



Site Audit Report

**Proposed Lot 301 in Lot 207 of DP 1265922 (Stage 3A)
3 Johnston Crescent,
Horsley Park NSW**

Prepared for

CSR Building Products Limited

James Davis

NSW EPA Accredited Contaminated Land Site Auditor

Accreditation Number: 0301

Final Report

August 2023

Report Reference: 600105_0301-2308

Report Title**Site Audit Report****Proposed Lot 301 in Lot 207 of DP 1265922 (Stage 3A)****3 Johnston Crescent,
Horsley Park NSW**

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Site Auditor: James Davis

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Site Audit Commissioned By: CSR Building Products Limited

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Executive Summary

This Site Audit Report and subsequent Site Audit Statement have been produced to document the findings of a Site Audit, conducted by James Davis of Enviroview Pty Ltd, a New South Wales Environmental Protection Authority (NSW EPA) Contaminated Land Accredited Site Auditor on the subject site identified as Stage 3A, being proposed Lot 301 in Lot 207 of DP 1265922 located at 3 Johnston Crescent, Horsley Park NSW.

The Site Audit has been conducted following a request from CSR Building Products Limited to undertake a Site Audit on the site and to determine in the Site Auditor's opinion whether the site is suitable for the proposed land use. It is understood that the site is proposed to be developed for continued commercial/industrial land use.

As the Site Audit is not commissioned to meet a specific requirement of a development consent or approval given under the *Environmental Planning and Assessment Act 1997* it has not been conducted as a Statutory Site Audit as defined by s 47(c) of the *Contaminated Land Management Act 1997*.

The objective and scope of the Site Audit was to independently review the assessment and validation works conducted at the site and the environmental consultant's reports that have been prepared for the site and to determine whether the site is suitable for the proposed land use. The site land use will remain unchanged; therefore, this Site Audit has been undertaken with consideration to commercial/industrial land use.

The outcome of the Site Audit is this Site Audit Report and subsequent Site Audit Statement (0301-2203), a copy of which will be attached to the back (following the appendices) of this report.

To achieve the objective of the Site Audit, the Site Auditor reviewed the relevant site assessment works undertaken as reported by the consultant together with a review of the remedial planning and site validation works completed. The Site Auditor has also completed a review of a works associated with the assessment of risk of potential landfill gas impact to the Site Audit area arising from a former landfill site located to the west of the Site Audit site and an Environmental Management Plan (EMP) for land fill gas that has been prepared for the former landfill.

The Site Audit assessed if the consultant's work complied with relevant procedures and guidelines and whether it provides a robust basis for determining whether the objective has been met regarding the suitability of the land for the proposed land use.

The Site Auditor has inspected the site and reviewed the relevant documents prepared by the contaminated land consultants relating to the works conducted at the site.

The investigation, assessment and validation work reported and reviewed are considered to have met the requirements of NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* and other guidelines approved under s.105 of the *Contaminated Land Management Act 1997* and the objectives of the Site Audit and the Site Auditor is satisfied that the assessment and validation works have been appropriately undertaken.

The NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* prescribe that during an assessment of the suitability of a site for an existing or

proposed land use in an urban context, Site Auditors should follow the decision-making process for assessing urban redevelopment sites provided in the guidelines.

The decision-making process prescribed in the NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* (NSW EPA, 2017) has been followed by the Auditor and the site is considered suitable for the proposed commercial/industrial land use. A risk assessment evaluated a low risk of landfill gas migrating from the former landfill onto the Site Audit area and no further on-site management will be required.

In conclusion, a Site Audit Statement will be issued certifying that, in the opinion of the Site Auditor that the site is suitable for commercial/industrial land use.

Acronyms and Abbreviations

ACM	Asbestos Containing Material
AF/FA	Asbestos Fines/Friable Asbestos
AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
BTEX	benzene, toluene, ethylbenzene, and xylenes
bgl	Below Ground Level
COC	Chain of custody (can also be contaminants of concern)
DA	Development Application
DEC	Department of Environment and Conservation (NSW)
DECC	Department of Environment and Climate Change (NSW)
DECCW	Department of Environment, Climate Change and Water (NSW)
DP	Deposited Plan
DSI	Detailed Site Investigation
HILs	health-based investigation levels
IA	interim advice
LOR	Limit of Reporting
m	Metre
MW	monitoring well
NEHF	National Environmental Health Forum
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NRMMC	Natural Resource Management Ministerial Council
NSW	New South Wales
OCPs	Organochlorine pesticides
OEH	The NSW Office of Environment and Heritage
OPPs	Organophosphorus pesticides
PAH	Polycyclic aromatic hydrocarbons
PID	Photoionisation Detector
RAP	Remedial Action Plan
RPD	Relative Per cent Difference
SAR	Site Audit Report
SAS	Site Audit Statement
SEPP 55	State Environmental Planning Policy (Resilience and Hazards) 2021
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
VOCs	Volatile organic compounds

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1 Introduction

1.1 Overview

This Site Audit Report and subsequent Site Audit Statement have been produced to document the findings of a Site Audit, conducted by James Davis of Enviroview Pty Ltd, a New South Wales Environment Protection Authority¹ (NSW EPA) Contaminated Land Accredited Site Auditor accredited under Part 4 of the *Contaminated Land Management Act 1997* as a Site Auditor.

The Site Audit has been conducted in accordance with the requirements of the *Contaminated Land Management Act 1997* (the 'Act'). The Act defines the Site Audit as follows:

"site audit" means a review:

- (a) that relates to management (whether under this Act or otherwise) of the actual or possible contamination of land, and
- (b) that is conducted for the purpose of determining any one or more of the following matters:
 - (i) the nature and extent of any contamination of the land,
 - (ii) the nature and extent of any management of actual or possible contamination of the land,
 - (iii) whether the land is suitable for any specified use or range of uses,
 - (iv) what management remains necessary before the land is suitable for any specified use or range of uses,
 - (v) the suitability and appropriateness of a plan of management, long-term management plan or a voluntary management proposal.

Furthermore, the Act provides the following definitions:

"Site Audit Report" means a site audit report prepared by a site auditor in accordance with Part 4 [of the Act].

"site audit statement" means a site audit statement prepared by a site auditor in accordance with Part 4 [of the Act].

The *Contaminated Sites: Guidelines for the NSW Auditor Scheme (3rd edition)*, (NSW EPA, 2017) describes the site assessment and Site Audit process where the consultant is commissioned to assess the contamination and the Site Auditor reviews the consultant's work.

¹ The NSW Environmental Protection Authority (NSW EPA) has undergone several name changes in the past; however certain statutory functions and powers have always and continue to be exercised in the name of the NSW EPA. The use of the names NSW Department of Environment and Conservation (NSW DEC), NSW Department of Environment and Climate Change (NSW DECC), NSW Department of Environment, Climate Change and Water (NSW DECCW), NSW Office of Environment and Heritage (NSW OEH) and NSW EPA in this report are used with reference to the name relevant at the time and context of the reference but are considered interchangeable and can be interpreted as one and the same.

1.2 Guideline Documents

Guidelines made or approved by the NSW EPA under s.105 of the Act at the time of the Site Audit include:

- Contaminated Land Guidelines: Assessment and Management of Hazardous Ground Gases, NSW EPA, 2019 (NSW EPA, 2019)
- Contaminated Sites: Guidelines for the vertical mixing of soil on former broad-acre agricultural land, NSW EPA, 1995 (NSW EPA, 1995)
- Contaminated Land Guidelines: Sampling Design, NSW EPA, 2022 (NSW EPA, 2022)
- Contaminated Sites: Guidelines for Assessing Banana Plantation Sites, NSW EPA, 1997² (NSW EPA, 1997)
- Contaminated Land Guidelines: Consultants Reporting on Contaminated Land, NSW EPA, 2020 (NSW EPA, 2020)
- Contaminated Sites: Guidelines for Assessing Former Orchards and Market Gardens, NSW DEC 2005 (NSW DEC, 2005)
- Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition), NSW EPA, 2017 (NSW EPA, 2017)
- Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination, NSW DEC, 2007 (NSW DEC, 2007)
- Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997, NSW DECC, 2015 (NSW EPA, 2015)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, August 2018), (ANZG, 2018) (except for the water quality for primary industries component, which still refer to the ANZECC & ARMCANZ 2000 guidelines)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, Paper No 4, 2000 (ANZECC/ARMCANZ, 2000) (primary industries only)
- Composite Sampling. Lock, W. H., National Environmental Health Forum Monographs, Soil Series No.3, 1996, SA Health Commission, Adelaide (NEHF, 1996)
- Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards. Department of Health and Ageing and EnHealth Council, Commonwealth of Australia, 2012 (EnHealth, 2012)
- National Environment Protection (Assessment of Site Contamination) Measure, National Environment Protection Council, 1999 (Amended May 2013) (NEPC, 1999, Amended 2013)

² The NSW EPA Sampling Design Guidelines have been recently updated in August 2022, however much of the assessment and validation works were completed under the requirements of the previous Contaminated Sites: Sampling Design Guidelines, NSW EPA, 1995 (NSW EPA, 1995)

- Guidelines for the Assessment and Clean Up of Cattle Tick Dip Sites for Residential Purposes, NSW Agriculture and CMPS&F Environmental, February 1996 (NSW Agr., 1996)
- Australian Drinking Water Guidelines. National Health and Medical Research Council and Natural Resource Management Ministerial Council, 2011 (NHRMC/NRMMC, 2011)

From time to time the NSW EPA may amend the guidelines made or approved under s.105 of the Act.

Several additional technical notes and guidance is also provided by the NSW EPA that may not be made or approved under the *Contaminated Land Management Act 1997* that may be relevant to the site contamination management, where relevant these have been considered and include the following:

- Guidelines for Implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation. NSW DECCW, 2009. (NSW DECCW, 2009)
- Technical Note: Investigation of Service Station Sites (NSW EPA, 2014a).
- Waste Classification Guidelines Parts 1-4 (Classifying Waste, Immobilisation of Waste, Waste Containing Radioactive Material, and Acid Sulfate Soils). NSW Environment Protection Authority, 2014 (NSW EPA, 2014b).

1.3 Site Auditor

James Davis of Enviroview Pty Ltd, is a NSW EPA Contaminated Land Accredited Site Auditor (NSW EPA Accreditation Number 0301) and conducted the Site Audit.

The Site Audit was initiated by a request from representatives of CSR Building Products Ltd who engaged the Site Auditor to undertake Site Audits across Stage 3 of the CSR Horsley Park site on the 12 May 2022.

1.4 Type of Site Audit

The purpose of the Site Audit is to provide an independent review of the assessment and validation works as presented in the consultant(s) reports. As the Site Audit is not a specific requirement of a development consent or approval given under the *Environmental Planning and Assessment Act 1997* or any other statutory notice or instrument it has not been conducted as a Statutory Site Audit as defined by s 47 of the *Contaminated Land Management Act 1997*.

1.5 Objective and Scope of the Site Audit

The objective and scope of the Site Audit is to independently review the environmental consultant's assessment and validation reports prepared for the site and to determine whether the site is suitable for the proposed land use. The proposed land use is defined as commercial/industrial for the purposes of this Site Audit. A closed landfill site, referred to as the former Camide Landfill, is located to the southwest of the Site Audit area. The potential for landfill gas migration from the landfill site onto the Site Audit area has been assessed as

part of the Site Audit with reports prepared for both the Site Audit area and the former landfill site reviewed by the Site Auditor in this Site Audit.

To achieve the aim of the Site Audit, the Site Auditor has visited the site and has reviewed the work undertaken as reported by the consultants and assessed whether the consultant's work complied with relevant procedures and guidelines and provides a robust basis for determining whether the land is suitable for the proposed land use. The outcome of the Site Audit is this SAR and subsequent conditional SAS, (SAS number 0301-2308) a copy of which is attached to the back (following the appendices) of this report.

1.6 Documents Reviewed

The following documents were reviewed as part of this Site Audit:

DLA Environmental Services (June 2013). *Phase 1 Preliminary Environmental Site Assessment, Lot 1 in DP 106143 CSR Building Products 327-335 Burley Road, Horsley Park*. Reference DLH1121_H0000033, dated June 2013. (DLA, June 2013)

DLA Environmental Services (September 2013). *Phase 2 Detailed Environmental Site Assessment, Lot 1 in DP 106143 CSR Building Products 327-335 Burley Road, Horsley Park*. Reference DLH1121_H0068, dated September 2013. (DLA, September 2013)

ERM (September 2019) Limited Detailed Site Investigation, Horsley Park – Stage 3 Development Area, Reference: 0449086_S009904, dated 13 September 2019. (ERM, September 2019)

ERM (November 2020). *Remediation Action Plan, 327-335 Burley Road, Horsley Park NSW 2175*. Reference S010173_R03.1, dated 19 November 2020. (ERM, November 2020)

Biogas Systems Australia (November 2020). *LFG Management Plan, Environmental Management Plan for Landfill Gas, Horsley Park Landfill*. Reference: 0103_RPT0076.D, dated 13 November 2020. (BSA, 2020)

ERM (August 2021). *Landfill Gas Risk Assessment, Horsley Logistic Park, 327-335 Burley Rd, Horsley Park NSW 2175*. Reference S011005_0565895, dated 10 August 2021. (ERM, August 2021)

ERM (April 2023). Validation Report, Stage 3A, 3 Johnston Crescent, Horsley Park NSW 2175. Reference 0449086_S011351, dated 28 April 2023. (ERM, April 2023)

1.7 Site Audit Inspections

While undertaking several Site Audits across the CSR Horsley Park there have been several inspections conducted. The site auditor is directly familiar and has viewed the areas of the site that this Site Audit relates.

1.8 Audit Correspondence

Correspondence in the form of Site Audit interim advice was issued regarding the Site Audit to clarify and request additional information and to provide guidance on the Site Audit requirements. Site Audit interim advice is provided in **Appendix A**.

1.9 Chronology of Site Assessment and Audit Works

The process of site assessment, Site Auditor review and preparation of final Site Audit Statement and report undertaken at the site has been summarised in the following.

