5	May 02, 2025		Soil	L25-My0012155		X	X	X	X		
37	GHD_QC06	May 01, 2025		Water	L25-My0012156		X		X	X		
38	GHD_QC07	May 02, 2025		Water	L25-My0012157		X		X	X		
39	GHD_QC08	May 02, 2025		Water	L25-My0012158		X		X	X		
40	GHD_QC09	May 02, 2025		Water	L25-My0012159		X		X	X		
41	GHD_QC10	May 01, 2025		Soil	L25-My0012160		X	X	X	X		
42	GHD_QC11	May 01, 2025		Soil	L25-My0012161		X	X	X	X		

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Perth Laboratory - NATA # 2377 Site # 2370 & 2554						X	X	X	X	X	X	X
Melbourne Laboratory - NATA # 1261 Site # 1254										X		
External Laboratory												
43	GHD_QC13	May 05, 2025		Soil	L25-My0012162			X				X
44	GHD_QC12	May 02, 2025		Soil	L25-My0012163	X						
45	GHD_APPLECROSS_HA03_0.1	May 01, 2025		Soil	L25-My0012164		X	X	X	X		
46	GHD_APPLECROSS_HA03_0.2	May 01, 2025		Soil	L25-My0012165		X	X	X	X		
47	GHD_APPLECROSS_HA03_0.5	May 01, 2025		Soil	L25-My0012166		X	X	X	X		
Test Counts						1	45	42	45	45	1	1

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Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.02			0.02	Pass	
TRH C15-C28	mg/L	< 0.04			0.04	Pass	
TRH C29-C36	mg/L	< 0.04			0.04	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.005			0.005	Pass	
2-Propanone (Acetone)	mg/L	< 0.005			0.005	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005			0.005	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.005			0.005	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.005			0.005	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.005			0.005	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dichlorodifluoromethane	mg/L	< 0.005			0.005	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.005			0.005	Pass	
Vinyl chloride	mg/L	< 0.005			0.005	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.001			0.001	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/L	< 0.02			0.02	Pass	
TRH >C16-C34	mg/L	< 0.05			0.05	Pass	
TRH >C34-C40	mg/L	< 0.05			0.05	Pass	
Method Blank							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/L	< 0.001			0.001	Pass	
1-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
1-Naphthylamine	mg/L	< 0.005			0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.4-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3.5-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
2-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
2-Chlorophenol	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Methylnaphthalene	mg/L	< 0.005			0.005	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.001			0.001	Pass	
2-Naphthylamine	mg/L	< 0.005			0.005	Pass	
2-Nitroaniline	mg/L	< 0.005			0.005	Pass	
2-Nitrophenol	mg/L	< 0.001			0.001	Pass	
2-Picoline	mg/L	< 0.005			0.005	Pass	
2.3.4.6-Tetrachlorophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dichlorophenol	mg/L	< 0.001			0.001	Pass	
2.4-Dimethylphenol	mg/L	< 0.001			0.001	Pass	
2.4-Dinitrophenol	mg/L	< 0.001			0.001	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.001			0.001	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.001			0.001	Pass	
2.6-Dichlorophenol	mg/L	< 0.001			0.001	Pass	
2.4-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
2.6-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.001			0.001	Pass	
3-Methylcholanthrene	mg/L	< 0.005			0.005	Pass	
3.3'-Dichlorobenzidine	mg/L	< 0.005			0.005	Pass	
4-Aminobiphenyl	mg/L	< 0.005			0.005	Pass	
4-Bromophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.001			0.001	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Nitrophenol	mg/L	< 0.001			0.001	Pass	
4.4'-DDE	mg/L	< 0.005			0.005	Pass	
4.4'-DDT	mg/L	< 0.005			0.005	Pass	
7.12-Dimethylbenz(a)anthracene	mg/L	< 0.005			0.005	Pass	
a-HCH	mg/L	< 0.005			0.005	Pass	
Acetophenone	mg/L	< 0.005			0.005	Pass	
Aldrin	mg/L	< 0.005			0.005	Pass	
Aniline	mg/L	< 0.005			0.005	Pass	
b-HCH	mg/L	< 0.005			0.005	Pass	
Benzyl chloride	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroethoxy)methane	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroisopropyl)ether	mg/L	< 0.005			0.005	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.005			0.005	Pass	
Butyl benzyl phthalate	mg/L	< 0.005			0.005	Pass	
d-HCH	mg/L	< 0.005			0.005	Pass	
Di-n-butyl phthalate	mg/L	< 0.005			0.005	Pass	
Di-n-octyl phthalate	mg/L	< 0.005			0.005	Pass	
Dibenz(a.j)acridine	mg/L	< 0.005			0.005	Pass	
Dibenzofuran	mg/L	< 0.005			0.005	Pass	
Dieldrin	mg/L	< 0.005			0.005	Pass	
Diethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethylaminoazobenzene	mg/L	< 0.005			0.005	Pass	
Diphenylamine	mg/L	< 0.005			0.005	Pass	
Endosulfan I	mg/L	< 0.005			0.005	Pass	
Endosulfan II	mg/L	< 0.005			0.005	Pass	
Endosulfan sulphate	mg/L	< 0.005			0.005	Pass	
Endrin	mg/L	< 0.005			0.005	Pass	
Endrin aldehyde	mg/L	< 0.005			0.005	Pass	
Endrin ketone	mg/L	< 0.005			0.005	Pass	
g-HCH (Lindane)	mg/L	< 0.005			0.005	Pass	
Heptachlor	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor epoxide	mg/L	< 0.005			0.005	Pass	
Hexachlorobenzene	mg/L	< 0.005			0.005	Pass	
Hexachlorobutadiene	mg/L	< 0.005			0.005	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.005			0.005	Pass	
Hexachloroethane	mg/L	< 0.005			0.005	Pass	
Methoxychlor	mg/L	< 0.005			0.005	Pass	
N-Nitrosodibutylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosodipropylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosopiperidine	mg/L	< 0.005			0.005	Pass	
Nitrobenzene	mg/L	< 0.005			0.005	Pass	
Pentachlorobenzene	mg/L	< 0.005			0.005	Pass	
Pentachloronitrobenzene	mg/L	< 0.005			0.005	Pass	
Pentachlorophenol	mg/L	< 0.001			0.001	Pass	
Phenol	mg/L	< 0.001			0.001	Pass	
Pronamide	mg/L	< 0.005			0.005	Pass	
Trifluralin	mg/L	< 0.005			0.005	Pass	
Method Blank							
Metals M8							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0001			0.0001	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	76			70-130	Pass	
TRH C10-C14	%	96			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	91			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
m&p-Xylenes	%	104			70-130	Pass	
o-Xylene	%	107			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	103			70-130	Pass	
1.1.1-Trichloroethane	%	80			70-130	Pass	
1.2-Dichlorobenzene	%	109			70-130	Pass	
1.2-Dichloroethane	%	95			70-130	Pass	
Trichloroethene	%	98			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	108			70-130	Pass	
TRH C6-C10	%	108			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	118			70-130	Pass	
Acenaphthylene	%	120			70-130	Pass	
Anthracene	%	120			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	%	106			70-130	Pass	
Benzo(a)pyrene	%	122			70-130	Pass	
Benzo(b&j)fluoranthene	%	109			70-130	Pass	
Benzo(g.h.i)perylene	%	97			70-130	Pass	
Benzo(k)fluoranthene	%	123			70-130	Pass	
Chrysene	%	121			70-130	Pass	
Dibenz(a.h)anthracene	%	113			70-130	Pass	
Fluoranthene	%	94			70-130	Pass	
Fluorene	%	122			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	103			70-130	Pass	
Naphthalene	%	121			70-130	Pass	
Phenanthrene	%	119			70-130	Pass	
Pyrene	%	125			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	86			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	%	111			25-140	Pass	
2-Chlorophenol	%	117			25-140	Pass	
2-Methylphenol (o-Cresol)	%	77			25-140	Pass	
2-Nitrophenol	%	96			25-140	Pass	
2.4-Dichlorophenol	%	94			25-140	Pass	
2.4-Dimethylphenol	%	93			25-140	Pass	
2.4.5-Trichlorophenol	%	97			25-140	Pass	
2.4.6-Trichlorophenol	%	99			25-140	Pass	
2.6-Dichlorophenol	%	94			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	123			25-140	Pass	
4-Chloro-3-methylphenol	%	99			25-140	Pass	
4-Nitrophenol	%	83			25-140	Pass	
Pentachlorophenol	%	117			25-140	Pass	
Phenol	%	113			25-140	Pass	
LCS - % Recovery							
Metals M8							
Arsenic	%	107			80-120	Pass	
Cadmium	%	106			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	91			80-120	Pass	
Lead	%	101			80-120	Pass	
Mercury	%	113			80-120	Pass	
Nickel	%	98			80-120	Pass	
Zinc	%	101			80-120	Pass	
LCS - % Recovery							
Semivolatile Organics							
2.4-Dinitrophenol	%	89			25-140	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	L25-My0012156	CP	%	104			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	L25-My0012156	CP	%	116			70-130	Pass	
Anthracene	L25-My0012156	CP	%	105			70-130	Pass	
Benz(a)anthracene	L25-My0012156	CP	%	115			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(a)pyrene	L25-My0012156	CP	%	87			70-130	Pass	
Benzo(b&j)fluoranthene	L25-My0012156	CP	%	89			70-130	Pass	
Benzo(g.h.i)perylene	L25-My0012156	CP	%	82			70-130	Pass	
Benzo(k)fluoranthene	L25-My0012156	CP	%	104			70-130	Pass	
Chrysene	L25-My0012156	CP	%	102			70-130	Pass	
Fluoranthene	L25-My0012156	CP	%	96			70-130	Pass	
Fluorene	L25-My0012156	CP	%	108			70-130	Pass	
Indeno(1.2.3-cd)pyrene	L25-My0012156	CP	%	81			70-130	Pass	
Naphthalene	L25-My0012156	CP	%	96			70-130	Pass	
Phenanthrene	L25-My0012156	CP	%	98			70-130	Pass	
Pyrene	L25-My0012156	CP	%	105			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	L25-My0012156	CP	%	89			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Methyl-4.6-dinitrophenol	L25-My0002586	NCP	%	106			30-130	Pass	
2-Chlorophenol	L25-My0002586	NCP	%	87			30-130	Pass	
2-Nitrophenol	L25-My0002586	NCP	%	107			30-130	Pass	
2.4-Dichlorophenol	L25-My0002586	NCP	%	101			30-130	Pass	
2.4-Dimethylphenol	L25-My0002586	NCP	%	79			30-130	Pass	
2.4-Dinitrophenol	L25-My0002586	NCP	%	106			30-130	Pass	
2.4.5-Trichlorophenol	L25-My0002586	NCP	%	81			30-130	Pass	
2.4.6-Trichlorophenol	L25-My0002586	NCP	%	93			30-130	Pass	
2.6-Dichlorophenol	L25-My0002586	NCP	%	100			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	L25-My0002586	NCP	%	114			30-130	Pass	
4-Chloro-3-methylphenol	L25-My0002586	NCP	%	101			30-130	Pass	
4-Nitrophenol	L25-My0002586	NCP	%	97			30-130	Pass	
Pentachlorophenol	L25-My0002586	NCP	%	122			30-130	Pass	
Phenol	L25-My0002586	NCP	%	95			30-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	L25-Ap0057940	NCP	%	100			75-125	Pass	
Cadmium	L25-Ap0057940	NCP	%	100			75-125	Pass	
Chromium	L25-Ap0057940	NCP	%	94			75-125	Pass	
Lead	L25-Ap0057940	NCP	%	91			75-125	Pass	
Mercury	L25-Ap0057940	NCP	%	94			75-125	Pass	
Nickel	L25-Ap0057940	NCP	%	88			75-125	Pass	
Zinc	L25-Ap0057940	NCP	%	81			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	L25-My0012159	CP	%	109			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	L25-My0012159	CP	%	87			70-130	Pass	
Toluene	L25-My0012159	CP	%	101			70-130	Pass	
Ethylbenzene	L25-My0012159	CP	%	97			70-130	Pass	
m&p-Xylenes	L25-My0012159	CP	%	107			70-130	Pass	
o-Xylene	L25-My0012159	CP	%	96			70-130	Pass	
Xylenes - Total*	L25-My0012159	CP	%	103			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	L25-My0012159	CP	%	81			70-130	Pass	
TRH C6-C10	L25-My0012159	CP	%	105			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	L25-My0012418	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	L25-My0006217	NCP	mg/L	1.9	< 0.02	<1	30%	Pass	
TRH C15-C28	L25-My0006217	NCP	mg/L	< 0.04	2.3	17	30%	Pass	
TRH C29-C36	L25-My0006217	NCP	mg/L	3.1	< 0.04	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	L25-My0012418	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
TRH C6-C10	L25-My0012418	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	L25-My0006217	NCP	mg/L	1.5	0.31	15	30%	Pass	
TRH >C16-C34	L25-My0006217	NCP	mg/L	< 0.05	1.2	19	30%	Pass	
TRH >C34-C40	L25-My0006217	NCP	mg/L	1.3	< 0.05	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	L25-My0014054	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	L25-My0014054	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium	L25-My0014054	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	L25-My0014054	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	L25-My0014054	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	L25-My0014054	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	L25-My0014054	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	L25-My0014054	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Natalie Hill	Analytical Services Manager
Douglas Todd	Senior Analyst-Organic
Patrick Patfield	Senior Analyst-Organic
Patrick Patfield	Senior Analyst-Volatile
Sean Sangster	Senior Analyst-Metal

Kim Rodgers
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CHAIN OF CUSTODY RECORD
AND ANALYSIS REQUEST

GHD
Level 10, 999 Hay Street
Perth WA 6000
PO Box 3106
Perth WA 6832
Reception Ph: 08 6222 8222

Project ID *(as per ESdat set up; no spaces)*	**PO Number** (to be invoiced)
12658388	12658388
Laboratory Quote No.	**Turnaround Time**
	Standard
Project Manager (Invoice) & GHD accounts	**Email Address (Results)**
AccountsPayableAU@ghd.com	GHD.LabReports@ghd.com

Laboratory: ALS Environmental
Address: 26 Rigali Way, Wangara WA 6065
Laboratory Contact:

GHD Sample ID	Lab Sample ID	Date	Time	Sample Matrix S-Soil/ SL-Sludge/ W-Water/ A-Air	Container: Type B-Bottle/J-Jar/V-Vial/Bag/G-Glass/P-Plastic	Container: Preservative Unpreserved/ HCl/ H2SO4/HNO3/Other	Container: No	Analyses: Metals (8), TRH, BTEXN, PAH, Chlorinated hydrocarbons, VOC/SVOC	Analyses: Hold	Analyses: HOLD	Remarks
SPLIT1	1	1/05/2025						X			Please report as GHD-QC14
SPLIT2	2	1/05/2025						X			Please report as GHD-QC15
SPLIT3	3	2/05/2025							X		Please report as GHD-QC16

Metal (8): arsenic, cadmium, chromium, copper, nickel, lead, zinc, and mercury.

Environmental Division
Perth
Work Order Reference
EP2507168

Telephone : + 61-8-9406 1301

Sampled by: Zak L & Connor A	Date/Time: 1-2/05/25	Relinquished by: Zak L & Connor A	Date/Time: 5/5/2025
Received by: Brian	Date/Time: 5/5 @ 1615	Relinquished by:	Date/Time:

CERTIFICATE OF ANALYSIS

Work Order	: **EP2507168**	Page	: 1 of 14
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: GHD LAB REPORTS	Contact	: Angel Tam
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: +61 08 89820151	Telephone	: +61-8-9406 1301
Project	: 12658388	Date Samples Received	: 05-May-2025 16:15
Order number	: 12658388	Date Analysis Commenced	: 08-May-2025
C-O-C number	: ----	Issue Date	: 13-May-2025 16:38
Sampler	: Zak L & Connor A		
Site	:		
Quote number	: EN/000		
No. of samples received	: 3		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
Efua Wilson	Metals Chemist	Perth Inorganics, Wangara, WA
Niamh Carthew	Inorganic Chemist	Perth Inorganics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074: Where reported, Total Trihalomethanes is the sum of the reported concentrations of all Trihalomethanes at or above the LOR.
- EP074: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP074: Where reported, Sum of chlorinated hydrocarbons includes carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichlorothene, trans-1,2-dichlorothene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethene, vinyl chloride, hexachlorobutadiene and methylene chloride.
- EP074: Where reported, Total Trimethylbenzenes is the sum of the reported concentrations of 1.2.3-Trimethylbenzene, 1.2.4-Trimethylbenzene and 1.3.5-Trimethylbenzene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- EP075: High LCS recovery deemed acceptable as all associated analyte results are less than LOR.
- EP075: Where reported, 'Sum of PAH' is the sum of the USEPA 16 priority PAHs
- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	GHD-QC14	GHD-QC15	----	----	----
			Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit	EP2507168-001	EP2507168-002	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	1.0	%	**1.0**	**2.1**	----	----	----
EG005(ED093)T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	<5	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	**4**	<2	----	----	----
Copper	7440-50-8	5	mg/kg	<5	<5	----	----	----
Lead	7439-92-1	5	mg/kg	<5	<5	----	----	----
Nickel	7440-02-0	2	mg/kg	<2	<2	----	----	----
Zinc	7440-66-6	5	mg/kg	**7**	**8**	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	----	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	----	----	----
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	----	----	----
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	----	----	----
1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	----	----	----
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	----	----	----
1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	----	----	----
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	----	----	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	----	----	----
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	----	----	----
EP074B: Oxygenated Compounds								