Table 1-1 Chronology of Site Assessment and Audit Works

Date	Action
June 2013	A <i>Phase 1 Preliminary Environmental Site Assessment</i> (DLA, June 2013) was undertaken for the wider site area (inclusive of Stage 3A) by consultant DLA.
September 2013	Preparation of <i>Phase 2 Detailed Environmental Site Assessment</i> (DLA, September 2013) for the wider property (inclusive of Stage 3A) by DLA.
7 December 2018	<i>Addendum to the Remediation Action Plan: Bund Wall Remediation Strategy</i> prepared by consultant ERM.
20 December 2019	The <i>Remediation Action Plan</i> (RAP) (ERM, December 2019) was revised by consultant ERM. The RAP addressed both Stage 2 and Stage 3 areas.
15 August 2016	Engagement of James Davis of Enviroview Pty Ltd to conduct a non-Statutory Site Audit for the property (Site Audit is 0301-1619 completed for Stage 1 on 16 August 2019)
September 2016 to September 2021	Soil assessment and validation of the site is completed under the supervision of consultant DLA/ERM.
19 March 2018	Preparation of <i>Material Assessment and Importation Procedure</i> (DLA, March 2018). The consultant noted that this report was prepared to fulfil recommendations from the RAP (ERM, December 2019).
21 May 2018	Engagement of James Davis of Enviroview Pty Ltd to conduct a non-Statutory Site Audit of Stage 2B.
August to September 2018	Placement of site sourced materials into Dam 4 (Stage 2C).
January 2019	Remediation of bund wall and placement of remediated material in to Dam 4 (Stage 2C)
August 2019 to January 2021	Continued filling of Dam 4 with site sourced material and remediated material.
5 November 2020	Preparation of Site Audit Interim Advice (0301-1807-IA 04) providing feedback on the <i>Landfill Gas Risk Assessment</i> prepared by consultant DBD for the Stage 2 area and the <i>Environmental Management Plan</i> (EMP) prepared by Biogas Systems Australia following a review by Site Auditor James Davis.
13 November 2020	Finalisation of the updated EMP (BSA, 2020) by consultant BSA.
22 July 2021	Preparation of Site Audit Interim Advice (0301-2010 IA01) providing feedback on the <i>Landfill Gas Risk Assessment</i> prepared by consultant ERM following review by Site Auditor James Davis.
10 August 2021	Finalisation of <i>Landfill Gas Risk Assessment</i> (ERM, August 2021) by consultant ERM.
10 September 2021	Preparation of Site Audit Interim Advice (0301-2010 IA02) providing feedback on the revised <i>Landfill Gas Risk Assessment</i> and existing EMP (BSA, 2020) following review by the Site Auditor.
November 2021 to February 2022	Final filling to surface levels, grading and surface completion of Stage 2C
16 May 2022	Preparation of Site Audit Interim Advice (0301-2203 IA01) providing feedback on the <i>Validation Report</i> following review by Site Auditor James Davis.
25 May 2022	Final revision of <i>Validation Report</i> for Stage 2C by consultant ERM.
27 June 2022	Finalisation of <i>Validation Report</i> for Stage 2C with updated property identification following lot registration by consultant ERM.
28 June 2022	Preparation of a Site Audit Statement and Site Audit Report for Site Audit 0301-

Date	Action
	2203 conducted by James Davis of Enviroview Pty Ltd regarding the works conducted on the Stage 2C site and its suitability for the proposed land use.
February 2022 to December 2022	Bulk earthworks and remediation of Stage 3A
28 April 2023	Finalisation of <i>Validation Report</i> (ERM, April 2023) for Stage 3A with updated property identification following lot registration by consultant ERM.
2 August 2023	Preparation of a Site Audit Statement and Site Audit Report for this Site Audit 0301-2308 conducted by James Davis of Enviroview Pty Ltd regarding the works conducted on the site and its suitability for the proposed land use.

2 Site Description

2.1 Site Identification

A summary of the site identification details is provided in **Table 2-1**.

Table 2-1 Summary Site Detail

Street Address:	3 Johnston Crescent, Horsley Park NSW
Development Phase:	Stage 3A
Lot and DP	Part Lot 207 of DP 1265922 (proposed Lot 301 of DP 1244594)
Zoning:	IN1 – General Industrial under Fairfield Local Environmental Plan Amendment (Western Sydney Employment Area) 2009
Local Government Area:	Fairfield City Council
Site Audit Size:	9.45 Hectares

Located within **Appendix B** are plans that depict the site. The consultant's Figure 1 illustrates the location of what is referred to throughout the Site Audit as the Stage 3A area within the wider site. The former landfill, located to the south-west of the Stage 3A area, is also outlined.

The Site Audit area occupies a northern and central portion of the property at 327-335 Burley Road, identified as 3 Johnston Crescent, located within the suburb of Horsley Park. The site is located approximately 36 Km west-northwest of the Sydney central business district within the Fairfield City Council local government area.

2.2 Surrounding Environment

Surrounding land uses specific to the Site Audit area are:

- North – Redevelopment with Burley Road, Old Wallgrove Road, and commercial/industrial land use beyond (warehouse and logistics facilities)
- East – Stage 3B and 3C development area with the E2 conservation area and rural residential properties beyond
- South – Stage 2C and 2A development area with rural and rural residential properties beyond
- West – Stage 1 of the wider redevelopment area, former landfill south of Stage 1, and rural properties beyond

2.3 Topography and Hydrology

ERM (ERM, April 2023) reported that the Site Audit area lies at an elevation approximately 80 to 85 m Australian Height Datum (m AHD) and described the site as having an overall downwards gradient from east to west. The consultant noted Stage 3A was characterised by a series of water basins, material storage areas and the PGH brick factory. Over the course of development works this site has been excavated and sequentially filled with site sourced fill materials.

2.4 Geology and Hydrogeology

The consultant (ERM, April 2023) undertook a review of the 1:100,000 Penrith Geological Series Sheet 9035. The site is reported to be underlain by Bringelly Shale of the Wianamatta Group. The 1:100,000 Penrith Soil Landscape Map indicates the site is in an area of Blacktown Group soils. The consultant reported that there were no known occurrences of acid sulfate soils in the vicinity of the site. The consultant noted that owing to the quarrying activities and redevelopment works conducted at the site, the site has little resemblance to the previous natural soil landscape.

ERM (ERM, April 2023) undertook a search for registered groundwater monitoring bores within a 500-metre radius of the site using the NSW Office of Water Groundwater bore data. The search identified two registered monitoring bores approximately 400 m to the north-west of the site. The recorded groundwater level was 2.89 m bgl. With consideration of the topography and hydrology of the surrounding area, the consultant anticipated that groundwater flow across the site would be expected to flow in a west to north-westerly direction towards Ropes Creek.

As part of the Phase 1 assessment of the broader site, the consultant (DLA, June 2013) undertook a review of the Department of Infrastructure, Planning and Natural Resources (DIPNR) Salinity Potential in Western Sydney 2002 risk map. Groundwater in the general area of the site is classified as having a moderate salinity potential.

2.5 Audit Discussion of Site Description

The information provided by the consultant regarding the site condition and surrounding environment has been checked against and meets the requirements of NSW EPA Guidelines (NSW EPA, 2020). The information provided in the consultant's reports are also consistent with the observations made by the Site Auditor during the site inspections.

Overall, the information provided by the consultants in relation to site condition and the surrounding environment is considered adequate for the purposes of assessing the suitability of the site for the intended purposes. As such, in the Site Auditor's opinion the information provided meets the requirements of the Site Audit.

3 Site History

A review of the site's history was completed as part of the *Phase 1 Preliminary Environmental Site Assessment* (DLA, June 2013) for the wider site area, with Stage 3A occupying the north and central portion of the assessment area. Review of land title records by the consultant indicated that the site was registered as Crown Land prior to 1954. The site appears to have been privately owned for a period (1954 to 1960), until ownership was transferred to Booths Clay Industries Pty Ltd (1960), following which the site was used for commercial/industrial purposes changing ownership again in 1989 (EKI Pty Ltd) and 1995 (Monier PGH Holdings Ltd). The consultant completed a review of historical aerial photographs dating from 1947 to 2009. Aerial photographs confirmed commercial/industrial activities on the wider site between 1961 and 1970, particularly quarrying activities which continued beyond 2009. It is understood that the wider site has been primarily used for large scale quarrying, brick, and tile manufacturing since 1960 until recent times. Prior to its commercial use, the site comprised rural land. An assessment of the former landfill area to the southwest of the Site Audit site by BSA (BSA, 2019) confirmed that the former landfill was operated by a waste management contractor from May 1990 to February 1994. The landfill was capped and revegetated in 1995. Further assessment and remediation have been undertaken at the former landfill; however, this area falls outside of the Site Audit area. Relevant discussion of assessment of the former landfill area in relation to the Site Audit area have been addressed in **Section 5.5**.

3.1 Audit Discussion of Site History

The information required by NSW EPA (1997), regarding the site history, has been provided and meets the requirements of the Site Audit regarding the objectives of the Site Audit. Unfortunately, aerial photographs were not appended to the *Phase 1 Preliminary Environmental Site Assessment* (DLA, June 2013) for review and verification, however, this is not considered to impact upon the outcome of the Site Audit.

The site history information provided by the consultant has been checked against and meets the requirements of the guidelines made or approved by the NSW EPA.

The consultant also included a review of s 149 (now referred to as s 10.7) planning certificates issued by Council on 22 July 2009. The certificate did not indicate the presence of any notifications or matters arising under the *Contaminated Land Management Act 1997*. It was noted that the site is near a critical habitat, namely a core habitat for Cumberland Plain Endangered Ecological Community. This area of critical habitat is located to the southeast of the Stage 3A area Site Audit area.

The extent of site history information presented by the consultant is considered adequate for the purposes of identifying potential contamination issues at the site.

4 Preliminary Conceptual Site Model (CSM)

With respect to the Site Audit area, the consultant DLA/ERM confirmed that potential areas of environmental concern were identified from review of available desktop study information and observations made during a site walkover completed as part of the preliminary investigations at the site. These areas were also refined during site assessment and soil validation works (ERM, April 2023). Areas of concern were identified within the Stage 3 development area.

Contaminants of potential concern identified for assessment and validation of the various areas of the site included heavy metals, total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene, xylenes compounds (BTEX), pesticides (OCP/OPP), polychlorinated biphenyls (PCBs), and asbestos.

The potential for migration of landfill gas from the former Camide Landfill located to the west of the Site Audit area was also identified with the potential for landfill gases such as methane, carbon dioxide, carbon monoxide and hydrogen sulfide noted and assessed by consultant ERM (ERM, August 2021).

4.1 Audit Discussion of Preliminary CSM

The consultants identified potential contamination issues at the site based on the findings of desktop studies, site inspections and site assessment conducted. The potential contaminants identified are considered to have been suitably comprehensive noting the site location and history. Therefore, the Site Auditor is satisfied that the potential contaminants of concern identified were appropriate for the assessment of the site. The potential contaminants of concern were considered acceptable to enable assessing the suitability of the site for the intended land use and have met the objectives of the Site Audit.

5 Site Assessment

5.1 Overview of Site Assessment Activities

The following provides an overview of assessment activities undertaken at the site by consultant DLA at the site. A *Phase 1 Preliminary Environmental Assessment* and *Phase 2 Detailed Site Investigation* was prepared by the consultant with the objective being to assess for the likelihood of contamination to exist on the site and whether the site would be suitable for the continued commercial/industrial land use. The Phase 1 and Phase 2 assessments addressed the entire area of 327 – 335 Burley Road which includes the Site Audit area. As such, overviews of the early assessment works provided in the following sub-sections address the broader site, within which lies the Site Audit area. For clarity, the Site Auditor has referred to the term ‘broader site’ to clarify aspects of the assessment which relate to the wider site area. Specific information for the Site Audit area has also been included and identified where possible.

5.2 Phase 1 Preliminary Environmental Assessment

DLA undertook at *Phase 1 Preliminary Environmental Assessment* (DLA, June 2013) for the entire property located at 327 – 335 Burley Road, within which the Site Audit area occupies the central portion. The consultant noted the area of assessment was approximately 72 hectares in size. It was reported that the objective of the assessment was to undertake a review of all existing information on the site and assess the possibility for past and present site activities which may have caused contamination to soils or groundwater at the broader site.

At the time of the assessment in 2013, the broader site was being used for brick manufacturing and associated quarrying activities. Site features across the broader site included process plant, office and amenity buildings, raw material stockpile areas, a clay quarry, sedimentation dams, settling ponds and storage dams, and the former landfill. The consultant noted that the ground level across the assessment area had been modified with the formation of earthen bunds and excavation of quarry voids. A site plan prepared by the consultant illustrating the location of the various site features described in the *Phase 1 Preliminary Environmental Assessment* is presented in **Appendix C**.

As part of the review of site history, the consultant reported that the following available resources were reviewed:

- records available from Government and State agencies
- geological and hydrogeological maps
- historical aerial photographs

The consultant reviewed Fairfield City Council s 149 Certificate (now referred to as a s 10.7 planning certificate) for the entire Lot 1 DP106143. The s 149 Certificate confirmed the following (among other aspects):

- the land does include or comprise a critical habitat
- the land is not a conservation area
- an item of environmental heritage is not situated on the land

- no matters apply to this property under the *Contaminated Land Management Act 1997*

The consultant completed a search of WorkCover's Stored Chemical Information Database for the broader site which indicated that dangerous goods have been historically stored on the site under licence number 35/017021. WorkCover records indicated that six underground storage tanks (USTs) had been decommissioned at the site. Four of the USTs were removed from the site in 1994. Two tanks (21,000 litres (L) and 5,000 L) remain at the site abandoned in situ³. The consultant confirmed the tanks are located to the north of kiln No. 2 and between the front office and No. 6 dryer respectively. In the Phase 1 report conclusion the consultant notes that documents from 1973 and 1974 indicate the possibility of several USTs may remain undetected at the site with hand draw maps accompanying WorkCover records showing an additional 12 USTs at the site. No other documentation is available in relation to these USTs. An above ground diesel storage tank was identified during the Phase 1 assessment adjacent to the weighbridge (not within Stage 3A). The potential for abandoned petroleum infrastructure was possible to be within the Stage 3A Site Audit area.

The consultant undertook a search of all records pertaining to s 58 of the CLM Act and confirmed that the site, nor any sites in the vicinity, are not encumbered by any notices.