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP074B: Oxygenated Compounds - Continued									
Vinyl Acetate	108-05-4	5	mg/kg		<5	<5	----	----	----
2-Butanone (MEK)	78-93-3	5	mg/kg		<5	<5	----	----	----
4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg		<5	<5	----	----	----
2-Hexanone (MBK)	591-78-6	5	mg/kg		<5	<5	----	----	----
EP074C: Sulfonated Compounds									
Carbon disulfide	75-15-0	0.5	mg/kg		<0.5	<0.5	----	----	----
EP074D: Fumigants									
2.2-Dichloropropane	594-20-7	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2-Dichloropropane	78-87-5	0.5	mg/kg		<0.5	<0.5	----	----	----
cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg		<0.5	<0.5	----	----	----
trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg		<0.5	<0.5	----	----	----
EP074E: Halogenated Aliphatic Compounds									
Dichlorodifluoromethane	75-71-8	5	mg/kg		<5	<5	----	----	----
Chloromethane	74-87-3	5	mg/kg		<5	<5	----	----	----
Vinyl chloride	75-01-4	5	mg/kg		<5	<5	----	----	----
Bromomethane	74-83-9	5	mg/kg		<5	<5	----	----	----
Chloroethane	75-00-3	5	mg/kg		<5	<5	----	----	----
Trichlorofluoromethane	75-69-4	5	mg/kg		<5	<5	----	----	----
1.1-Dichloroethene	75-35-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Iodomethane	74-88-4	0.5	mg/kg		<0.5	<0.5	----	----	----
trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1-Dichloroethane	75-34-3	0.5	mg/kg		<0.5	<0.5	----	----	----
cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1.1-Trichloroethane	71-55-6	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1-Dichloropropylene	563-58-6	0.5	mg/kg		<0.5	<0.5	----	----	----
Carbon Tetrachloride	56-23-5	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP074E: Halogenated Aliphatic Compounds - Continued									
1.2-Dichloroethane	107-06-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Trichloroethene	79-01-6	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibromomethane	74-95-3	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1.2-Trichloroethane	79-00-5	0.5	mg/kg		<0.5	<0.5	----	----	----
1.3-Dichloropropane	142-28-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg		<0.5	<0.5	----	----	----
trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg		<0.5	<0.5	----	----	----
cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg		<0.5	<0.5	----	----	----
1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2.3-Trichloropropane	96-18-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Pentachloroethane	76-01-7	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg		<0.5	<0.5	----	----	----
EP074F: Halogenated Aromatic Compounds									
Chlorobenzene	108-90-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Bromobenzene	108-86-1	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Chlorotoluene	95-49-8	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Chlorotoluene	106-43-4	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg		<0.5	<0.5	----	----	----
EP074G: Trihalomethanes									
Chloroform	67-66-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibromochloromethane	124-48-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Bromoform	75-25-2	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	**0.6**	----	----	----
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	**1.2**	----	----	----
EP075A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Methylphenol	95-48-7	0.5	mg/kg		<0.5	<0.5	----	----	----
3- & 4-Methylphenol	1319-77-3	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg		<0.5	<0.5	----	----	----
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		<0.5	<0.5	----	----	----
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		<0.5	<0.5	----	----	----
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075A: Phenolic Compounds - Continued									
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		<0.5	<0.5	----	----	----
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		<0.5	<0.5	----	----	----
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Pentachlorophenol	87-86-5	1	mg/kg		<1	<1	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Methylnaphthalene	91-57-6	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Chloronaphthalene	91-58-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	----	----	----
N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg		<1	<1	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	----	----	----
3-Methylcholanthrene	56-49-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of PAHs**	----	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075B: Polynuclear Aromatic Hydrocarbons - Continued									
^ Benzo(a)pyrene TEQ (zero)	----	0.5	mg/kg		<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (half LOR)	----	0.5	mg/kg		**0.6**	**0.6**	----	----	----
^ Benzo(a)pyrene TEQ (LOR)	----	0.5	mg/kg		**1.2**	**1.2**	----	----	----
EP075C: Phthalate Esters									
Dimethyl phthalate	131-11-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Diethyl phthalate	84-66-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Di-n-butyl phthalate	84-74-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Butyl benzyl phthalate	85-68-7	0.5	mg/kg		<0.5	<0.5	----	----	----
bis(2-ethylhexyl) phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	----	----	----
Di-n-octylphthalate	117-84-0	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075D: Nitrosamines									
N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosodiethylamine	55-18-5	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosopyrrolidine	930-55-2	1.0	mg/kg		<1.0	<1.0	----	----	----
N-Nitrosomorpholine	59-89-2	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosopiperidine	100-75-4	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosodibutylamine	924-16-3	0.5	mg/kg		<0.5	<0.5	----	----	----
N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	1.0	mg/kg		<1.0	<1.0	----	----	----
Methapyrilene	91-80-5	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075E: Nitroaromatics and Ketones									
2-Picoline	109-06-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Acetophenone	98-86-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Nitrobenzene	98-95-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Isophorone	78-59-1	0.5	mg/kg		<0.5	<0.5	----	----	----
2.6-Dinitrotoluene	606-20-2	1.0	mg/kg		<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075E: Nitroaromatics and Ketones - Continued									
2.4-Dinitrotoluene	121-14-2	1.0	mg/kg		<1.0	<1.0	----	----	----
1-Naphthylamine	134-32-7	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg		<0.5	<0.5	----	----	----
5-Nitro-o-toluidine	99-55-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Azobenzene	103-33-3	1	mg/kg		<1	<1	----	----	----
1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Phenacetin	62-44-2	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Aminobiphenyl	92-67-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Pentachloronitrobenzene	82-68-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Pronamide	23950-58-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Dimethylaminoazobenzene	60-11-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Chlorobenzilate	510-15-6	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075F: Haloethers									
Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075G: Chlorinated Hydrocarbons									
1.3-Dichlorobenzene	541-73-1	0.5	mg/kg		<0.5	<0.5	----	----	----
1.4-Dichlorobenzene	106-46-7	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2-Dichlorobenzene	95-50-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Hexachloroethane	67-72-1	0.5	mg/kg		<0.5	<0.5	----	----	----
1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Hexachloropropylene	1888-71-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Hexachlorobutadiene	87-68-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg		<2.5	<2.5	----	----	----
Pentachlorobenzene	608-93-5	0.5	mg/kg		<0.5	<0.5	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075G: Chlorinated Hydrocarbons - Continued									
Hexachlorobenzene (HCB)	118-74-1	1.0	mg/kg		<1.0	<1.0	----	----	----
EP075H: Anilines and Benzidines									
Aniline	62-53-3	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Chloroaniline	106-47-8	0.5	mg/kg		<0.5	<0.5	----	----	----
2-Nitroaniline	88-74-4	1.0	mg/kg		<1.0	<1.0	----	----	----
3-Nitroaniline	99-09-2	1.0	mg/kg		<1.0	<1.0	----	----	----
Dibenzofuran	132-64-9	0.5	mg/kg		<0.5	<0.5	----	----	----
4-Nitroaniline	100-01-6	0.5	mg/kg		<0.5	<0.5	----	----	----
Carbazole	86-74-8	0.5	mg/kg		<0.5	<0.5	----	----	----
3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg		<0.5	<0.5	----	----	----
EP075I: Organochlorine Pesticides									
alpha-BHC	319-84-6	0.5	mg/kg		<0.5	<0.5	----	----	----
beta-BHC	319-85-7	0.5	mg/kg		<0.5	<0.5	----	----	----
gamma-BHC - (Lindane)	58-89-9	0.5	mg/kg		<0.5	<0.5	----	----	----
delta-BHC	319-86-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Heptachlor	76-44-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Aldrin	309-00-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Heptachlor epoxide	1024-57-3	0.5	mg/kg		<0.5	<0.5	----	----	----
alpha-Endosulfan	959-98-8	0.5	mg/kg		<0.5	<0.5	----	----	----
4.4`-DDE	72-55-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Dieldrin	60-57-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Endrin	72-20-8	0.5	mg/kg		<0.5	<0.5	----	----	----
beta-Endosulfan	33213-65-9	0.5	mg/kg		<0.5	<0.5	----	----	----
4.4`-DDD	72-54-8	0.5	mg/kg		<0.5	<0.5	----	----	----
Endosulfan sulfate	1031-07-8	0.5	mg/kg		<0.5	<0.5	----	----	----
4.4`-DDT	50-29-3	1.0	mg/kg		<1.0	<1.0	----	----	----
EP075J: Organophosphorus Pesticides									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075J: Organophosphorus Pesticides - Continued									
Dichlorvos	62-73-7	0.5	mg/kg		<0.5	<0.5	----	----	----
Dimethoate	60-51-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Diazinon	333-41-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg		<0.5	<0.5	----	----	----
Malathion	121-75-5	0.5	mg/kg		<0.5	<0.5	----	----	----
Fenthion	55-38-9	0.5	mg/kg		<0.5	<0.5	----	----	----
Chlorpyrifos	2921-88-2	0.5	mg/kg		<0.5	<0.5	----	----	----
Pirimphos-ethyl	23505-41-1	0.5	mg/kg		<0.5	<0.5	----	----	----
Chlorfenvinphos	470-90-6	0.5	mg/kg		<0.5	<0.5	----	----	----
Prothiofos	34643-46-4	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethion	563-12-2	0.5	mg/kg		<0.5	<0.5	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	<10	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	<10	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	<50	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	<100	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	<100	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		<50	<50	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	<50	----	----	----
EP080: BTEXN									

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP080: BTEXN - Continued									
Benzene	71-43-2	0.2	mg/kg		<0.2	<0.2	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	<0.5	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	<0.5	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	<0.5	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	<0.5	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	<0.2	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	<0.5	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	<1	----	----	----
EP074S: VOC Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.5	%		**106**	**108**	----	----	----
Toluene-D8	2037-26-5	0.5	%		**104**	**110**	----	----	----
4-Bromofluorobenzene	460-00-4	0.5	%		**102**	**103**	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**105**	**105**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**107**	**107**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**74.9**	**78.0**	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**125**	**124**	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**112**	**112**	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**121**	**115**	----	----	----
EP075S: Acid Extractable Surrogates									
2-Fluorophenol	367-12-4	0.5	%		**67.6**	**63.9**	----	----	----
Phenol-d6	13127-88-3	0.5	%		**71.6**	**64.6**	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**69.1**	**65.6**	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**50.5**	**50.2**	----	----	----
EP075T: Base/Neutral Extractable Surrogates									
Nitrobenzene-D5	4165-60-0	0.5	%		**107**	**99.6**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	GHD-QC14	GHD-QC15	----	----	----
				Sampling date / time	01-May-2025 00:00	01-May-2025 00:00	----	----	----
Compound	CAS Number	LOR	Unit		EP2507168-001	EP2507168-002	--------	--------	--------
					Result	Result	----	----	----
EP075T: Base/Neutral Extractable Surrogates - Continued									
1.2-Dichlorobenzene-D4	2199-69-1	0.5	%		74.6	73.7	----	----	----
2-Fluorobiphenyl	321-60-8	0.5	%		98.8	100	----	----	----
Anthracene-d10	1719-06-8	0.5	%		74.3	75.7	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		88.8	86.4	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		106	113	----	----	----
Toluene-D8	2037-26-5	0.2	%		105	119	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		98.1	104	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP074S: VOC Surrogates			
1.2-Dichloroethane-D4	17060-07-0	66	127
Toluene-D8	2037-26-5	66	126
4-Bromofluorobenzene	460-00-4	60	115
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	57	119
2-Chlorophenol-D4	93951-73-6	52	130
2.4.6-Tribromophenol	118-79-6	40	132
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	53	139
Anthracene-d10	1719-06-8	68	124
4-Terphenyl-d14	1718-51-0	66	132
EP075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	34	132
Phenol-d6	13127-88-3	46	132
2-Chlorophenol-D4	93951-73-6	45	135
2.4.6-Tribromophenol	118-79-6	39	139
EP075T: Base/Neutral Extractable Surrogates			
Nitrobenzene-D5	4165-60-0	38	132
1.2-Dichlorobenzene-D4	2199-69-1	40	126
2-Fluorobiphenyl	321-60-8	43	131
Anthracene-d10	1719-06-8	49	131
4-Terphenyl-d14	1718-51-0	54	140
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	132
Toluene-D8	2037-26-5	66	125
4-Bromofluorobenzene	460-00-4	60	124

QUALITY CONTROL REPORT

Work Order	: **EP2507168**	Page	: 1 of 18
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: GHD LAB REPORTS	Contact	: Angel Tam
Address	: 999 HAY STREET PERTH WA, AUSTRALIA 6000	Address	: 26 Rigali Way Wangara WA Australia 6065
Telephone	: +61 08 89820151	Telephone	: +61-8-9406 1301
Project	: 12658388	Date Samples Received	: 05-May-2025
Order number	: 12658388	Date Analysis Commenced	: 08-May-2025
C-O-C number	: ----	Issue Date	: 13-May-2025
Sampler	: Zak L & Connor A		
Site	:		
Quote number	: EN/000		
No. of samples received	: 3		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
David Viner	SENIOR LAB TECH	Perth Organics, Wangara, WA
Efua Wilson	Metals Chemist	Perth Inorganics, Wangara, WA
Niamh Carthew	Inorganic Chemist	Perth Inorganics, Wangara, WA