The following site features for the broader site were observed by the consultant as part of the Phase 1 assessment:

- An office building and factory are present, beside which finished products and raw materials are stored for use. The factory and raw material areas are surrounded by earthen bunds. It is understood that the purpose of the bunds is to delineate areas on-site and offer protections from potential noise and dust to surrounding receptors.
- USTs and an above ground oil storage tank were located to the north and east of the factory building, however, these have since been removed.
- A diesel AST is located on the northern part of the site near the buildings.
- The north-east corner of the broader site was the initial quarry area and has since been backfilled. The consultant noted that the backfill material may have comprised overburden generated from newer quarry areas on the site. The period for backfilling of this quarry area coincided with expansion of the office building and as such, the consultant noted that the same backfill material could have been used to fill and level location for the office area.
- The stormwater detention pond was formerly occupied by septic ponds which formerly treated the sewerage on-site. The replacement wastewater treatment system irrigates treated water onto a portion of land to the west of the factory.
- The existing quarry located in the southern portion of the site is disused and is occupied by a large deep void.

³ The consultant notes that anecdotal evidence indicates that this tank may have been removed however confirmation is not available.

The following potential sources of potential contamination were identified by the consultant:

- Imported uncontrolled fill material utilised on-site for levelling and backfill.
- Migration of contamination from off-site sources of contamination associated with neighbouring commercial and industrial activities (the Site Auditor notes that the consultant does not specifically identify the off-site areas of concern, however, does refer to the presence of Austral Bricks manufacturing facility adjacent to the site in early part of the Phase 1 report).
- Contamination associated with on-site commercial/industrial activities including chemical and oil storage, heavy metals associated with the use of metal oxides as colourants, waste products from the manufacturing process.
- Hydrocarbon contamination associated with the historical on-site storage of fuel.
- Presence of the former Camide Landfill (quarry void filled with non-putrescible waste) in the south-western portion of the site.

Areas of environmental concern noted by the consultant included:

- former USTs
- existing AST
- former oil and chemical storage areas
- the former Camide Landfill
- areas of uncontrolled filling including the filled former quarry area and earthen bunds
- dam sediments
- wastewater treatment system and disposal area
- former wastewater ponds and associated spoil

The consultant concluded that potential sources of land contamination exist at the site from its former industrial use, placement of uncontrolled fill and the storage of chemicals. It was noted that if future site assessments are to be undertaken, they should follow the most relevant land use criteria for industrial/commercial land use, which at the time of reporting of the Phase 1 assessment was NEPM (NEPC, 1999).

5.3 Phase 2 Detailed Environmental Site Assessment

DLA undertook a *Phase 2 Detailed Environmental Site Assessment* (ESA) (DLA, September 2013) of the broader site which included the Site Audit area. The soil investigation was undertaken in September 2013 and comprised the following:

- A desktop study reviewing available historical and publicly available records for the site (in the Phase 2 report, the consultant reproduced the Phase 1 assessment findings).
- A site walkover inspection to observe current site conditions and identify potential sampling locations.

- Advancement of soil sampling points which included test pit and borehole locations, with six boreholes converted to groundwater monitoring locations. Stockpile and bund soil samples were also collected. Several of the investigation locations were positioned within the Site Audit area.
- Collection of 213 fill and natural soil samples (including quality control samples), four groundwater samples, and 11 surface water samples.
- Sampling and laboratory analysis of select soil and water samples collected during the investigation works.
- Preparation of a report documenting the works.

To assist in determining the current contamination status of the site, the consultant adopted a combined systematic and judgemental investigation approach. Representative samples were collected from fill and natural soils in targeted potential contamination source areas and systematically across remaining areas of the site. The consultant reported that a total of 112 soil sample locations were advanced during the Phase 2 Assessment works however, limited detail was provided in relation to the method of investigation.

Review of the borehole logs provided in an appendix to the report indicate that 16 test pits (TP1 to TP16) were advanced to a maximum depth of 4.2 below ground level by means of an excavator. Bore logs were also provided for 57 borehole locations (BH1, BH3 to BH58), six of which were converted into groundwater monitoring bores (MW1 to MW6). Boreholes were advanced using a truck-mounted drill rig to a maximum depth of 14 m bgl. Summary information provided by the consultant in relation to the six groundwater monitoring wells indicated they were advanced to depths of between 5.4 m and 11.79 m bgl. The consultant noted that, as a minimum, each well reached at least a moisture layer in the soil profile if a water bearing layer or perched water table was not intercepted.

Within the report discussion, the consultant noted that 24 locations within bunds were sampled (Bund-1 to Bund-24). Five surface soil samples were also collected in addition to ten stockpile samples (SP1-1 to SP1-6, SP2-1 to SP2-4 and SP3⁴). The surface soil sample identities were not clearly annotated within the report or accompanying site plan, however, based upon laboratory analytical results it is understood the surface samples were named S1 to S5. All surface soil sample locations were not clearly shown on the site plan.

No details were provided in relation to the collection methodology for the 11 surface water samples (Dam-1 to Dam-11) or four groundwater samples (MW2, MW3, MW5 and MW6) collected for laboratory analysis during the works. While it is unfortunate that the sampling works were not more thoroughly reported upon, the omission of this information is not considered by the Site Auditor to impact the outcome of the assessment or Site Audit.

The investigation sample locations shown on the consultant's figure are included in **Appendix D**. The following is noted with respect to the consultant's investigation location plan:

⁴ The report indicates a total of 10 stockpile samples were collected however the site plan indicates 11 stockpile sampling locations.

- Two TP14 locations are shown on the site plan. This would appear to be a typographic error. Neither TP14 location is within the Site Audit area.
- Two BH41 locations are shown on the site plan. Neither of the BH41 locations is within the Site Audit area.
- Locations BH21 and BH42 appear to be omitted from the sample location plan.
- A borehole without a label is located within the Stage 3A area (located between BH14 and BH57).
- Locations S-runoff-1 (within Stage 3A) and S-runoff-2 were shown on the site plan but not discussed within the report. It is unclear if these locations were representative of soil or water sample locations as they are not included within the scheduled laboratory analysis attached to the Phase 2 report.

Of the investigation locations advanced, the following have been determined to be within the Site Audit area based upon the site plan provided by the consultant (as presented in **Appendix D**): BH3, BH14, BH15, BH22, BH23, BH24, BH25, BH26, BH43, BH44, BH45, BH46, BH 47, BH48, BH49, BH50, BH51, BH54, BH56, BH57, BH 58 SP1 and S-runoff-1.

One groundwater monitoring location – MW2 was positioned within the Site Audit boundary. Two dams were present within the Site Audit boundary was labelled as Dam 1, Dam 2, Dam 3, Dam 4, Dam 5, Dam 10, Dam 11 for the purpose of the investigation.

For the investigation works completed, soil samples were collected with samples typically collected from both fill and natural soil horizons. Test pits and boreholes were terminated in both fill and natural soils. Only selected samples were analysed. Soil samples were not screened for the presence of volatile organic compounds (VOCs) during the field works through use of 'headspace' readings and a photoionisation detector (PID). The consultant noted that, instead, all samples were analysed for TRH however, the Site Auditor notes that this does not appear to correlate with sample analysis as reported in the Phase 2 report. While inaccuracies may exist in relation to the assessment of TRH across all samples, the Site Auditor is satisfied that subsequent robust assessment and validation works, as reported, were undertaken for the Site Audit area to supplement these earlier assessment works.

Laboratory analysis of soil and water samples included heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc), TRH, BTEX, PAHs, OCPs, OPPs and PCBs. Not all analytes were scheduled on all samples. The primary laboratory utilised was Envirolab Services, Chatswood, while the secondary laboratory services were provided by SGS Pty Ltd, Sydney.

5.3.1 Soil and Groundwater Assessment Criteria

Assessment activities undertaken at the site compared analytical results against health and ecologically-based criteria available at the time of reporting. The assessment works compared soil analytical results to health-based investigation levels (HILs) for commercial/industrial land use (HIL-D), as included in the NEPM (NEPC, 1999, Amended 2013). The consultant did not adopt the HSLs from NEPM (NEPC, 1999, Amended 2013) and instead adopted criteria derived from the *Service Station Guidelines* (NSW EPA, 1994). No discussion was provided with respect to the application of ecological assessment criteria

(NEPC, 1999, Amended 2013), Direct Contact criteria for petroleum hydrocarbons (Friebel & Nadebaum, 2011), or Management Limits for petroleum hydrocarbons for commercial/industrial land use (NEPC, 1999, Amended 2013).

Groundwater analytical results were compared with *Water Quality Guidelines* 95 % and 90 % freshwater trigger values (ANZECC/ARMCANZ, 2000) and *Australian Drinking Water Guidelines* (NHRMC/NRMMC, 2004). Threshold levels for some hydrocarbon compounds were adopted from the *Service Station Guidelines* (NSW EPA, 1994). In the absence of Australian endorsed guidelines, Dutch Intervention Levels (Dutch Target and Intervention Values, 2000) were also utilised for the assessment of hydrocarbons.

While several of the criteria adopted during the early phases of assessment works are no longer current for assessment of investigations [e.g. *Service Station Guidelines* (NSW EPA, 1994)], the Site Auditor notes that they are considered broadly appropriate at the time the investigation work was completed, however, it is noted that the revised NEPM (NEPC, 1999, Amended 2013) assessment criteria were available at the time and could have been adopted by the consultant for the assessment of petroleum hydrocarbons. Overall, the selection of assessment criteria is not considered to impact upon the outcome of the Site Audit when considered in conjunction with subsequent robust assessment and validation works, which were undertaken for the Site Audit area to supplement these earlier assessment works.

The adopted criteria area presented in the consultant's summary tables of criteria provided in **Appendix E**. The consultant did not prepare comprehensive summary tables of soil and groundwater analytical results. Select tables of analytical results were prepared and included within the report text. These tables have been extracted and included in **Appendix E**.

5.3.2 Investigation Results

Site Observations

The consultant confirmed the soil profile across the site typically comprised predominantly grey/orange mottled clay underlain by weathered shale. It was noted that clay fill material has been emplaced throughout the broader site with large stockpiles formed to the centre of the site. Various earthen bunds are present around the broader site, including along the western boundary and just outside the southern boundary of the Site Audit area.

Visual or olfactory evidence was not specifically noted for investigation locations within the Site Audit area however, odours and green mottling was noted within proximity to the factory area in the central and east of the site. Hydrocarbon impacts were also observed in the vicinity of the above ground oil tank on the eastern side of the factory and at the storage tanks on the western side of the factory.

Review of the available bore log records for investigation locations advanced within the Site Audit area indicates a thin layer of clay fill or topsoil less than 1 m in thickness overlying natural clays in areas of the site beyond the quarrying activities.

The consultant reported depths to groundwater ranging from approximately 1.43 m to 4.81 m bgl in wells installed across the wider site. No discussion was provided in relation to potential groundwater flow directions.

Soil

The consultant prepared a summary table of selected soil analytical results for hydrocarbon detections reported for the wider site. Analytical results for locations within the Site Audit area were not tabulated. Review of the analytical results appended to the report and the consultant's discussion within the report text, confirm that detections of contaminants (heavy metals and PAH) were not reported more than the adopted health-based assessment criteria for the Site Audit area. Analysis for other contaminants of concern was not scheduled for samples collected from within the Site Audit area. Available analytical summary tables prepared by the consultant are provided in **Appendix E**.

Groundwater and Surface Water

The consultant prepared summary tables of groundwater and surface water analytical results for the wider site. These tables are reproduced in **Appendix E**.

With respect to groundwater results from the wider site, the consultant noted that concentrations of hydrocarbon compounds were reported in several wells (MW2 and MW3) but at concentrations less than the adopted investigation levels. Monitoring well MW2, located adjacent to the factory and former chemical/potential hydrocarbon UST area, reported exceedances of the adopted investigation levels for TRH (concentration of 6,240 µg/L compared to 600 µg/L) and naphthalene (concentration of 38 µg compared to 16 µg). Detections of PAH were only reported at MW2 with exceedances of naphthalene (38 µg), phenanthrene (15 µg) and anthracene (1 µg) reported when compared with criteria of 16 µg, 2 µg and 0.4 µg respectively. Surface water samples from the dams were not scheduled for TRH/BTEX analysis.

With respect to heavy metals, detections were reported for both groundwater samples and surface water samples with exceedances across the wider site including chromium, copper, lead, mercury, nickel, and zinc.

The consultant noted that the pH of the samples collected from Dam-7, Dam-8 and Dam-9 were elevated above the range of pH 6.5 to pH 8.5 set out in the Australian Drinking Water Guidelines. None of these dams are located within the Site Audit area.

5.3.3 Quality Assurance/Quality Control

The consultant has reported QA/QC on a broader site-wide basis, and it is therefore difficult to extract and provide a review of data relating to the Site Audit area in isolation. In addition, the Phase 2 report did not contain the QA/QC summary review within the report. The following information is based upon the QA/QC measures briefly reported in the main body of the Phase 2 report for the entire program of work undertaken across the wider site area which includes the Site Audit area.

The consultant collected ten soil intra-laboratory duplicates and ten soil inter-laboratory duplicate samples for select laboratory analysis. With consideration to the number of primary samples submitted for analysis (213 samples), a duplicate frequency of approximately 4.7 % each for both intra-laboratory duplicates and inter-laboratory duplicates was achieved.

In the absence of the QA/QC summary review, it is unclear if rinsate blanks were collected during the field investigation. The consultant did note that samples were collected with a

decontaminated trowel. No trip spikes or trip blanks appeared to be used during field works. There is no discussion on these quality control samples within the consultant's reporting.

The RPD calculations for duplicates was omitted from the report, however, the consultant did confirm that the results of the field and laboratory QA/QC procedures all complied with the pre-determined DQOs (the Site Auditor notes that the DQOs indicated that rinsate and trip blank and spike samples would be collected, and this does not appear to have occurred). The consultant noted that some heterogeneity was expected for the material type sampled and concentrations of contaminants. The Site Auditor notes that this is not uncommon with fill type materials.