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC
* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG005(ED093)T: Total Metals by ICP-AES (QC Lot: 6562865)									
EP2507168-001	GHD-QC14	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	4	3	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	7	8	0.0	No Limit
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 6563076)									
EP2507168-001	GHD-QC14	EA055: Moisture Content	----	0.1 (1.0)*	%	1.0	1.1	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 6562866)									
EP2507168-001	GHD-QC14	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 6560371) - continued									
EP2507168-001	GHD-QC14	EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074B: Oxygenated Compounds (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	<5	0.0	No Limit
		EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	<5	0.0	No Limit
EP074C: Sulfonated Compounds (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074D: Fumigants (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074E: Halogenated Aliphatic Compounds (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP074E: Halogenated Aliphatic Compounds (QC Lot: 6560371) - continued									
EP2507168-001	GHD-QC14	EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloromethane	74-87-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Bromomethane	74-83-9	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Chloroethane	75-00-3	5	mg/kg	<5	<5	0.0	No Limit
		EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	<5	0.0	No Limit
EP074F: Halogenated Aromatic Compounds (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP074G: Trihalomethanes (QC Lot: 6560371)									
EP2507168-001	GHD-QC14	EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6560791)									
EP2507168-002	GHD-QC15	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6560791) - continued									
EP2507168-002	GHD-QC15	EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP2507168-001	GHD-QC14	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075A: Phenolic Compounds (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 3- & 4-Methylphenol	1319-77-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pentachlorophenol	87-86-5	1	mg/kg	<1	<1	0.0	No Limit
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Methylnaphthalene	91-57-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Chloronaphthalene	91-58-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075B: Polynuclear Aromatic Hydrocarbons (QC Lot: 6560793) - continued									
EP2507168-001	GHD-QC14	EP075: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 3-Methylcholanthrene	56-49-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1	<1	0.0	No Limit
EP075C: Phthalate Esters (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Dimethyl phthalate	131-11-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Diethyl phthalate	84-66-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Di-n-butyl phthalate	84-74-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Butyl benzyl phthalate	85-68-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: bis(2-ethylhexyl) phthalate	117-81-7	0.5 (5.0)*	mg/kg	<5.0	<5.0	0.0	No Limit
		EP075: Di-n-octylphthalate	117-84-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075D: Nitrosamines (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosodiethylamine	55-18-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosopyrrolidine	930-55-2	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: N-Nitrosomorpholine	59-89-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosopiperidine	100-75-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosodibutylamine	924-16-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: Methapyrilene	91-80-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075E: Nitroaromatics and Ketones (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: 2-Picoline	109-06-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Acetophenone	98-86-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP075E: Nitroaromatics and Ketones (QC Lot: 6560793) - continued									
EP2507168-001	GHD-QC14	EP075: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Isophorone	78-59-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2.6-Dinitrotoluene	606-20-2	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: 2.4-Dinitrotoluene	121-14-2	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: 1-Naphthylamine	134-32-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 5-Nitro-o-toluidine	99-55-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Phenacetin	62-44-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Aminobiphenyl	92-67-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pentachloronitrobenzene	82-68-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pronamide	23950-58-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Chlorobenzilate	510-15-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Azobenzene	103-33-3	1	mg/kg	<1	<1	0.0	No Limit
EP075F: Haloethers (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075G: Chlorinated Hydrocarbons (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Hexachloroethane	67-72-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Hexachloropropylene	1888-71-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pentachlorobenzene	608-93-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Hexachlorobenzene (HCB)	118-74-1	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	<2.5	<2.5	0.0	No Limit
EP075H: Anilines and Benzidines (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Aniline	62-53-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4-Chloroaniline	106-47-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 2-Nitroaniline	88-74-4	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: 3-Nitroaniline	99-09-2	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075: Dibenzofuran	132-64-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP075H: Anilines and Benzidines (QC Lot: 6560793) - continued									
EP2507168-001	GHD-QC14	EP075: 4-Nitroaniline	100-01-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Carbazole	86-74-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075I: Organochlorine Pesticides (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: alpha-BHC	319-84-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: beta-BHC	319-85-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: gamma-BHC - (Lindane)	58-89-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: delta-BHC	319-86-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Heptachlor	76-44-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Aldrin	309-00-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Heptachlor epoxide	1024-57-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: alpha-Endosulfan	959-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4.4`-DDE	72-55-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Dieldrin	60-57-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Endrin	72-20-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: beta-Endosulfan	33213-65-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4.4`-DDD	72-54-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Endosulfan sulfate	1031-07-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: 4.4`-DDT	50-29-3	0.5 (1.0)*	mg/kg	<1.0	<1.0	0.0	No Limit
EP075J: Organophosphorus Pesticides (QC Lot: 6560793)									
EP2507168-001	GHD-QC14	EP075: Dichlorvos	62-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Dimethoate	60-51-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Diazinon	333-41-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Malathion	121-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Fenthion	55-38-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Chlorpyrifos	2921-88-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Pirimphos-ethyl	23505-41-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Chlorfenvinphos	470-90-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Prothiofos	34643-46-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075: Ethion	563-12-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6560372)									
EP2507168-001	GHD-QC14	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6560792)									
EP2507168-002	GHD-QC15	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 6560792) - continued									
EP2507168-001	GHD-QC14	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6560372)									
EP2507168-001	GHD-QC14	EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 6560792)									
EP2507168-002	GHD-QC15	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP2507168-001	GHD-QC14	EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEXN (QC Lot: 6560372)									
EP2507168-001	GHD-QC14	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Naphthalene	91-20-3	1	mg/kg	<1	<1	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6562865)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	77.39 mg/kg	96.6	70.0	130
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
EG005T: Chromium	7440-47-3	2	mg/kg	<2	18.67 mg/kg	94.8	70.0	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	46.13 mg/kg	95.8	70.0	130
EG005T: Lead	7439-92-1	5	mg/kg	<5	58.42 mg/kg	90.4	70.0	130
EG005T: Nickel	7440-02-0	2	mg/kg	<2	14.48 mg/kg	93.6	70.0	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	190.4 mg/kg	93.3	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6562866)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	0.115 mg/kg	73.5	70.0	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 6560371)								
EP074: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	99.4	75.0	111
EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	93.7	78.0	110
EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	93.4	76.0	110
EP074: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	2 mg/kg	93.4	77.0	111
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	104	69.0	117
EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	95.0	76.0	112
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	91.6	76.0	112
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	109	64.0	122
EP074: 1.3.5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	109	72.0	116
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	108	71.0	117
EP074: 1.2.4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	111	74.0	114
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	107	69.0	117
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	109	71.0	117
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	112	69.0	121
EP074B: Oxygenated Compounds (QCLot: 6560371)								
EP074: Vinyl Acetate	108-05-4	5	mg/kg	<5	10 mg/kg	122	44.0	140
EP074: 2-Butanone (MEK)	78-93-3	5	mg/kg	<5	10 mg/kg	115	49.0	143
EP074: 4-Methyl-2-pentanone (MIBK)	108-10-1	5	mg/kg	<5	10 mg/kg	116	59.0	131
EP074: 2-Hexanone (MBK)	591-78-6	5	mg/kg	<5	10 mg/kg	122	51.0	145
EP074C: Sulfonated Compounds (QCLot: 6560371)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP074C: Sulfonated Compounds (QCLot: 6560371) - continued								
EP074: Carbon disulfide	75-15-0	0.5	mg/kg	<0.5	1 mg/kg	102	47.0	135
EP074D: Fumigants (QCLot: 6560371)								
EP074: 2.2-Dichloropropane	594-20-7	0.5	mg/kg	<0.5	1 mg/kg	112	63.0	121
EP074: 1.2-Dichloropropane	78-87-5	0.5	mg/kg	<0.5	1 mg/kg	108	74.0	112
EP074: cis-1.3-Dichloropropylene	10061-01-5	0.5	mg/kg	<0.5	1 mg/kg	115	66.0	118
EP074: trans-1.3-Dichloropropylene	10061-02-6	0.5	mg/kg	<0.5	1 mg/kg	115	60.0	124
EP074: 1.2-Dibromoethane (EDB)	106-93-4	0.5	mg/kg	<0.5	1 mg/kg	96.7	71.0	119
EP074E: Halogenated Aliphatic Compounds (QCLot: 6560371)								
EP074: Dichlorodifluoromethane	75-71-8	5	mg/kg	<5	10 mg/kg	93.2	27.3	145
EP074: Chloromethane	74-87-3	5	mg/kg	<5	10 mg/kg	97.6	50.0	130
EP074: Vinyl chloride	75-01-4	5	mg/kg	<5	10 mg/kg	132	49.0	133
EP074: Bromomethane	74-83-9	5	mg/kg	<5	10 mg/kg	83.5	54.0	138
EP074: Chloroethane	75-00-3	5	mg/kg	<5	10 mg/kg	89.0	56.0	134
EP074: Trichlorofluoromethane	75-69-4	5	mg/kg	<5	10 mg/kg	94.5	60.0	124
EP074: 1.1-Dichloroethene	75-35-4	0.5	mg/kg	<0.5	1 mg/kg	96.7	65.0	117
EP074: Iodomethane	74-88-4	0.5	mg/kg	<0.5	1 mg/kg	95.9	50.0	140
EP074: trans-1.2-Dichloroethene	156-60-5	0.5	mg/kg	<0.5	1 mg/kg	99.4	68.0	116
EP074: 1.1-Dichloroethane	75-34-3	0.5	mg/kg	<0.5	1 mg/kg	105	72.0	112
EP074: cis-1.2-Dichloroethene	156-59-2	0.5	mg/kg	<0.5	1 mg/kg	99.8	72.0	112
EP074: 1.1.1-Trichloroethane	71-55-6	0.5	mg/kg	<0.5	1 mg/kg	100	68.0	118
EP074: 1.1-Dichloropropylene	563-58-6	0.5	mg/kg	<0.5	1 mg/kg	102	69.0	117
EP074: Carbon Tetrachloride	56-23-5	0.5	mg/kg	<0.5	1 mg/kg	99.3	64.0	120
EP074: 1.2-Dichloroethane	107-06-2	0.5	mg/kg	<0.5	1 mg/kg	107	70.0	120
EP074: Trichloroethene	79-01-6	0.5	mg/kg	<0.5	1 mg/kg	101	76.0	110
EP074: Dibromomethane	74-95-3	0.5	mg/kg	<0.5	1 mg/kg	111	71.0	115
EP074: 1.1.2-Trichloroethane	79-00-5	0.5	mg/kg	<0.5	1 mg/kg	96.6	73.0	117
EP074: 1.3-Dichloropropane	142-28-9	0.5	mg/kg	<0.5	1 mg/kg	99.4	71.0	119
EP074: Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	1 mg/kg	78.0	66.0	124
EP074: 1.1.1.2-Tetrachloroethane	630-20-6	0.5	mg/kg	<0.5	1 mg/kg	105	70.0	130
EP074: trans-1.4-Dichloro-2-butene	110-57-6	0.5	mg/kg	<0.5	1 mg/kg	123	62.0	126
EP074: cis-1.4-Dichloro-2-butene	1476-11-5	0.5	mg/kg	<0.5	1 mg/kg	122	59.0	131
EP074: 1.1.2.2-Tetrachloroethane	79-34-5	0.5	mg/kg	<0.5	1 mg/kg	100	46.0	138
EP074: 1.2.3-Trichloropropane	96-18-4	0.5	mg/kg	<0.5	1 mg/kg	100	70.0	122
EP074: Pentachloroethane	76-01-7	0.5	mg/kg	<0.5	1 mg/kg	104	38.0	146

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP074E: Halogenated Aliphatic Compounds (QCLot: 6560371) - continued								
EP074: 1.2-Dibromo-3-chloropropane	96-12-8	0.5	mg/kg	<0.5	1 mg/kg	109	58.0	132
EP074F: Halogenated Aromatic Compounds (QCLot: 6560371)								
EP074: Chlorobenzene	108-90-7	0.5	mg/kg	<0.5	1 mg/kg	97.2	77.0	111
EP074: Bromobenzene	108-86-1	0.5	mg/kg	<0.5	1 mg/kg	101	76.0	112
EP074: 2-Chlorotoluene	95-49-8	0.5	mg/kg	<0.5	1 mg/kg	110	61.0	127
EP074: 4-Chlorotoluene	106-43-4	0.5	mg/kg	<0.5	1 mg/kg	112	67.0	121
EP074: 1.2.3-Trichlorobenzene	87-61-6	0.5	mg/kg	<0.5	1 mg/kg	87.2	71.0	123
EP074G: Trihalomethanes (QCLot: 6560371)								
EP074: Chloroform	67-66-3	0.5	mg/kg	<0.5	1 mg/kg	101	73.0	111
EP074: Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	1 mg/kg	107	66.0	118
EP074: Dibromochloromethane	124-48-1	0.5	mg/kg	<0.5	1 mg/kg	111	65.0	121
EP074: Bromoform	75-25-2	0.5	mg/kg	<0.5	1 mg/kg	100	62.0	124
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6560791)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	3 mg/kg	89.8	71.0	123
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	3 mg/kg	88.8	69.0	129
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	3 mg/kg	81.6	65.0	125
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	3 mg/kg	90.6	71.0	125
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	3 mg/kg	89.9	66.0	124
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	3 mg/kg	87.8	60.0	112
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	3 mg/kg	89.0	67.0	127
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	3 mg/kg	90.6	65.0	127
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	3 mg/kg	81.9	57.0	125
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	3 mg/kg	57.9	57.0	131
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg	<0.5	3 mg/kg	87.6	65.0	125
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	3 mg/kg	98.0	69.0	127
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	3 mg/kg	92.3	63.0	121
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	3 mg/kg	92.3	61.0	121
EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	3 mg/kg	54.2	52.0	128
EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	3 mg/kg	109	65.0	125
EP075A: Phenolic Compounds (QCLot: 6560793)								
EP075: Phenol	108-95-2	0.5	mg/kg	<0.5	1.5 mg/kg	105	59.0	135
EP075: 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	1.5 mg/kg	94.1	64.0	130
EP075: 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	1.5 mg/kg	117	53.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075A: Phenolic Compounds (QCLot: 6560793) - continued								
EP075: 3- & 4-Methylphenol	1319-77-3	0.5	mg/kg	<0.5	1.5 mg/kg	116	62.0	134
EP075: 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	1.5 mg/kg	80.1	54.0	136
EP075: 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	1.5 mg/kg	118	48.0	136
EP075: 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	1.5 mg/kg	94.0	55.0	127
EP075: 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	1.5 mg/kg	92.4	56.0	114
EP075: 4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg	<0.5	1.5 mg/kg	94.9	32.0	128
EP075: 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	1.5 mg/kg	78.4	49.0	113
EP075: 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	1.5 mg/kg	82.9	50.0	150
EP075: Pentachlorophenol	87-86-5	1	mg/kg	<1	1.5 mg/kg	109	23.0	117
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 6560793)								
EP075: Naphthalene	91-20-3	0.5	mg/kg	<0.5	1.5 mg/kg	98.8	68.0	118
EP075: 2-Methylnaphthalene	91-57-6	0.5	mg/kg	<0.5	1.5 mg/kg	82.9	68.0	122
EP075: 2-Chloronaphthalene	91-58-7	0.5	mg/kg	<0.5	1.5 mg/kg	91.7	58.0	124
EP075: Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	1.5 mg/kg	101	64.0	122
EP075: Acenaphthene	83-32-9	0.5	mg/kg	<0.5	1.5 mg/kg	99.7	68.0	118
EP075: Fluorene	86-73-7	0.5	mg/kg	<0.5	1.5 mg/kg	99.8	67.0	119
EP075: Phenanthrene	85-01-8	0.5	mg/kg	<0.5	1.5 mg/kg	103	64.0	120
EP075: Anthracene	120-12-7	0.5	mg/kg	<0.5	1.5 mg/kg	102	65.0	119
EP075: Fluoranthene	206-44-0	0.5	mg/kg	<0.5	1.5 mg/kg	98.8	59.0	123
EP075: Pyrene	129-00-0	0.5	mg/kg	<0.5	1.5 mg/kg	101	62.0	124
EP075: N-2-Fluorenyl Acetamide	53-96-3	0.5	mg/kg	<0.5	1.5 mg/kg	91.1	33.0	123
EP075: Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	1.5 mg/kg	98.8	49.0	129
EP075: Chrysene	218-01-9	0.5	mg/kg	<0.5	1.5 mg/kg	110	57.0	131
EP075: Benzo(b+j) & Benzo(k)fluoranthene	205-99-2 207-08-9	1	mg/kg	<1	3 mg/kg	93.9	52.0	126
EP075: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.5	mg/kg	<0.5	1.5 mg/kg	118	42.0	134
EP075: Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	1.5 mg/kg	95.1	51.0	123
EP075: 3-Methylcholanthrene	56-49-5	0.5	mg/kg	<0.5	1.5 mg/kg	81.4	46.0	122
EP075: Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	1.5 mg/kg	91.6	51.0	123
EP075: Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	1.5 mg/kg	90.5	49.0	121
EP075: Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	1.5 mg/kg	95.5	51.0	127
EP075C: Phthalate Esters (QCLot: 6560793)								
EP075: Dimethyl phthalate	131-11-3	0.5	mg/kg	<0.5	1.5 mg/kg	94.6	60.0	126
EP075: Diethyl phthalate	84-66-2	0.5	mg/kg	<0.5	1.5 mg/kg	98.8	65.0	119

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075C: Phthalate Esters (QCLot: 6560793) - continued								
EP075: Di-n-butyl phthalate	84-74-2	0.5	mg/kg	<0.5	1.5 mg/kg	108	64.0	124
EP075: Butyl benzyl phthalate	85-68-7	0.5	mg/kg	<0.5	1.5 mg/kg	107	61.0	123
EP075: bis(2-ethylhexyl) phthalate	117-81-7	----	mg/kg	----	1.5 mg/kg	76.0	63.0	119
EP075: Di-n-octylphthalate	117-84-0	0.5	mg/kg	<0.5	1.5 mg/kg	90.8	54.0	130
EP075D: Nitrosamines (QCLot: 6560793)								
EP075: N-Nitrosomethylethylamine	10595-95-6	0.5	mg/kg	<0.5	1.5 mg/kg	75.7	45.0	137
EP075: N-Nitrosodiethylamine	55-18-5	0.5	mg/kg	<0.5	1.5 mg/kg	79.2	53.0	129
EP075: N-Nitrosopyrrolidine	930-55-2	0.5	mg/kg	<0.5	1.5 mg/kg	99.9	49.0	141
EP075: N-Nitrosomorpholine	59-89-2	0.5	mg/kg	<0.5	1.5 mg/kg	129	49.0	143
EP075: N-Nitrosodi-n-propylamine	621-64-7	0.5	mg/kg	<0.5	1.5 mg/kg	123	48.0	146
EP075: N-Nitrosopiperidine	100-75-4	0.5	mg/kg	<0.5	1.5 mg/kg	100	54.0	138
EP075: N-Nitrosodibutylamine	924-16-3	0.5	mg/kg	<0.5	1.5 mg/kg	107	63.0	117
EP075: N-Nitrosodiphenyl & Diphenylamine	86-30-6 122-39-4	0.5	mg/kg	<0.5	1.5 mg/kg	91.9	61.0	115
EP075: Methapyrilene	91-80-5	0.5	mg/kg	<0.5	1.5 mg/kg	# 347	4.00	190
EP075E: Nitroaromatics and Ketones (QCLot: 6560793)								
EP075: 2-Picoline	109-06-8	0.5	mg/kg	<0.5	1.5 mg/kg	73.9	16.8	137
EP075: Acetophenone	98-86-2	0.5	mg/kg	<0.5	1.5 mg/kg	110	60.0	136
EP075: Nitrobenzene	98-95-3	0.5	mg/kg	<0.5	1.5 mg/kg	114	66.0	138
EP075: Isophorone	78-59-1	0.5	mg/kg	<0.5	1.5 mg/kg	118	60.0	138
EP075: 2.6-Dinitrotoluene	606-20-2	0.5	mg/kg	<0.5	1.5 mg/kg	87.5	56.0	122
EP075: 2.4-Dinitrotoluene	121-14-2	0.5	mg/kg	<0.5	1.5 mg/kg	84.4	57.0	105
EP075: 1-Naphthylamine	134-32-7	0.5	mg/kg	<0.5	1.5 mg/kg	# 144	5.90	80.0
EP075: 4-Nitroquinoline-N-oxide	56-57-5	0.5	mg/kg	<0.5	1.5 mg/kg	137	21.1	161
EP075: 5-Nitro-o-toluidine	99-55-8	0.5	mg/kg	<0.5	1.5 mg/kg	73.2	20.1	106
EP075: Azobenzene	103-33-3	1	mg/kg	<1	1.5 mg/kg	106	63.0	119
EP075: 1.3.5-Trinitrobenzene	99-35-4	0.5	mg/kg	<0.5	1.5 mg/kg	90.1	18.2	106
EP075: Phenacetin	62-44-2	0.5	mg/kg	<0.5	1.5 mg/kg	94.7	49.0	121
EP075: 4-Aminobiphenyl	92-67-1	0.5	mg/kg	<0.5	1.5 mg/kg	111	61.0	115
EP075: Pentachloronitrobenzene	82-68-8	0.5	mg/kg	<0.5	1.5 mg/kg	97.4	61.0	117
EP075: Pronamide	23950-58-5	0.5	mg/kg	<0.5	1.5 mg/kg	105	62.0	120
EP075: Dimethylaminoazobenzene	60-11-7	0.5	mg/kg	<0.5	1.5 mg/kg	88.5	47.0	125
EP075: Chlorobenzilate	510-15-6	0.5	mg/kg	<0.5	1.5 mg/kg	107	47.0	133
EP075F: Haloethers (QCLot: 6560793)								