It is anticipated that the consultant undertook a review of laboratory analytical reports and associated QC criteria (holding times, laboratory duplicates, spike recoveries, surrogate standards, and laboratory blanks) within the QA/QC review report which was omitted from inclusion in the Phase 2 report. While the detailed review completed by the consultant is not available, the consultant does note in their reporting that it is considered that the analytical data generated is of an acceptable degree of accuracy and precision for the purpose of assessing the soil quality on the site.

5.3.4 Conclusions and Recommendations

The consultant concluded that the sampling program was adequate to determine the contamination status of the site in accordance with guidelines at the time of investigation. It was noted that evidence of hydrocarbon contamination was identified at five investigation locations. PAH impacts were reported in isolated fill areas, with the consultant reporting these were likely due to the presence of asphalt for impacts reported in the bund material. The potential presence of a UST(s) was identified in the vicinity of the factory area – including within the Site Audit area.

A total of 24 soil sample locations, seven surface water sample locations and one groundwater well located in the Stage 3A area.

The following findings were noted specifically for Stage 3A:

- Total Recoverable Hydrocarbons (TRH) was detected in multiple boreholes adjacent to the brick factory where former and current Underground Storage Tanks (USTs) are located, however no exceedances of the commercial/industrial land use criteria were identified
- Hydrocarbon detections were noted within groundwater monitoring wells in the wider redevelopment area. Total TRH and Polycyclic Aromatic Hydrocarbons (PAH) exceedances of the nominated acceptance criteria were identified within MW2. This monitoring well is located adjacent to the factory and around former chemical storage and USTs (within Stage 3A)
- Minor metal detections were noted within the monitoring wells and surface water sampled from the four dams. These were not deemed to pose a risk to human health in their current state at the time of sampling.

Based on the findings, Areas of Environmental Concern (AECs) were identified and were located within the Stage 2 and Stage 3 areas. The AECs within Stage 3 were based on the identification of:

- Contamination associated with known UST locations (Stage 3A)
- Potential contamination associated with USTs in presently unknown locations (Stage 3A)
- Minor hydrocarbon contamination from on-site Above Ground Storage Tanks (ASTs) (Stage 3B)
- Identified B(a)P Toxic Equivalence Quotient (TEQ) contamination hotspot (Stage 3B)
- Contamination from former oil storage areas and associated service lines (Stage 3A and 3B)
- Surface water contamination in on-site dams (Stage 3A dams)

No comment was made by the consultant in relation to site suitability for requirement for future assessment or remedial planning.

5.4 Limited Detailed Site Investigation – Stage 3

The Limited Detailed Site Investigation (LDSI) (ERM, September 2019) was restricted to the accessible portions of the Stage 3 development area, an area of approximately 25ha comprising of the operational brick making factory, brick, and soil storage areas, as well as settling dams for process water. As the site was an operational factory during the LSDI works only part of the Site was available for purposes of investigation. The accessible portions of the site totalled 10.7ha, with the remainder classed as data gaps (DG) area for future assessment post demolition.

The investigation assessed soil, groundwater, surface water and dam sediments. Soil samples were collected in accordance with the NSW EPA Sampling Design Guidelines (1995), for the accessible areas. Contaminants of concern included hydrocarbons, heavy metals, and asbestos in the form of bonded asbestos containing materials (ACM) and asbestos fines/fibrous asbestos (AF/FA) in soils. Hydrocarbons, heavy metals, a range of physical parameters and microbiological concentrations were identified as potential contaminants of concern in water samples. The consultant's figures showing the areas of concern and sample locations is presented in **Appendix F**.

5.4.1 Soil Assessment

Based on the intrusive investigation of the Stage 3 development area, fill soils were observed in most test pits and boreholes sampled in the area. Fill identified included a variety of residual brick making materials, as well as silty clays with anthropogenic inclusions such as bricks, concrete, timber, metals, tiles. Bonded ACM fragments were visually identified within fill soils at locations TP8, TP9, TP120 and TP124 in the bund wall along the north-eastern site boundary. Bricks were noted to be used within fill materials at various locations adjacent to brickworks activities, however ACM was not visually identified within these locations. Natural soils comprised red, grey and orange clays with varying amounts of ironstone inclusions and light brown shales.

A total of 237 primary soil samples were collected for analysis from 129 sample locations on Site. In addition to the collect soil samples fragments of potential bonded ACM were collected from eight test pit locations and submitted for w/w% analysis. The consultant's

figures showing sample locations is presented in **Appendix F**. The consultant's tables of analytical results are presented in **Appendix G**.

All soil samples were analysed for Total Recoverable Hydrocarbons (TRH) and Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN). Laboratory results indicate:

- Four samples reported F1 fraction TRH above the Laboratory Limit of Reporting (LOR);
- Four samples reported F2 fraction TRH above the LOR;
- Twenty one samples reported F3 fraction TRH above the LOR;
- Eight samples reported F4 fraction TRH above the LOR;
- No samples reported Benzene above the LOR;
- No samples reported Toluene above the LOR;
- A single samples reported concentration of Ethylbenzene above the LOR;
- A single sample reported concentrations of Xylene above the LOR; and
- Two samples reported concentrations of Naphthalene above the LOR.

A single exceedance of the F2 fraction TRH management limit was reported in sample BH215_2. No other exceedances were reported for TRH or BTEXN in soils.

All soil samples were analysed for Polycyclic Aromatic Hydrocarbon (PAH) concentrations, including calculation of the Benzo(a)Pyrene Toxicity Equivalence Quotient (BaP TEQ). Four samples reported BaP TEQ above the LOR, with 13 samples reporting total PAH concentrations above the LOR. No reported concentrations of BaP TEQ or total PAH exceeded the adopted HIL or HSL criteria for the Site.

All soil samples were analysed for Organochlorine (OC), Organophosphate (OP) pesticides and Polychlorinated Biphenyls (PCB). No OP pesticides or PCB were reported above the LOR. Nine samples reported OC pesticides above the laboratory LOR. No reported detection of OC pesticides exceeded the relevant HIL for the Site.

All soil samples were analysed for eight heavy metals. Detections were observed for all heavy metals. No exceedances of the adopted HIL or EIL assessment criteria were observed.

Asbestos sampling was undertaken at all sample locations. Asbestos quantification works were undertaken in all 63 test pit locations with soil samples collected for asbestos analysis collected from all 63 borehole locations. Bonded ACM fragments were observed within eight of the test pit quantification samples with w/w% calculations indicating an exceedance of the commercial/industrial HSL in two samples (Samples TP8_4 and TP9_1.0).

Of the 126 soil samples collected, twelve sample reported the presence of either bonded ACM or asbestos fines (AF). Six samples reported AF to be present, five samples reported bonded asbestos fragments >7mm present and a single sample reported both AF and bonded ACM as present. All reported ACM concentrations in soil samples were compliant with the adopted HSL. A single sample (TP35_0.7) exceeded the adopted HSL criteria for AF.

5.4.2 Groundwater Assessment

Seven groundwater samples were collected from seven groundwater monitoring wells on Site. Three wells were installed as part of these DSI works with four wells pre-existing on Site. All groundwater wells were subject to the same laboratory analysis.

The wells on Site were surveyed by Mulgoa Quarries 26th August 2019. Top of casing (TOC) was surveyed relative to AHD. Standing water levels (SWL) were measured at the time of purging and sampling.

Figures showing groundwater contours and well locations are presented in **Appendix F**. The consultant's tables of analytical results are presented in **Appendix G**.

The results of the laboratory analysis reported BTEX and phenol in groundwater at concentrations below the laboratory limit of reporting.

Two groundwater samples (MW2A and MW7) reported TRH concentrations above the laboratory LOR. Sample MW2A exceeded the adopted Groundwater Investigation Levels (GILs) for F2 and F3 fraction TRH. Sample MW7 exceeded the adopted GILs for fraction F3 and F4 TRH. No other detections of TRH was reported within groundwater samples.

Detections above the laboratory LOR were reported for Ammonia, Nitrate, Nitrogen and Heavy Metals. Concentrations of nitrate and nitrogen were compliant with the adopted GILs for the Site.

All eight heavy metals were reported to be present with the exception of chromium, lead and mercury.

Reported concentrations were compliant with the adopted GILs with the exception of the following:

- Arsenic in sample MW2A;
- Cadmium in sample MW3A;
- Copper in samples MW3A, MW4 and MW7;
- Nickel in sample MW7; and
- Zinc in sample MW3A.

Concentrations of ammonia exceeded the GILs in all samples.

5.4.3 Dam Water and Sediment Assessment

A single sediment sample was collected from the edge of each of the seven dams on Site. All sediment samples underwent the same laboratory analysis. All laboratory results indicate compliance with the adopted HIL and HSL criteria.

A single surface water sample was collected from each of the seven dams on Site. All samples were subject to the same analysis.

The results of the laboratory analysis reported BTEX, TRH and phenol concentrations in surface water below the laboratory limit of reporting.

Two groundwater samples (MW2A and MW7) reported TRH concentrations above the laboratory LOR. Sample MW2A exceeded the adopted Groundwater Investigation Levels

(GILs) for F2 and F3 fraction TRH. Sample MW7 exceeded the adopted GILs for fraction F3 and F4 TRH. No other detections of TRH was reported within groundwater samples.

All seven surface water samples were subject to Faecal coliform and E.Coli coliform analysis. Laboratory results indicate two exceedances of the adopted E.Coli criteria, one in Dam 3 and the other in Dam 5. All samples complied with the adopted criteria for Faecal Coliforms.

Detections above the laboratory LOR were reported for Biological Oxygen Demand (BOD), Nitrogen, Total Suspended Solids (TSS) and Heavy Metals. All samples reported concentrations of nitrogen and BOD were compliant with the adopted Site criteria. All reported concentrations of TSS exceeded the adopted criteria of 40mg/L.

All eight heavy metals were reported to be present with the exception of mercury. Reported concentrations complied with the adopted criteria with the exception of:

- Cadmium in sample MD-SW;
- Chromium in samples MD-SW and Dam 5;
- Copper in samples MD-SW, Dam 2, Dam 3, Dam 4 and Dam 5; and
- Zinc in samples MD-SW and Dam 3.

5.4.4 Updated Conceptual Site Model

The CSM was updated using the results of the sampling and laboratory analysis undertaken as part of LDSI, to reflect the conditions known on the Stage 3 site.

Source of Contamination

The principal potential contamination sources are assumed to be associated with quarrying and brickmaking activities that occurred on Site. Based on the results of the investigation asbestos contamination within fill soils is present along with isolated hotspots of hydrocarbon contamination affecting both soil and groundwater appears to be present.

Nature and Extent of Site Contamination

Fill soils on Site reported the presence of both asbestos fines and bonded ACM. Locations with asbestos reported as present were clustered in the northwest of the Site, with most foreign materials observed also within this portion of the Site. Only two sample locations reported exceedances of the adopted asbestos HSL criteria, both located within the bund on the eastern side of the Site. Asbestos was reported as present at depths between 0.1m BGL and 7.5m BGL, with multiple detections of asbestos reported in sample locations TP8, TP9, TP120 and TP124, all located in the eastern bund.

The previous assessment concluded more groundwater assessment was required near location MW2.

Borehole BH215, which was converted into monitoring well MW2A, was in close proximity to the former MW2 location. Samples collected from BH215/MW2A reported TRH concentrations exceeding the adopted criteria in both soil and groundwater, indicating a localised TRH hotspot in the vicinity. Elevated TRH concentrations were also observed within monitoring well MW7, however TRH concentrations within monitoring wells EW1, EW2 and

EW3, located between monitoring wells MW2A and MW7 were not reported above the laboratory LOR, indicating TRH contamination was not widespread on Site.

Exposure Pathways and Potential Receptors

Samples reporting exceedances of the adopted Site criteria for asbestos were found at depths greater than 0.5m BGL. The reported TRH exceedance was located at a depth of 2m BGL. Groundwater concentrations exceeding the adopted criteria for TRH were reported at 2m and 9.8m BGL. No inhalation risk was reported present under a commercial/industrial land use scenario. Based on the depths of reported exceedances no exposure pathway exists between the reported contamination and potential receptors under the current Site land use. Possible exposure pathways may be developed during redevelopment works due to potential disturbance of contaminated material currently located at depth. Remediation may be required to close exposure pathways prior to the redevelopment works depending on the development design. The following consultant's table provides a revised summary of the CSM.

Table 5-1 Updated Conceptual Site Model Summary

COPC	Likely Source	Exposure Pathway	Receptors
Asbestos	Fill Material	Inhalation	Users, occupants and visitors of the site and neighbouring properties during fill disturbance activities.
Hydrocarbons	Former UST, Industrial processes or fill material	Inhalation and direct contact	Users, occupants and visitors of the site and neighbouring properties during fill disturbance activities.

5.4.5 Conclusions and Recommendations

No visual or chemical evidence of contamination was identified within the conservation area. Minor amounts of surficial rubbish were observed to be present. No further contamination investigation or remediation works are required within the conservation area.

Fill soils were identified to be present across much of the Site. Fill soils with large quantities of foreign materials and observed ACM were concentrated in the north-eastern portion of the Site.

Foreign materials were also observed within fill soils to the northwest of the active facilities; however, no asbestos was reported to be present within this area.

Seven areas of potential concern were identified based on visual observations and soil analytical results, further delineation of the extent of contamination required. These areas were noted as delineation areas (DL) (DL1 – DL7).

In summary:

- DL1 – DL2 and DL4 included asbestos and foreign materials detections and exceedances, requiring further investigation and potential remediation

- DL3 included TRH exceedances at approximately 2.5m bgl requiring further delineation and potential remediation
- DL5 – DL7 reported foreign materials exceedance requiring additional investigation and potential remediation.

Asbestos in Soils

Asbestos was observed or reported to be present within eight of the 126 sample locations. These sample locations are clustered in the north-eastern portion of the Site in both underlying fill and the bund surrounding the Site. The majority of observed foreign materials are also within this portion of

the Site. Two locations exceeded the adopted commercial/industrial land use criteria for bonded ACM with a single exceedance of the HSL for asbestos fines reported.

The consultant's figure provided in **Appendix F** shows asbestos detections.

An exceedance of the AF criteria was reported in test pit TP35 at a depth of 0.7m BGL. The underlying sample did not report AF above the LOR, with no noted ACM materials visible. Notable foreign materials were observed within test pit TP44 and borehole BH214, located in proximity to test pit TP35.