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP075F: Haloethers (QCLot: 6560793) - continued								
EP075: Bis(2-chloroethyl) ether	111-44-4	0.5	mg/kg	<0.5	1.5 mg/kg	109	50.0	144
EP075: Bis(2-chloroethoxy) methane	111-91-1	0.5	mg/kg	<0.5	1.5 mg/kg	107	49.0	141
EP075: 4-Chlorophenyl phenyl ether	7005-72-3	0.5	mg/kg	<0.5	1.5 mg/kg	90.4	65.0	119
EP075: 4-Bromophenyl phenyl ether	101-55-3	0.5	mg/kg	<0.5	1.5 mg/kg	87.2	60.0	122
EP075G: Chlorinated Hydrocarbons (QCLot: 6560793)								
EP075: 1.3-Dichlorobenzene	541-73-1	0.5	mg/kg	<0.5	1.5 mg/kg	91.7	70.0	112
EP075: 1.4-Dichlorobenzene	106-46-7	0.5	mg/kg	<0.5	1.5 mg/kg	93.3	67.0	119
EP075: 1.2-Dichlorobenzene	95-50-1	0.5	mg/kg	<0.5	1.5 mg/kg	96.2	72.0	120
EP075: Hexachloroethane	67-72-1	0.5	mg/kg	<0.5	1.5 mg/kg	90.8	65.0	119
EP075: 1.2.4-Trichlorobenzene	120-82-1	0.5	mg/kg	<0.5	1.5 mg/kg	91.6	66.0	132
EP075: Hexachloropropylene	1888-71-7	0.5	mg/kg	<0.5	1.5 mg/kg	89.3	43.0	129
EP075: Hexachlorobutadiene	87-68-3	0.5	mg/kg	<0.5	1.5 mg/kg	93.4	64.0	124
EP075: Hexachlorocyclopentadiene	77-47-4	2.5	mg/kg	<2.5	1.5 mg/kg	81.6	6.60	103
EP075: Pentachlorobenzene	608-93-5	0.5	mg/kg	<0.5	1.5 mg/kg	88.0	67.0	117
EP075: Hexachlorobenzene (HCB)	118-74-1	0.5	mg/kg	<0.5	1.5 mg/kg	90.7	55.0	123
EP075H: Anilines and Benzidines (QCLot: 6560793)								
EP075: Aniline	62-53-3	0.5	mg/kg	<0.5	1.5 mg/kg	80.0	32.0	144
EP075: 4-Chloroaniline	106-47-8	0.5	mg/kg	<0.5	1.5 mg/kg	70.8	13.9	74.0
EP075: 2-Nitroaniline	88-74-4	0.5	mg/kg	<0.5	1.5 mg/kg	85.2	50.0	150
EP075: 3-Nitroaniline	99-09-2	0.5	mg/kg	<0.5	1.5 mg/kg	110	3.90	116
EP075: Dibenzofuran	132-64-9	0.5	mg/kg	<0.5	1.5 mg/kg	93.7	69.0	115
EP075: 4-Nitroaniline	100-01-6	0.5	mg/kg	<0.5	1.5 mg/kg	98.9	39.0	125
EP075: Carbazole	86-74-8	0.5	mg/kg	<0.5	1.5 mg/kg	104	65.0	123
EP075: 3.3`-Dichlorobenzidine	91-94-1	0.5	mg/kg	<0.5	1.5 mg/kg	# 105	33.0	101
EP075I: Organochlorine Pesticides (QCLot: 6560793)								
EP075: alpha-BHC	319-84-6	0.5	mg/kg	<0.5	1.5 mg/kg	90.0	60.0	124
EP075: beta-BHC	319-85-7	0.5	mg/kg	<0.5	1.5 mg/kg	103	50.0	150
EP075: gamma-BHC - (Lindane)	58-89-9	0.5	mg/kg	<0.5	1.5 mg/kg	107	50.0	150
EP075: delta-BHC	319-86-8	0.5	mg/kg	<0.5	1.5 mg/kg	119	64.0	122
EP075: Heptachlor	76-44-8	0.5	mg/kg	<0.5	1.5 mg/kg	112	52.0	124
EP075: Aldrin	309-00-2	0.5	mg/kg	<0.5	1.5 mg/kg	# 134	66.0	130
EP075: Heptachlor epoxide	1024-57-3	0.5	mg/kg	<0.5	1.5 mg/kg	89.5	52.0	132
EP075: alpha-Endosulfan	959-98-8	0.5	mg/kg	<0.5	1.5 mg/kg	114	50.0	150
EP075: 4.4`-DDE	72-55-9	0.5	mg/kg	<0.5	1.5 mg/kg	105	63.0	127

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP075I: Organochlorine Pesticides (QCLot: 6560793) - continued								
EP075: Dieldrin	60-57-1	0.5	mg/kg	<0.5	1.5 mg/kg	# 131	62.0	130
EP075: Endrin	72-20-8	0.5	mg/kg	<0.5	1.5 mg/kg	97.4	48.0	132
EP075: beta-Endosulfan	33213-65-9	0.5	mg/kg	<0.5	1.5 mg/kg	113	50.0	150
EP075: 4.4`-DDD	72-54-8	0.5	mg/kg	<0.5	1.5 mg/kg	98.1	63.0	129
EP075: Endosulfan sulfate	1031-07-8	0.5	mg/kg	<0.5	1.5 mg/kg	112	46.0	140
EP075: 4.4`-DDT	50-29-3	0.5	mg/kg	<0.5	1.5 mg/kg	98.9	5.50	156
EP075J: Organophosphorus Pesticides (QCLot: 6560793)								
EP075: Dichlorvos	62-73-7	0.5	mg/kg	<0.5	1.5 mg/kg	113	63.0	121
EP075: Dimethoate	60-51-5	0.5	mg/kg	<0.5	1.5 mg/kg	118	29.0	127
EP075: Diazinon	333-41-5	0.5	mg/kg	<0.5	1.5 mg/kg	128	62.0	128
EP075: Chlorpyrifos-methyl	5598-13-0	0.5	mg/kg	<0.5	1.5 mg/kg	97.0	50.0	150
EP075: Malathion	121-75-5	0.5	mg/kg	<0.5	1.5 mg/kg	104	50.0	150
EP075: Fenthion	55-38-9	0.5	mg/kg	<0.5	1.5 mg/kg	95.1	50.0	150
EP075: Chlorpyrifos	2921-88-2	0.5	mg/kg	<0.5	1.5 mg/kg	99.1	61.0	123
EP075: Pirimphos-ethyl	23505-41-1	0.5	mg/kg	<0.5	1.5 mg/kg	110	63.0	125
EP075: Chlorfenvinphos	470-90-6	0.5	mg/kg	<0.5	1.5 mg/kg	91.1	50.0	150
EP075: Prothiofos	34643-46-4	0.5	mg/kg	<0.5	1.5 mg/kg	111	58.0	126
EP075: Ethion	563-12-2	0.5	mg/kg	<0.5	1.5 mg/kg	96.2	55.0	131
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6560372)								
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	35 mg/kg	102	66.0	122
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6560792)								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	1671 mg/kg	109	70.0	111
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	2765 mg/kg	106	71.9	109
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	400 mg/kg	105	63.8	118
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6560372)								
EP080: C6 - C10 Fraction	C6_C10	10	mg/kg	<10	45 mg/kg	99.6	66.0	122
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6560792)								
EP071: >C10 - C16 Fraction	----	50	mg/kg	<50	2277 mg/kg	109	72.8	110
EP071: >C16 - C34 Fraction	----	100	mg/kg	<100	2369 mg/kg	100	67.8	114
EP071: >C34 - C40 Fraction	----	100	mg/kg	<100	126 mg/kg	102	50.3	123
EP080: BTEXN (QCLot: 6560372)								
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	2 mg/kg	104	72.0	122
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	2 mg/kg	101	75.0	119
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	2 mg/kg	99.6	73.0	121

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP080: BTEXN (QCLot: 6560372) - continued								
EP080: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	4 mg/kg	99.2	74.0	122
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	2 mg/kg	99.1	75.0	121
EP080: Naphthalene	91-20-3	1	mg/kg	<1	0.5 mg/kg	111	64.0	126