The samples reported as exceeding the ACM criteria, TP8_4 and TP9_1.0 were found at 4m and 1m BGL respectively. The overlying (1m and 2m BGL) and underlying (5.5m BGL) samples collected from sample location TP8 and the underlying (3m and 4m BGL) samples collected from sample location TP9 also reported bonded asbestos to be present, at concentrations compliant with the HSL.

Based on the laboratory asbestos quantification results, the depth at which the exceedances are located and the currently relatively undisturbed nature of the location the concentrations of asbestos present do not currently pose a risk to Site users. However, any excavation and earthworks within fill materials in the north-western portion has the potential to disturb asbestos containing materials.

Using observations of asbestos and foreign materials made during the investigation works and the results of the laboratory analysis four different areas of environmental concern (AEC) on the site have been determined. AECs DL1, DL2, DL4 and DL5 encompass areas of the Site where asbestos and/or foreign materials have been observed to be present. Further delineation works and possible management and materials handling works are recommended to reduce the potential for cross contamination during any earthworks on Site. A Remediation Action Plan (RAP) should be developed prior to any development works within these AECs.

Hydrocarbons in Soils

A single exceedance of the chemical HIL/HSL criteria was reported for the Site. No samples exceeded the adopted EIL/ESL criteria. Sample BH215_2 exceeded the management limit criteria for F2 fraction hydrocarbons. Land use compliant hydrocarbon detections were also reported to be present in both overlying and underlying samples at this location. Adjacent samples from sample locations BH215A, BH215B and BH215C did not report detections of hydrocarbons above the laboratory LOR indicating that the contamination location is most

likely an isolated hotspot. Previous reports have also identified hydrocarbon contamination within this vicinity. The contamination can possibly be attributed to previously existing UST infrastructure within the area. Due to the proximity of the building a data gap exists regarding the lateral extent of the hotspot in the direction of the main warehouse.

Based on laboratory results of the chemical contamination soil samples is limited to the isolated TRH hotspot around sample location BH215. The area surrounding this hotspot has been designated AEC DL3. Given the depth of the observed contamination an exposure barrier currently exists between the hotspot and Site users. Following the demolition of the current facility remediation works will be required for the identified hotspot, prior to development works in the area. Storm water lines and other potential drainage lines that could potentially transport TRH contamination from the building should be inspected and investigated during the hazardous material survey and demolition process.

Groundwater

Groundwater was encountered at depths between 1.6m and 9.8m BGL. Samples collected indicated elevated concentrations of arsenic, cadmium, copper, nickel and zinc. The elevated concentrations are expected to be representative of background concentrations, rather than associated with site specific activities.

Groundwater wells MW2A and MW7 reported concentrations of TRH, however concentrations did not pose an inhalation risk under the proposed industrial/commercial land redevelopment scenario. Groundwater well MW2A was converted from borehole BH215. BH215 also reported an exceedance of TRH within a soil sample collected from this location. Surrounding soil samples indicated that this contamination was most likely an isolated hotspot. Remediation of the identified TRH hotspot should be undertaken, following the removal of the source of TRH contamination it is likely that the reported groundwater exceedance will dissipate due to natural attenuation. Additional groundwater assessment may be required following remediation works.

Groundwater results indicated exceedances of heavy metals, thought to be indicative of background concentrations. TRH detections were also identified, thought to be associated with TRH impacted soil (MW2A / AEC DL3) and uncontrolled filling in the northeast corner of Stage 3 site near MW7 (in Stage 3B).

Dam Water and Sediment

At the time of assessment sampling within the dam and dam sediment indicates suitability of the dam waters to be used for dust suppression during development works. Elevated E.Coli concentrations were reported in two of the smaller dams, however exposure to ultraviolet light during application to land has the potential to reduce E.Coli concentrations. Elevated TSS concentrations have the potential to clog water pumping infrastructure utilised for these works. Further assessment of the water quality may be required at the commencement of works to assess the suitability of the waters for application to land. Flocking or other similar works may be required to make the water suitable for use. Shallow sediment sampling results indicate the sediment would be suitable to be allowed to dry prior to reuse on Site. Confirmation of land use suitability should be undertaken by inspection and sampling of deeper sediments following dewatering of dams. The current condition of dam water means it is unsuitable for discharge from the site, and further

assessment and treatment would be required should water be required to be discharged from Site in the future.

LSDSI Recommendations

Based on the findings of the investigation works completed and reported upon within the LSDSI report (ERM, September 2019), the consultant reported that within the context of a conceptual site model developed for the site, there is no SPR linkage under the current Site use. However, it was reported that the redevelopment works may potential establish a SPR linkage during or following the disturbance of contaminated material located at depth on the Stage 3 site including the area of Stage 3A.

With considering that reported observations of ACM and fill materials and an identified hotspot of TRH contamination located adjacent to the currently existing facility and with two AECs to the west of the facility the investigation concluded that the site (Stage 3) could be made suitable for the intended land use, consistent with “commercial/industrial land use” as defined in the NEPM (NEPC, 2013) following the development of a Remediation Action Plan that addresses the identified areas of environmental concern and appropriate validation works.

5.5 Landfill Gas Assessment

A *Landfill Gas Risk Assessment* (ERM, August 2021) was completed for the Stage 2 area by ERM with the report finalised in August 2021 following review by the Site Auditor. An overview of the landfill gas assessment is provided in the following sub-sections in relation to Stage 3A.

5.5.1 Objectives and Scope of Work

The objective of the *Landfill Gas Risk Assessment* (ERM, August 2021) was to assess the potential risks of hazardous ground gas to future commercial/industrial site users which have been identified at the adjacent former landfill located to the southwest of the Stage 3A area and establish the gas mitigation measures required for future construction on the site. A site plan illustrating the location of the former landfill relative to Stage 3A is provided in **Appendix B**.

The scope of work undertaken as part of the risk assessment process comprised:

- installation of 13 sub-surface gas monitoring wells
- undertaking four landfill gas monitoring events to measure the ground gas conditions over a variety of barometric pressures and climatic changes
- installation of a continuous gas monitor in a selected well for a period of 8 weeks
- compile a LFG Risk Assessment report in accordance with the relevant NSW Guidelines pertaining to hazardous ground gas conditions

5.5.2 Field Investigation and Sampling

To complete the landfill gas risk assessment, consultant undertook a field investigation and sampling program to supplement the historical data available for the site and address data

gaps identified by previous investigations. The activities undertaken as part of these works are summarised in the following subsections.

5.5.3 Well Installation and Monitoring

A total of 13 landfill gas monitoring wells were installed between 20th and 21st August 2020 along the boundary between Stage 2 and the former Camide Landfill. Wells were also located across the Stage 2A area with increasing distance from the landfill to assess the subsurface gas conditions across the entire Stage 2 area. Three wells were also located within the Stage 3 area where access allowed. The location of the wells is shown on Figure 2 in **Appendix K**.

The wells were drilled to depths between 4 and 6 m, aiming to represent the unsaturated zone below the proposed new buildings. The gas monitoring wells were considered of suitable depth to intercept landfill gas migrating from the landfill that could have potential to impact the proposed development.

Wells were constructed using a 50mm casing with machine-slotted u-PVC, and the annulus backfilled with sand to allow for infiltration of sub-surface gases. Each well was designed with a response zone (slotted interval) across the whole depth of the well, with length of plain pipe just sufficient to provide a good seal. The annulus above the screened interval was filled with bentonite pellets. All wells were fitted with landfill gas caps operating as airtight locking expansion plugs with the capability of connecting field instruments for gas sampling without removing the cap.

5.5.4 Monitoring Methodology

Spot Monitoring

Four sampling events of all 13 gas wells were conducted over an 11-week period between 11 September 2020 and 1 December 2020.

Measurements were taken using a GA5000 landfill gas analyser. The following measurements were recorded:

- Peak methane (CH₄) –the highest CH₄ concentration recorded during sample period.
- Stabilised CH₄ – measures the steady concentration of CH₄ following stabilisation.
- Peak carbon dioxide (CO₂) – the highest CO₂ concentration recorded during sample Zero flow and differential pressure reading on analyser.
- Stabilised CO₂ – measures the steady concentration of CO₂ following stabilisation.
- Minimum oxygen (O₂) –the lowest concentration of oxygen measured during the sample period.
- Stabilised O₂ – measures the volume of O₂ in gas well following purging of built-up gases in the head of the well, reflects the rate of O₂ production/infiltration into the well.
- Carbon monoxide (CO) – the stabilised CO concentration.
- Hydrogen sulfide (H₂S) – the stabilised H₂S concentration.

- Flow rate (L/hr) – measures the internal flow of air through the well into the instrument.
- Barometric pressure (mb) – records the barometric pressure as measured at the monitoring well.
- Relative pressure (mb) – records the difference in pressure between gases built-up in the well and the surrounding atmosphere.

Continuous Monitoring

Gas well location GM206 was selected for continuous monitoring using GasClam units.

Hourly gas data was collected for a continuous period of 8 weeks, except for a 2-day period due to maintenance requirements.

Weather Conditions Assessment

The consultant noted that in view of the relatively short sampling period, it was appropriate to consider how the sampling period is likely to represent the potential seasonal variation in weather conditions that might be experienced over a full year, and whether ‘worst-case’ conditions are reasonably represented.

ERM reviewed the meteorological information for the sampling period and considered the sampling dates were reasonably representative of a “normal” September to November conditions. The consultant noted that, as would be expected, the sampling conditions do not fully represent the hottest and driest conditions that are likely to occur over a full year. Lower soil moisture conditions may facilitate increased soil permeability for gas movement, although in the absence of any significant gas pressure, the difference in actual migration is likely to be minimal.

The NSW EPA Hazardous Ground Gas Guidelines (NSW EPA, 2019) recommend that worst-case atmospheric pressure can be estimated from the fifth-percentile three-hour pressure decrease rate for the site, based on a two-year dataset from the nearest BoM site with continuous pressure recording. Atmospheric pressure was falling between 9am-3pm on all sampling days, at rates between 0.37 – 1.23 hPa/hr. The fifth-percentile three-hour pressure drop across 2019-2020 at Badgerys Creek weather station was 1.02 hPa/hr and the monitoring was therefore completed on one occasion at worst-case pressure drop conditions. The consultant therefore considered that the pressure conditions during the monitoring period were sufficiently representative of worst-case.

5.5.5 Monitoring Results

Spot Monitoring

Spot monitoring was undertaken across four events on the 11th and 29th September 30th October and 1st December 2020.

The consultant reported the following results:

- Stabilised methane (CH₄) concentrations ranged between 0 and 0.5 % v/v.
- Carbon dioxide (CO₂) concentrations ranged between 0.8 and 24.8 % v/v.
- Carbon Monoxide (CO) ranged from 0 to 2 ppm.

- Hydrogen Sulfide (H₂S) ranged from 0 to 10 ppm.

The consultant noted that CO₂ readings were highest in the south-east area of the site, with GM209 recording the highest CO₂ readings in three out of four events and GM210 recording the highest reading in the remaining event

Methane was detected in four wells during the monitoring period – GM202, GM204, GM205 and GM302. GM204 and GM205 had methane detections only in the peak readings, and only on one occasion each, with stabilised readings of zero in all remaining events. GM202 and GM302 recorded stabilised methane detections of 0.1 and 0.5 % v/v respectively, on one occasion each, with the other events recording stabilised readings of zero.

Carbon monoxide (CO) and hydrogen sulphide (H₂S) results ranged between 0-4ppm and 0-2ppm respectively, with one reading of 10 ppm recorded for CO in GM209 the exception.

Flow rates were generally low across the site. Across the four monitoring events, flow rates ranged from between -6.5 L/hr to 0.4 L/hr. Wells located in the southwest displayed a greater negative flow than the rest of the site.

The tabulated data from the spot monitoring is included in **Appendix L** and depicted on the Consultant Figure 3 in **Appendix K**.

Continuous Monitoring

The consultant reported that over the eight-week monitoring period, carbon dioxide was detected at concentrations ranging from 2.0% to 20.7%, although it generally fluctuated between approximately 8% and 20%, with a few instances where isolated readings dropped into the 4-8% range. No methane detections were recorded over the monitoring period.

The tabulated data from the continuous monitoring is included in **Appendix L**

Dataset Reliability

The consultant undertook an assessment of whether the period of monitoring was sufficient to draw conclusions about the gas risk, and whether additional monitoring events would have any effect on the conclusions of the risk assessment.

It was noted that the zero to occasional low detection of methane, and the flow rates below 0.5L/hr were very consistent in the dataset. Carbon dioxide concentrations, [which drive the Gas Screening Value (GSV)], were highly variable as is demonstrated by the continuous monitoring data in GM206. The consultant considered it likely that the real range of CO₂ in most of the wells is likely to be the same as this. With a flow rate of 0.5 L/hr or below, a GSV of >0.7 (CS3) is not possible as the CO₂ concentration would have to exceed 100%. Therefore, ERM concluded that additional monitoring rounds were not considered likely to change the conclusions of the risk assessment.

5.5.6 Risk Assessment

The consultant completed a landfill gas risk assessment in accordance with NSW EPA (2019), with the focus of the assessment being the risk of sub-surface migration of landfill gas from the adjacent off-site former landfill to the adjacent (Stage 2) development area.

The Level 2 risk analysis and assessment considered both landfill gas concentrations and flow rates to define a Characteristic Situation (CS) for the site using a calculation of a GSV.

The consultant conservatively adopted the highest methane and carbon dioxide readings recorded during the spot monitoring events for the calculation of the GSV and CS.

The monitoring data indicated a maximum flow rate of 0.4 L/hr with a maximum carbon dioxide concentration of 24.8% and maximum methane concentration of 0.5%. The consultant calculated a GSV of 0.0992 (CO₂) and 0.002 (CH₄).

The consultant ERM reported that the calculation of the worst-case GSV utilised the CO₂ concentration from well GM209 (remote from the landfill boundary), and the flow rate from GM201 (near the landfill boundary). ERM considered the possibility that wells GM201-GM206, all installed close to the landfill, represent a different gas regime from the other wells on-site (i.e., 'potentially landfill influenced' versus 'not landfill influenced'). Calculating the GSV from these two sets of wells separately results in a GSV for the wells GM201 – GM206 of 0.068 (GM201 flow, GM203 CO₂) (or 0.083 if GM206 continuous data is utilised).

The remote wells provided a GSV of 0.0248 (utilising GM209 CO₂ and flow of 0.1 L/hr which is common to all four wells (GM207- GM210) in this zone). ERM subsequently considered that the monitoring data did not provide strong evidence that the gas regimes are different, and whether there is a real difference between a flow rate of 0.1 L/hr and a flow rate of 0.4 L/hr is uncertain. The consultant did note that the approach demonstrated that if there is any part of the site exceeding the CS1 threshold (0.07) it would be a limited area adjacent to the landfill.

Utilising the guidance values for gas protection presented in Table 8 of the NSW EPA (NSW EPA, 2019) guidance, the gas protection value of a buildings if located on Stage 2 would be zero and no gas protection measures would be required for the proposed development.

5.5.7 Discussion and Recommendations

The consultant provided an overview of the assessment activities completed. A Level 2 risk assessment was completed using both spot monitoring and continuous monitoring data collected from monitoring wells located within Stage 2 and Stage 3 areas of the site adjacent to the former landfill. Based upon the findings of the landfill gas risk assessment the consultant concluded:

- There is no significant migration of landfill gas from the landfill.
- The primary origin of the elevated carbon dioxide concentrations is natural organic material in the site fill.

The risk assessment considered the gas concentrations and flow rates, and calculated Gas Screening Values of 0.083 (CS2 'low risk') for the site area close to the landfill boundary, and 0.248 (CS1 'very low risk') for the remainder of the site. In accordance with the NSW EPA Hazardous Ground Gas Guidelines (NSW EPA, 2019), ERM has considered the risk together with the lines of evidence for the source and migration potential of the gas and concluded that a 'very low risk' classification is the most appropriate for the entire site. Based on the above, gas protection measures are not required for proposed development of the Stage 3A site.

5.6 Audit Discussion of Investigation Works

Investigation Sampling

A Phase 1 (DLA, June 2013) and Phase 2 Assessment (DLA, September 2013) has been undertaken across the broader site, with observations and investigation locations advanced within the Site Audit area. In addition, a limited DSI was also conducted for the Stage 2 and Stage 3 site that included the Stage 3A area.

Sampling locations were a combination of systematically and judgementally located in areas of potential concern at the broader site.

It is considered a reasonable number of investigation locations were advanced within the areas of concern within the Site Audit area considering the previous use of the Site Audit area.

The suite of laboratory analysis for the Site Audit area provides sufficient analytical data to give an adequate assessment of the site contamination status.

The investigation works are supplemented and supported by information gathered during the subsequent material assessment and validation phases of work undertaken in the Site Audit area. As such, the limitations in coverage across the Site Audit area during historical investigation activities does not impact upon the outcome of this Audit.

Quality Assurance/Quality Control

The consultant utilised the seven-step DQO process as required by the NSW EPA guidelines for the Site Audit scheme (NSW EPA, 2017) during the assessment of the site.

Data Quality Objectives are a planning tool that is an independent process from the Quality Assurance/Quality Control (QA/QC) processes that are standard in both investigation and validation reports. The DQOs are specific to each project/package of work and should be completed prior to any fieldwork to assist in development of an optimal sampling analytical and quality plan to reach the assessment and project objectives most effectively.

DQOs have been established during the assessment works undertaken at the site by consultants. Overall, the details of the DQOs conducted across the works completed at the site are sufficient and meet the objectives of this Site Audit.

However, unfortunately due to the omission of an appendix to the Phase 2 report (DLA, September 2013), the consultant did not provide a discussion on the adopted field and laboratory QA/QC program adopted as part of the investigation works.

The QA/QC assessment and interpretation was generally found to be adequate. Sufficient inter- and intra-laboratory duplicate samples were collected and analysed as part of the overall site investigation program for a range of key contaminants with a frequency of just under 5 % (4.7 %) achieved for both intra- and inter-duplicates as part of the Phase 2 Assessment across the wider site. The calculated RPDs were not tabulated and included in the Phase 2 Assessment report for review due to an omission in report appendices.

It is unfortunate that rinsate samples, trip spike and trip blank samples did not appear to be collected across all programs of investigation. The consultant noted that adequate decontamination procedures were in place, however, it would have been beneficial to have collected additional QA/QC samples to support the veracity of this statement. Chain of custody documentation was provided with the investigation reports for most laboratory

batches submitted to the nominated laboratories. Several chain of custody records were omitted. While this is unfortunate, it is not considered to impact the outcome of the reported assessment works or Site Audit.

Some discussion of laboratory QA/QC results is provided by the consultant, and where available laboratory QA/QC information has been appended to the report in addition to the laboratory analytical reports. In general, the laboratory QA/QC results indicate that the laboratory analytical program was achieving adequate levels of precision and accuracy during the time when samples from the site were being analysed. As such, the sampling, analytical and quality protocols undertaken by the consultant were considered satisfactory and the data is reliable for the purpose of assessing the contamination status of the site for the proposed land use.

Overall, the Auditors review of the QA/QC measures employed by the consultant and the laboratory was found to provide adequate information for the purpose of characterising the site.

Site Criteria

The assessment criteria utilised for the assessment for the site by DLA (September 2013 and February 2018) were primarily derived from the NEPM (NEPC, 1999, Amended 2013) and ANZECC/ARMCANZ (2000) and are considered appropriate for the purpose of the assessment works. It is noted that the Phase 2 Assessment (DLA, September 2013) adopted *Service Station Guidelines* (NSW EPA, 1994) for the assessment of potential petroleum impacts. While this was not ideal given the availability of NEPM HSLs (NEPC, 1999, Amended 2013) at the time of reporting, the Site Auditor does not consider this to impact the outcome of the Site Audit given the extent of subsequent assessment completed at the site.

It is noted that the Phase 2 Assessment did not assess analytical soil results against ecological assessment criteria (NEPC, 1999, Amended 2013), Direct Contact criteria for petroleum hydrocarbons (Friebel & Nadebaum, 2011), or Management Limits for petroleum hydrocarbons for commercial/industrial land use (NEPC, 1999, Amended 2013).

Investigation Results

The consultant unfortunately did not consistently provide tables summarising the soil and groundwater laboratory results from the Phase 2 investigation undertaken of the broader site. The Site Auditor reviewed the relevant laboratory analytical data for investigation locations within the Site Audit area and found the results to be consistent with those reported by the consultant. Where available, summary tables of data reported by the consultant are provided in **Appendix E**. The laboratory procedures were appropriate for the identified potential contaminants of concern.

The site plans provided by the consultant identified the sampling locations relevant to the main site features such as the existing buildings, boundaries, and roads. The north arrow appears to be correctly orientated in the sample location plan provided in the report.

The conclusions reached by the consultants regarding the site assessments are considered appropriate given the data obtained from the site. The Phase 2 soil investigation did not identify any concentrations of contaminants of concern in the Site Audit area.

The consultant provided details of a CSM which was developed based upon available background information.

Groundwater assessment (DLA, September 2013) had identified the presence of nitrogen and phosphorus more than the adopted threshold criteria within the broader site. Elevated concentrations of heavy metals were also reported more than the adopted threshold values; however, the consultant considered these concentrations to be consistent with background metal concentrations. Detections of nitrogen and phosphorus were identified in groundwater from the northern portion of the broader site. No visual evidence of pollution from nitrogen or phosphorus in the form of algal blooms or and eutrophication was reported by the consultant.

The Site Auditor concurs that the reported groundwater detections are not considered to represent a risk to human health or the environment. The nearest ecological receptor is located about 850 m off-site, and on-site groundwater uses are not reported. It is the Site Auditor's opinion that with the removal of the infrastructure located to the north of the site, the site has effectively removed the source of the reported nitrogen and phosphorus detections and the levels of both will reduce over time.

Groundwater samples from MW 2 within the Site Audit area and reported to be in proximity to petroleum storage infrastructure, however these were below relevant investigation levels.

In summary, the soil investigations conducted within the Site Audit area did not identify impacts exceeding the assessment criteria, although it is noted that the area is utilised for the stockpiling of materials from other areas of the site. Detections of heavy metals, phosphorus, and nitrogen as well as hydrocarbons have been reported in groundwater; however, the Site Auditor considers that the reported groundwater conditions do not affect the suitability of the site for the proposed land use. The conclusions reached by the consultant regarding the site assessment are considered appropriate given the data obtained from the site.

Landfill Gas Risk Assessment

Assessment of landfill gas at the former Camide Landfill has been undertaken as part of the Landfill Closure Plan (LCP) and EPL for some time. Although the *Landfill Gas Risk Assessment* (ERM, August 2021) did not include a detailed review of previous landfill gas monitoring undertaken at the site, the data collected by ERM for the risk assessment generally supports the previous dataset, investigation findings and risk assessments conducted (by ERM and others) and previously reviewed by the Site Auditor. The validation of the Stage 3A area is contingent on the Land Fill Gas Risk Assessment due to the proximity of Stage 3A to the former landfill.

The landfill gas monitoring network installed as part of the current works provides acceptable coverage along the western site boundary of Stage 2. The monitoring network provides data both along the landfill/Stage 2 boundary as well as across the Stage 2 area (increasing distance from landfill). While the focus of the assessment was Stage 2, the data is applicable to an assessment of Stage 3, lying to the north of Stage 2 and not immediately adjacent to the former landfill.

The landfill gas monitoring program performed by ERM comprised sub-surface monitoring of the newly installed monitoring well network. This program of monitoring incorporated both spot monitoring of gas wells and continuous of one selected well.

The data collected as part of the ERM field investigations was utilised to prepare the CSM for the site and evaluate potential landfill gas risk. The consultant has identified the presence of landfill gas (methane and carbon dioxide) at the site. Detections of carbon dioxide have also been reported within wells located across the Stage 2 development area and were attributed to the presence of organic matter within the fill materials across the site.

A GSV was calculated for wells along the Stage 2 boundary using both the spot monitoring data and continuous monitoring data. A CS of 1 (very low risk) was determined for the data.

It is anticipated that this protection value would be met through the proposed development incorporating reinforced concrete foundations.

The consultant provided tables that summarised the monitoring results. These summary tables have been presented in **Appendix J**.

The site plans provided by the consultant identified the sampling locations relevant to the main site features and site boundary. The north arrow appears to be correctly orientated in the sample location plan provided in the report. Available sample location plans have also been presented as appendices to this SAR.

The landfill gas risk assessment has identified a low risk of landfill gas migration from the former Landfill onto the Stage 3A Site Audit area. There are no building protection measures required for development in the Stage 3A. The Site Auditor agrees with the consultant's findings in relation to the former Landfill.

6 Remediation Planning

The remedial strategy for the broader area (both the Stage 2 and Stage 3 areas) was initially presented in a RAP prepared by consultant DLA in 2014 (DLA, December 2014). The remedial approach was subsequently refined through addendums and revisions of the RAP as additional investigations across those areas of the site have been undertaken and the remedial requirements have evolved.

A revision to the RAP (ERM, November 2020) was prepared for the broader site (327 – 335 Burley Street) with the focus of the remedial strategy for areas of concern within the Stage 3 development area. The Site Auditor has considered the RAP (ERM, November 2020) and the specific remediation and validation measures proposed for the Site Audit area as identified and summarised in the following subsections.

6.1 Remediation Objectives

The consultant stated that the remediation objectives as stated in the RAP was to set remediation goals and document the management procedures and environmental safeguards to be implemented to ensure the site will be rendered suitable for the proposed land use (commercial/industrial) and will pose no unacceptable risk to human health or the environment.

6.2 Remediation Options

In accordance with the Site Auditor Guidelines (NSW EPA, 2017) and the referenced schedule of the NEPM (NEPC, 1999, Amended 2013), soil remediation and management are implemented in the following preferred order:

1. on-site treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level
2. off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level
3. consolidation and isolation of the soil on-site by containment within a properly designed barrier.
4. removal of contaminated soil to an appropriate site or facility, followed where necessary by replacement with clean fill

The consultant (ERM, November 2020) provided discussion regarding the treatment options from the Site Auditor Guidelines (NSW EPA, 2017) which outlines preferred remediation strategies.

With evaluation by the consultant, a remedial strategy was identified for implementation at the site. The proposed strategy comprised excavation and classification of material. Where material was deemed to be suitable, beneficial reuse on-site. Unsuitable material would be taken to a holding area within the residual Stage 3 area (Stage 3C) for placement into an engineered containment cell to be constructed in that area.

6.3 Proposed Remediation Works

The consultant presented a listed summary of site contamination/areas of environmental concern identified during the Phase 2 environmental assessment of the broader site. The

following areas of concern were detailed by the consultant in the RAP as part of their review of the broader site conditions. A site plan prepared by the consultant illustrating the location of areas of environmental concern is provided in **Appendix H**.

- *“Two missing USTs and tank pits at the northern side of the factory;*
- *The presence of a BaP TEQ and PAH concentration hotspot in TP3 at a depth of 0.5m;*
- *Aged oil observed on the eastern side of factory at BH51 in former oil storage area;*
- *The hydrocarbon contamination located on the western side of factory (with possible UST) in the location of BH24 and BH25, including the potential of hydrocarbon contamination of groundwater in the vicinity;*
- *The presence of the AST and minor elevated hydrocarbon concentrations within one sample at a depth of 0.3 m;*
- *The presence of large bunds around the site with potential for ACM to be present, (this would be dealt with as an unexpected find as no ACM was observed or located during investigation);*
- *The pH of dam surface water is outside of the criteria range;*
- *The heavy metals within water of Dams 1-5; and*
- *Sediments within the dams investigated following dewatering of dams”.*

There were no areas of concern identified within the Site Audit site, however, stockpiles of fill material were present that required validation and management in accordance with the requirements of the RAP.

The consultant also noted that given the site’s history of use and disturbance of terrain with the movement of landforms and importation of materials, there is a possibility that not all contamination has been identified or delineated at the site. It was reported that remediation would be completed in a precautionary manner with appropriate management of potential areas of unidentified contamination not previously encountered during investigation works at the site.