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG005(ED093)T: Total Metals by ICP-AES (QCLot: 6562865)							
EP2507168-001	GHD-QC14	EG005T: Arsenic	7440-38-2	50 mg/kg	103	70.0	130
		EG005T: Cadmium	7440-43-9	12.5 mg/kg	104	70.0	130
		EG005T: Chromium	7440-47-3	50 mg/kg	102	70.0	130
		EG005T: Copper	7440-50-8	50 mg/kg	99.7	70.0	130
		EG005T: Lead	7439-92-1	50 mg/kg	103	70.0	130
		EG005T: Nickel	7440-02-0	50 mg/kg	103	70.0	130
		EG005T: Zinc	7440-66-6	50 mg/kg	103	70.0	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 6562866)							
EP2507168-001	GHD-QC14	EG035T: Mercury	7439-97-6	1 mg/kg	81.5	70.0	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 6560371)							
EP2507168-002	GHD-QC15	EP074: Benzene	71-43-2	2 mg/kg	92.8	80.6	115
		EP074: Toluene	108-88-3	2 mg/kg	104	78.1	119
EP074E: Halogenated Aliphatic Compounds (QCLot: 6560371)							
EP2507168-002	GHD-QC15	EP074: 1.1-Dichloroethene	75-35-4	2 mg/kg	69.5	68.4	125
		EP074: Trichloroethene	79-01-6	2 mg/kg	97.7	77.4	119
EP074F: Halogenated Aromatic Compounds (QCLot: 6560371)							
EP2507168-002	GHD-QC15	EP074: Chlorobenzene	108-90-7	2 mg/kg	107	80.1	117
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 6560791)							
EP2507168-001	GHD-QC14	EP075(SIM): Acenaphthene	83-32-9	3 mg/kg	78.9	73.5	125
		EP075(SIM): Pyrene	129-00-0	3 mg/kg	101	70.8	125
EP075A: Phenolic Compounds (QCLot: 6560793)							
EP2507168-002	GHD-QC15	EP075: Phenol	108-95-2	1.5 mg/kg	98.0	61.5	143
		EP075: 2-Chlorophenol	95-57-8	1.5 mg/kg	86.8	59.6	144

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP075A: Phenolic Compounds (QCLot: 6560793) - continued							
EP2507168-002	GHD-QC15	EP075: 2-Nitrophenol	88-75-5	1.5 mg/kg	83.0	62.6	153
		EP075: 4-Chloro-3-methylphenol	59-50-7	1.5 mg/kg	89.0	63.2	141
		EP075: Pentachlorophenol	87-86-5	1.5 mg/kg	86.0	39.6	156
EP075B: Polynuclear Aromatic Hydrocarbons (QCLot: 6560793)							
EP2507168-002	GHD-QC15	EP075: Acenaphthene	83-32-9	1.5 mg/kg	97.4	68.0	140
		EP075: Pyrene	129-00-0	1.5 mg/kg	99.8	69.9	142
EP075D: Nitrosamines (QCLot: 6560793)							
EP2507168-002	GHD-QC15	EP075: N-Nitrosodi-n-propylamine	621-64-7	1.5 mg/kg	125	43.8	148
EP075E: Nitroaromatics and Ketones (QCLot: 6560793)							
EP2507168-002	GHD-QC15	EP075: 2.4-Dinitrotoluene	121-14-2	1.5 mg/kg	82.8	66.7	141
EP075G: Chlorinated Hydrocarbons (QCLot: 6560793)							
EP2507168-002	GHD-QC15	EP075: 1.4-Dichlorobenzene	106-46-7	1.5 mg/kg	88.9	52.5	139
		EP075: 1.2.4-Trichlorobenzene	120-82-1	1.5 mg/kg	93.7	64.0	140
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6560372)							
EP2507168-002	GHD-QC15	EP080: C6 - C9 Fraction	----	24 mg/kg	98.2	69.1	135
EP080/071: Total Petroleum Hydrocarbons (QCLot: 6560792)							
EP2507168-002	GHD-QC15	EP071: C10 - C14 Fraction	----	1671 mg/kg	109	64.7	126
		EP071: C15 - C28 Fraction	----	2765 mg/kg	105	61.7	124
		EP071: C29 - C36 Fraction	----	400 mg/kg	103	64.6	131
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6560372)							
EP2507168-002	GHD-QC15	EP080: C6 - C10 Fraction	C6_C10	29 mg/kg	95.6	69.1	135
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 6560792)							
EP2507168-002	GHD-QC15	EP071: >C10 - C16 Fraction	----	2277 mg/kg	108	64.7	126
		EP071: >C16 - C34 Fraction	----	2369 mg/kg	99.4	61.7	124
		EP071: >C34 - C40 Fraction	----	126 mg/kg	90.7	64.6	131
EP080: BTEXN (QCLot: 6560372)							
EP2507168-002	GHD-QC15	EP080: Benzene	71-43-2	2 mg/kg	98.7	76.4	118
		EP080: Toluene	108-88-3	2 mg/kg	108	67.4	112

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **EP2507168**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Perth
Contact	: GHD LAB REPORTS	Telephone	: +61-8-9406 1301
Project	: 12658388	Date Samples Received	: 05-May-2025
Site	:	Issue Date	: 13-May-2025
Sampler	: Zak L & Connor A	No. of samples received	: 3
Order number	: 12658388	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **For all regular sample matrices, where applicable to the methodology, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP075D: Nitrosamines	QC-6560793-002	----	**Methapyrilene**	91-80-5	347 %	4.00-190%	**Recovery greater than upper control limit**
EP075E: Nitroaromatics and Ketones	QC-6560793-002	----	**1-Naphthylamine**	134-32-7	144 %	5.90-80.0%	**Recovery greater than upper control limit**
EP075H: Anilines and Benzidines	QC-6560793-002	----	**3.3`-Dichlorobenzidine**	91-94-1	105 %	33.0-101%	**Recovery greater than upper control limit**
EP075I: Organochlorine Pesticides	QC-6560793-002	----	**Aldrin**	309-00-2	134 %	66.0-130%	**Recovery greater than upper control limit**
EP075I: Organochlorine Pesticides	QC-6560793-002	----	**Dieldrin**	60-57-1	131 %	62.0-130%	**Recovery greater than upper control limit**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
Soil Glass Jar - Unpreserved (EA055)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**----**	----	**----**	**09-May-2025**	15-May-2025	✓
EG005(ED093)T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved (EG005T)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	28-Oct-2025	✓	**12-May-2025**	28-Oct-2025	✓
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved (EG035T)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	29-May-2025	✓	**09-May-2025**	29-May-2025	✓
EP074A: Monocyclic Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP074B: Oxygenated Compounds								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP074C: Sulfonated Compounds								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP074D: Fumigants								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP074E: Halogenated Aliphatic Compounds								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP074F: Halogenated Aromatic Compounds								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP074G: Trihalomethanes								
Soil Glass Jar - Unpreserved (EP074)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	08-May-2025	✓	**08-May-2025**	08-May-2025	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075(SIM))								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**10-May-2025**	18-Jun-2025	✓
EP075A: Phenolic Compounds								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075C: Phthalate Esters								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075D: Nitrosamines								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075E: Nitroaromatics and Ketones								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075F: Haloethers								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075G: Chlorinated Hydrocarbons								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP075H: Anilines and Benzidines								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075I: Organochlorine Pesticides								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP075J: Organophosphorus Pesticides								
Soil Glass Jar - Unpreserved (EP075)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**09-May-2025**	18-Jun-2025	✓
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved (EP080)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	15-May-2025	✓	**08-May-2025**	15-May-2025	✓
Soil Glass Jar - Unpreserved (EP071)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**10-May-2025**	18-Jun-2025	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
Soil Glass Jar - Unpreserved (EP080)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	15-May-2025	✓	**08-May-2025**	15-May-2025	✓
Soil Glass Jar - Unpreserved (EP071)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**09-May-2025**	15-May-2025	✓	**10-May-2025**	18-Jun-2025	✓
EP080: BTEXN								
Soil Glass Jar - Unpreserved (EP080)								
GHD-QC14,	GHD-QC15	**01-May-2025**	**08-May-2025**	15-May-2025	✓	**08-May-2025**	15-May-2025	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (SIM)	EP075(SIM)	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	2	**50.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Organic Compounds	EP075	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Mercury by FIMS	EG035T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-AES	EG005T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Volatile Organic Compounds	EP074	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Total Metals by ICP-AES	EG005T	SOIL	In house: Referenced to APHA 3120; USEPA SW 846 - 6010. Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl2) (Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3)
TRH - Semivolatile Fraction	EP071	SOIL	In house: Referenced to USEPA SW 846 - 8015 Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C40. Compliant with NEPM Schedule B(3).
Volatile Organic Compounds	EP074	SOIL	In house: Referenced to USEPA SW 846 - 8260 Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3).
Semivolatile Organic Compounds	EP075	SOIL	In house: Referenced to USEPA SW 846 - 8270 Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM Schedule B(3).
PAH/Phenols (SIM)	EP075(SIM)	SOIL	In house: Referenced to USEPA SW 846 - 8270. Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	SOIL	In house: Referenced to USEPA SW 846 - 8260. Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. Compliant with NEPM Schedule B(3) amended.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	In house: Referenced to USEPA 200.2. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM Schedule B(3).
Methanolic Extraction of Soils for Purge and Trap	ORG16	SOIL	In house: Referenced to USEPA SW 846 - 5030A. 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids	ORG17	SOIL	In house: Mechanical agitation (tumbler). 10g of sample, Na2SO4 and surrogate are extracted with 30mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

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