The consultant provided details with respect to the proposed remedial works including site set-up and management during the activities. Key aspects of the proposed works relevant to the Site Audit area included:

Site Establishment

- establishment of all necessary plant and equipment
- site set-up including work areas
- establishment of Site Environmental Monitoring Program and environmental protection measures

Site Pre-Works

- demolition of all existing structures on-site
- removal of overlying hardstand

- construction of bunded and hardstand designated treatment areas to preclude run-off onto the surrounding site

Remediation of Surface Water and Sediment Contamination

The consultant noted no further remediation action was considered necessary for the dam water as it was not proposed for discharge off-site. It was noted that the dam water was transferred between dams to reduce suspected sediments prior to being used in the factory where that water was used for dust suppression.

It was noted that further assessment of dam sediment would be undertaken following future dewatering of the dams.

Groundwater Contamination

The consultant noted the hydrocarbon impacts had been identified in groundwater monitoring wells located within the site. The consultant reported that a Groundwater Monitoring Program would be developed separately to the RAP to address potential management or remediation requirements for groundwater. It is unknown if this plan was prepared, and the need for this is to be assessed in the remediation validation.

6.4 Proposed Remediation Criteria

It was proposed that the site is developed for ongoing commercial/industrial land use. The soil criteria proposed by the RAP (ERM, November 2020) to guide the remedial works for the site were a combination of the HILs for commercial and industrial land use (HIL-D) and the HSLs for vapour intrusion for commercial/industrial land use for clay soil type (HSL-D) as set out in NEPM (NEPC, 1999, Amended 2013). It was proposed that Management Limits for petroleum hydrocarbons for commercial/industrial land use for fine soil types would also be adopted.

With respect to asbestos impacts, the HSLs for asbestos in soil for a commercial/ industrial setting were adopted from the NEPM (NEPC, 1999, Amended 2013).

The RAP (ERM, November 2020) stated that EILs and ESLs for fine soil types for commercial/industrial land use would be adopted from NEPM (NEPC, 1999, Amended 2013).

With respect to aesthetics, the consultant noted the following considerations should be considered for remediation and validation of the site with respect to the upper 1 m of soil:

- no staining
- no odour
- <5 % anthropogenic material

6.5 Proposed Validation Program

The consultant provided a general validation approach for the remediation works.

DQOs were not developed as part of the RAP.

The following areas were noted as requiring validation within the Site Audit site:

- eastern bund wall
- stockpiling areas

- asbestos treatment area (ATA)
- any additional potential unidentified contamination source areas

The consultant confirmed that validation would comprise visual inspection and soil sampling with laboratory analysis.

The RAP (ERM, November 2020) required that a validation report be prepared documenting works undertaken and results of the validation testing.

6.6 Site Management

The consultant provided a Site Environmental and Remediation Works Management Plan as an appendix to the RAP. The plan included site management provisions to reduce the impact of the remediation works on the remediation workforce and surrounding environment (including neighbouring properties).

6.7 Contingency Plans

The contingency plan provided in the RAP (ERM, November 2020) presented procedures for dealing with unexpected or unidentified contamination in soil and insufficient containment cell size or design.

6.8 Material Assessment and Importation Protocol

The assessment of materials encountered during cut-to-fill works was outlined in a *Material Assessment and Importation Protocol* (MAIP) (DLA, March 2018). The MAIP was prepared to document the material assessment protocol and procedures to be undertaken to confirm material suitability for beneficial reuse/retention on-site.

With respect to assessment and on-site reuse of materials, the MAIP noted the following:

- No potentially contaminated material will be reused on-site without prior approval from the Site Auditor and Local Council; and
- Isolation and investigation of the excavation area will occur upon identification of foreign materials such as bitumen, steel, or household waste.

The MAIP proposed sampling of on-site soils at a rate of one sample per 1,000 m³ with samples collected from in situ locations or existing stockpiles. Soil samples are to be scheduled for analysis for contaminants of concern including heavy metals, TRH, BTEX, PAH, OCP, PCB, asbestos, and foreign materials. It was noted that materials would also be subject to aesthetic assessment. Soil analytical results would be assessed against commercial/industrial land use criteria set out in NEPM (NEPC, 1999, Amended 2013). Daily checks sheets outlining the supervision and quality of soils encountered on-site are to be prepared with documented information including date, personnel details, material description, stockpile origin, placement location, visual description of material and quantity. It was reported that no material would be reused on-site without authorisation of the nominated environmental consultant and Site Superintendent through written confirmation. A non-compliance procedure was set out for the management of soils determined not to be suitable for reuse on-site.

Material importation procedures and controls were also set out in the MAIP with import material to comprise validated VENM and excavated natural material (ENM) only. Prior to acceptance of import material, classification and validation of the proposed imported material is required. VENM classification requirements included a review of source site information, a detailed description of the import material, sampling, analysis, and assessment of analytical results. ENM classification requirements were as set out in the Excavated Natural Material Order 2014.

6.9 Audit Discussion of the Remediation Action Plan

Based on the information contained in the consultant's RAP (ERM, November 2020) the Site Auditor finds that the proposed remediation:

- is technically feasible
- is environmentally justifiable given the proposed development activities
- the proposed validation sampling plans are suitably comprehensive to ensure contamination above the remediation criteria is appropriately removed and managed

The RAP (ERM, November 2020) identified the areas of contamination located because of the previous assessment works at the site that would be subject to remediation. It is noted that none of the areas of concern were located within the Site Audit area, however, the Site Audit area did contain stockpiles of fill material requiring validation and management. Appropriate measures were also outlined in the RAP if unidentified or unknown contamination is found during future works within the Site Audit area.

General requirements for the validation of the remediation program were provided within the RAP and Addendum with a recommendation for the number of validation samples to be determined during the actual works with consideration to the size of the validation surface and requirements of current relevant guidelines. It is anticipated that a robust validation sampling strategy can be further developed and implemented by a qualified environmental professional engaged to complete the validation phase of works based upon the information presented in the RAP and Addendum.

With regards to the proposed validation criteria, appropriate and currently endorsed validation criteria were proposed.

It is the Site Auditor's opinion that the proposed management approach for unexpected finds (and associated strategy for remediation works if required) as detailed in the RAP (ERM, November 2020) is appropriate for the proposed land use of the site as ongoing commercial/industrial. If contamination or areas of environmental concern are subsequently identified in the Site Audit area, it is considered that following the successful implementation of the remediation and validation works as detailed in remedial plans, the site can be made suitable for the proposed land use.

7 Data Gap Assessment, Remediation, and Validation

The following sections describe the reported data gap assessment, remediation, and validation program for the Site Audit area (Stage 3A) as reported by ERM in the *Validation Report* (ERM, April 2023).

The stated primary objective of site validation report was to demonstrate that the recommendations of the RAP (ERM, November 2020) have been completed in Stage 3A, including the required data gap, remediation and assessment of site won materials in accordance with the MAIP (DLA, March 2018) and validation that the Site had been made suitable for the proposed future commercial/industrial land use.

Based on a review of the previous investigation results and the RAP, several potential sources of contamination of concern were identified specifically within the Stage 3A area. Most of these concerns were related to the footprint of the brick making facility.

The factory was demolished prior to earthworks commencing during 2021, with the DA 357.3/2019 Demolition DA / CFT-175143 Compliance Package accepted by Council on the 18 August 2022. As such the remediation excludes demolition management, with assessment made on the underlying soils and subsurface infrastructure as part of the remediation.

In addition, cut and fill activities occurred in the south of Stage 3A between January and December 2018, with a total fill balance of 84,710 m³. The works were described as the Inspection and Testing Plan (ITP) area within the Limited Detailed Site Investigation report (ERM, September 2019) report, where materials used for filling were previously assessed as compliant with site assessment works and not assessed any further as part of the remediation.

The remediation scope of work undertaken on the site to verify the site suitability was reported to have been split into three distinct campaigns.

These campaigns include:

- Data gap assessments – a series of test pits and boreholes established across the previously identified ‘data gap’ areas in accordance with the RAP to investigate the potential for unexpected finds of contamination.
- Remediation and Validation works completed – identified areas requiring remediation in accordance with the RAP, by excavation and offsite disposal or managed within other stages of the development were validated to confirm removal of identified contamination areas. Validation works also included delineation and remediation of AECs identified by the data gap assessments conducted.
- Site sourced fill assessments from February 2021 to March 2022, progressive assessment of site sourced fill materials was conducted during the earthworks activities to verify the site’s continued suitability.

In addition to the identified remediation works, sewer main install works conducted by others, also occurred in early 2021 within the north of Stage 3A boundary, with an independent civil contractor (Ardee Civil Pty Ltd) engaged by Sydney Water to complete works.

The works included:

- Approximately 430 tonnes of asbestos waste and 400T of ENM classified for offsite disposal
- 349.69 tonnes asbestos fill soils disposed offsite
- An asbestos clearance certificate issued
- 550 tonnes backfill sands imported
- 130 tonnes of GSW exported offsite

The net differential of soil materials for the wastewater lead in works was approximately 330 tonnes of material exported from the site.

The works completed as part of the sewer main install were not considered further by the consultant with the package of compliance documentation for material export and import provided by the contractor.

7.1 Data gap Assessment

The data gap investigation and remediation program were conducted between 11 February 2022 and 07 December 2022.

The following scope of works for the data gap assessment was undertaken:

- The RAP identified the data gap areas - DG1-3, across 7.65 ha and requiring a minimum of 95 sample locations.
- Five bore holes and 90 test pits were excavated into the identified data gaps (DG1, DG2 and DG3) between February 2021 and May 2022.
- A combined total of 185 soil samples reported, of which 55 sample locations were within the boundaries of Stage 3A.
- Most samples collected were analysed for TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos at a National Association of Testing Authorities (NATA) laboratory.

A total of five boreholes and 86 test pits were advanced over the period February 2021 – May 2022 to provide better site coverage from a contamination perspective of previously inaccessible areas prior to demolition of the former site structures. Three samples had exceedances of the site criteria as detailed in the consultant's table below.

Table 7-1 Data Gap Assessment Exceedances of Site Criteria

Sample ID	Analyte (exceedance)	Site Criteria
BH46_2.3	Total Xylenes (98 mg/kg)	ESLs (95 mg/kg),
BH46_2.3	TRH C6-C10 less BTEX (470 mg/kg)	ESLs (215 mg/kg), HSLs for Clay 0 to <1m (310 mg/kg)
DGTP 42_0.2	Benzo(a)pyrene (2.7 mg/kg)	ESLs (1.4 mg/kg)

Material from TP42 was excavated as part of the remediation works conducted for identified AEC DL5. Post remediation material was placed and tested and within the Stage 3B area of the site at a depth greater than 2 meters, with ESLs generally applicable to the top 2 m of soil.

BH46 also recorded exceedances of the HSLs for F1 TRH fractions in Clay (0 to <1m) in sample BH46_2.3, are not considered significant as the sample was collected from a depth of 2.3m bgl. It is likely however the area would be further excavated and potentially a receptor would be within 1m of this location, as such, further assessment of this result with (0 to <1m) depth was completed. The significance of reported exceedances of the site ecological screening criteria for TRH C6-C10 (less BTEX) and total xylenes in sample BH46_2.3 is also limited given the site use is for commercial industrial land and not ecologically sensitive.

The consultant reported that the 95% Upper Confidence Limit (UCL) of the arithmetic mean for xylenes does not exceed the validation criteria – (95% UCL of 1.717). The individual contaminant concentration for xylenes does not exceed the validation criterion by more than 250% - (103%) and the standard deviation of individual contaminants does not exceed 50% of the validation criteria (7.182mg/kg).

For the F1 fraction for TRH the consultant reported that the 95% Upper Confidence Limit (UCL) of the arithmetic mean for chemical contaminants does not exceed the validation criteria – (95% UCL of 26.03) and that no individual F1 concentration exceeds the validation criterion by more than 250% - (219%) and the standard deviation of individual contaminants does not exceed 50% of the validation criteria (33.18mg/kg).

For B(a)P the consultant reported that the 95% Upper Confidence Limit (UCL) of the arithmetic mean does not exceed the validation criteria – (95% UCL of 0.532) that the individual B(a)P concentration does not exceed the validation criterion by more than 250% - (193%) and the standard deviation of individual contaminants does not exceed 50% of the validation criteria (0.162mg/kg).

In response to the exceedances reported in BH46 and as a further precaution, the consultant reported that the soils from this location were excavated and stockpiled on hardstand, with a further 10 soil samples collected for analysis on 12 May 2021.

Analysis of the stockpile samples reported no exceedances of the site criteria for total xylenes and a single exceedance for TRH C6-C10 (less BTEX) was reported of the ESLs and HSLs for Clay (0 to <1m) in one sample. A triple re-extraction of sample this sample (TP46 SP-9) was requested by the consultant, and subsequent laboratory analysis returned significantly lower detections in all three re-extracted samples with no exceedances of the site criteria.

Soils in the vicinity of TP46 SP-9 were also spread out and reassessed, as well as the source pit walls and base on the 26 May 2021.

All results were less than the land use criteria. As a result, impacts related to the reported exceedances were reported to appear to be minor, highly localised, and not indicative of significant impact in the immediate area. The stockpiled material was therefore assessed as suitable for use on-site after reassessment and placed back into the BH46 excavation.

Asbestos sampling results found no exceedances of the site criteria or notable detections reported with the following exceptions:

- Soil sample DG-TP55-0.5 reported AF/FA of 0.019 w/w %, exceeding the site criteria of 0.001%;

- Soil sample DG-TP48-1.0 reported AF/FA of 0.005 w/w %, exceeding the site criteria of 0.001%
- A fragment sample DGTP37-1.5 reported bonded w/w % of 0.0123. ERM note this was not an exceedance of the site acceptance criteria of 0.05 % however this material was remediated as part of the wider remediation of uncontrolled filling works associated with DL5.

The data gap assessment identified Unexpected Finds (UF) which required delineation, remediation, and validation. This was undertaken as part of the validation works conducted.

7.2 Groundwater Assessment

The RAP identified that previous investigations identified that groundwater on-site may be contaminated with hydrocarbons from former and current USTs, in addition to the evidence that petroleum hydrocarbons were present in on-site monitoring wells, a groundwater monitoring program at the site would be prepared and implemented. The requirement for further groundwater remediation would then be considered following groundwater contaminated delineation works in the Data Gap areas.

The specific groundwater well within Stage 3A identified to have TRH detections was located at monitoring point MW2a. The area was collocated within the AEC DL3 area, where TRH exceedances were noted within the soil at 2.5m below ground level.

From this DL3 area, ERM classified an estimated 1,600 m3 of TRH containing soils for offsite disposal. This pit was subsequently validated post removal. Given the localised TRH contamination, it was expected there was no longer a risk to groundwater contamination in the area and subsequent TRH in groundwater will dissipate due to natural attenuation.

A groundwater monitoring program for the site was established prior to the completion of bulk civil works, with four wells placed around the perimeter of the site within accessible areas at the time.

A monthly monitoring plan culminating in a total of four groundwater monitoring events was implemented to provide data on COPCs in site groundwater associated with the former site and surrounding site use. The scope of the monthly groundwater monitoring events is outlined in the following consultant's Table.

Table 7-2 Groundwater Monitoring Program

Sample Type	No. of Primary Samples	Analytical Suite
Groundwater samples	1 per well x 4 on-site wells	TRH C ₆ -C ₁₀ TRH >C ₁₀ -C ₁₆ TRH >C ₁₆ -C ₃₄ TRH >C ₃₄ -C ₄₀ BTEXN Metals PAH (ultra trace) OCP / OPP / PCBS Alkalinity Ionic Balance (total anions and cations) BOD COD TDS TSS Chloride Sulfate TOC Nitrite, Nitrate, NO _x Total Nitrogen Total Kjeldahl Nitrogen Ammonia Fluoride Phosphate Total Phenolics

Groundwater sampling was undertaken as follows:

- Monitoring wells were sampled using hydrasleeves, which were deployed a minimum of 24 hours prior to sampling and positioned at depth level with the screened section of the wells.
- Prior to sampling wells were gauged using an oil/water interface probe.
- Following gauging, hydrasleeves were retrieved and groundwater samples were collected into appropriate laboratory supplied containers. Samples were filtered for metals using a 0.45-micron filter. Samples were then analysed at a NATA accredited laboratory.
- Field water quality parameters (including electrical conductivity (EC), dissolved oxygen (DO), redox potential (ORP), pH and temperature) were collected via a Water Quality Meter during sampling.

Screening levels applicable to the groundwater monitoring works were applied as per the RAP and include:

- ASC NEPM Health Screening Level (HSL) - HSL D (Commercial/Industrial)
- ANZG Default Trigger Value (95% species protection) for freshwaters – applicable to off-site receptors only (superseding the ANZECC 2000 95% species protection guidelines specified in the RAP)
- site specific trigger values set as per the RAP were added for the presence of TRH compounds in water in the absence of nominated guideline values

Groundwater criteria for the site COPCs are presented in the following consultant's table.

Table 7-3 Groundwater Assessment Criteria

Analytes	HSL-D (clay)(ASC NEPM) ⁴				CRC CARE (2011) Intrusive Maintenance Worker (clay) ⁴				ANZG (2018) Ecological Freshwater Slightly to Moderately Disturbed	ADWG(NHM RC & NRMHC 2011 v3.7)	Intrusive Maintenance Worker
	0.75-<2m	2-<4m	4-<8m	8m+	0.75-<2m	2-<4m	4-<8m	8m+			
TRH C ₆ -C ₁₀ less BTEX (F1)	5	6	6	7	NL	NL	NL	NL	0.02	-	17000
TRH >C ₁₀ -C ₁₆ less naphthalene (F2)	NL	NL	NL	NL	NL	NL	NL	NL	0.1	-	900
TRH >C ₁₆ -C ₃₄	NL	-	-	-	NL	-	-	-	0.1	-	19
TRH >C ₃₄ -C ₄₀	NL	-	-	-	NL	-	-	-	0.1	-	19
Benzene	6	3000	3000	35000	8	NL	NL	NL	0.95	0.001	1.9
Toluene	NL	NL	NL	NL	NL	NL	NL	NL	0.18	0.8	480
Ethylbenzene	NL	NL	NL	NL	NL	NL	NL	NL	0.08	0.3	90
Xylenes Total	NL	NL	NL	NL	NL	NL	NL	NL	-	0.6	200
Xylene, <i>o</i> -	-	-	-	-	-	-	-	-	0.350	-	-
Xylene, <i>m</i> -	-	-	-	-	-	-	-	-	0.075	-	-
Xylene, <i>p</i> -	-	-	-	-	-	-	-	-	0.200	-	-
Naphthalene	NL	NL	NL	NL	NL	NL	NL	NL	0.050	0.07	3
Lead	-	-	-	-	-	-	-	-	0.0034	0.01	0.2
MTBE	-	-	-	-	-	-	-	-	-	0.015	0.3

Notes:

- No applicable criteria available

NL – Not limiting: the derived groundwater HSL exceeds the water solubility limit; therefore, a soil vapour source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario.

Post-remediation monitoring of the Stage 3A groundwater monitoring network was conducted monthly following remediation of the identified hotspot AEC DL3, filling and compaction of the Stage 3A area and installation of four groundwater monitoring wells. All four groundwater wells on the site were surveyed by a registered surveyor (Freeburn Surveying) on 7 September 2022 and groundwater contours and predicted groundwater flow direction calculated.

Groundwater laboratory analytical results are presented in the consultant's tables in **Appendix L**. Groundwater gauging data is summarised as well as groundwater field parameters. LNAPL was not recorded at any of the wells.

Analytical results were reported below the groundwater screening criteria with some exceptions for TRH, phenathrene and various heavy metals. No results were reported above HSL-D.

7.3 Remediation Works

Remediation works included:

- Delineation – delineation works of previously identified AECs, which included the following:
 - DL3 – a TRH exceedances at approximately 2.5m below ground level (bgl) requiring further delineation and potential remediation
 - DL1 – DL2 and DL4 - asbestos and foreign materials detections and exceedances, requiring further investigation and potential remediation
 - DL5-DL7 - foreign materials requiring additional investigation and potential remediation
- Remediation – Excavation of pre-identified contamination areas as outlined within RAP, with materials either disposed of offsite or subject to onsite sorting. The areas are described below.
- Additional AEC Remediation – remediation via excavation of additional AECs (not included within the RAP) based on the unexpected findings of the data gap assessment undertaken. These AECs identified as are UF1, UF2 and UF3.

Table 7-4 Stage 3A Remediation Areas

AEC	COPC	AEC Description	Remediation Required
Remediation Areas – delineation and remediation			
DL3	TRH C ₆ -C ₄₀	Hotspot of TRH in soil; suspected residual contamination from previous USTs	Excavate contaminated soils for classification and offsite disposal., Potential for COPCs >HIL/HSL-D criteria in surrounding soils
DL4 /TP35	Asbestos and foreign materials	Fill materials containing asbestos fines and foreign materials	Excavate potentially contaminated fill for sorting within the established ATA (outside of the site).
DL5 TP37/ TP42/ TP44	Asbestos and foreign materials	Fill materials containing asbestos in soils (AF/FA). Detection areas were excavated and delineated though additional soil sampling	Excavate potentially contaminated fill for sorting within the established ATA (outside of the site) in accordance with the RAP.
DL6	Foreign materials on surface	Surface topsoil's containing foreign materials	General rubbish removed as part of demolition clean up works. Surface topsoil's scraped and consolidated off the site. Underlying clays from N20 inspected and sampled as suitable to remain onsite.
DL7	Foreign materials in fill soils	Fill soils with a high organic matter concentration	Fill soils assessed as geotechnically unsuitable for reuse on the site. Soils excavated, stockpiled and classified for offsite disposal.
Remediation Areas – data gap assessment			
Brick Making Stockpiles	Hydrocarbons, asbestos, heavy metals, foreign materials	Residual fill materials present onsite requiring assessment for suitability to remain onsite	Materials used for fill onsite assessed at a sampling density of 1 per 1000m ³ in accordance with RAP (ERM, 2020)
DG1 DG2 and DG3	Hydrocarbons, asbestos, heavy metals, foreign materials	Previous factory shed and work zone footprints	Assessment of 95 sample locations as required in the RAP (ERM, 2020). Materials that exceed the land use requirements are identified as Unexpected Finds (UF)
Dam Silts	Hydrocarbons, asbestos, heavy metals, foreign materials	Detailed assessment of all dam silts sourced from the site due to identified data gap	All silts excavated, dried and assessed for site suitability before reuse. A total of 110 samples were collected, exceeding the 35 samples required as part of the RAP (ERM, 2020)
Remediation Areas – Unexpected Finds (UF) from data gap assessment			
UF1	TRH C ₆ -C ₄₀	Oil-stained soils identified in the footprint of the former factory	Oil-stained soils excavated, stockpiled, classified and disposed of offsite
UF2	Microbiological	Two septic tanks eastern side of factory footprint	Tanks pumped out and disposed of as part of demolition works by others. Residual soils tested for site compliance.
UF3	Asbestos	Test pits TP48 and TP55 identified surface friable asbestos in soils	Excavate potentially contaminated fill for onsite contaminant within the established ATA (outside of the site) in accordance with the RAP.

Soil validation required by the RAP, or the identification of unexpected finds included the following areas:

- Excavate and dispose of TRH soils, (DL3)
- Excavate and manage fill materials containing foreign materials and asbestos (DL4/TP35)
- Excavate and manage fill materials containing foreign materials and asbestos (DL5/TP37/TP42/TP44)
- Manage surface foreign materials in topsoil (DL6)
- Excavate and dispose of foreign materials with high organic content (DL7)
- Dispose of oil-stained soils from the factory footprint (UF1)
- Validate residual septic tanks from the factory footprint (UF2)
- Excavate and manage fill materials containing asbestos (UF3)

To manage soils containing asbestos encountered onsite, an Asbestos Treatment Area (ATA) was established in accordance with the RAP outside the boundaries of the Stage 3A Site. It should be noted that although named the 'Asbestos Treatment Area', asbestos treatment is not undertaken within this area and rather the area was used for consolidation, storing and assessment of asbestos containing soils prior to containment in a containment cell being constructed in the Stage 3C area. The nomenclature used is from historical reports completed and is continued to be used for consistency across the project. Management of materials within the ATA will be reported during future site validation for Stage 3C.

7.4 Remediation Validation Program

The scope of the validation works had been defined in the RAP (ERM, November 2020) and on observations made during the earthworks program and remediation works.

The following table was provided by the consultant summarising the validation samples collected as part of the remediation works.

Table 7-5 Summary of Remediation Validation Program – Stage 3A

Dates	Work Description	Associated Validation Sample Nomenclature		
11/02/2021 and 17/03/2021	Visual clearance of DL7	N/A		
2/06/2021	DL4/TP35 validation sampling works	Wall-1 Wall-2 Base upper-1	Base upper-2 Base lower-1 Base lower-2	
15/09/2021	Soil sampling of oil sump (UF1) footprint	Sump Excavation SW Sump Excavation WW Sump Excavation NW Sump Excavation WW Sump Excavation Base	Sump NW top Sump Top Base	
17/09/2021	Soil sampling of the septic tank pits (UF2)	SEPTIC PIT-1 EW-1 SEPTIC PIT-1 EW-2 SEPTIC PIT-1 SW-1 SEPTIC PIT-1 SW-2 SEPTIC PIT-1 NW-1 SEPTIC PIT-1 BASE SEPTIC PIT-2 WW-1	SEPTIC PIT-2 WW-2 SEPTIC PIT-2 SW-1 SEPTIC PIT-2 SW-2 SEPTIC PIT-2 NW-1 SEPTIC PIT-2 NW-2 SEPTIC PIT-2 BASE	
21/03/2022 to 23/03/2022	DL3 Validation sampling works	BASE-1 to BASE-10 BASE-5-V DL3EW1-1 DL3EW1-2 DL3EW2-1	DL3EW2- 2 DL3NW-1 DL3NW-2 DL3SW-1 DL3SW-2	DL3WW1-1 DL3WW1-2 DL3WW2-2 DL3WW2-2
4/03/2022 and 31/07/2022	Base of TP48 (UF3)	TP48-B; TP48-N; TP48-E;	TP48-S; TP48-W	
4/05/2022	Visual clearance of DL6	N/A		
26/05/22 and 28/06/22	DL5 Visual clearance inspection	N/A		
7/12/2022	Base of TP55 (UF3)	TP55-FP1; TP55-FP2;	TP55-FP3; TP55-FP4	

Site plans illustrating the location of validation sampling points are presented in **Appendix K**. Analytical summary tables of soil validation results were prepared by the consultant and are provided in **Appendix L**.

7.5 Validation Criteria

Validation of remediation works was undertaken with reference to and in general accordance with:

- Remediation Action Plan prepared by ERM
- National Environment Protection (Assessment of Site Contamination) Measure 1999 ('ASC NEPM') (NEPC, 1999, as amended 2013)
- Health screening levels for petroleum hydrocarbons in soil and groundwater, Part 2: Application document, CRC CARE Technical Report no. 10 (Friebel & Nadebaum, 2011).

Selection of appropriate validation criteria and groundwater screening levels was largely based on the planned future use of the site for non-sensitive commercial/industrial purposes.

Given that the geology underlying the site comprises various site won fill materials, with the site rich in virgin and historically imported clays and shale as part of the brick manufacturing process the soil type utilised for the derivation of human health and ecological screening levels was clays.

Validation criteria applicable to the assessment of soil include:

- ASC NEPM Health Investigation Levels (HIL) - HIL D (Commercial/Industrial)
- ASC NEPM Health Screening Level (HSL) - HSL D (Commercial/Industrial)
- ASC NEPM Management Limits - Commercial/Industrial
- ASC NEPM Ecological Investigation Level (EIL) - Commercial/Industrial
- ASC NEPM Ecological Screening Level (ESL) - Commercial/Industrial
- CRC CARE (Friebel & Nadebaum, 2011) Soil Health Screening Levels for Direct Contact - HSL D (Commercial/Industrial), and Intrusive Maintenance Worker.

The specific criteria applied are provided in the following consultant's table.

Analytes	HIL D(ASC NEPM)	HSL D (Clay)(ASC NEPM				Management Limits (Commercial, Coarse) ASC NEPM)	EIL (Commercial (ASC NEPM)	ESL (Commercial, Coarse)(ASC NEPM)	HSL D Direct Contact(CRC Care, 2011)	Intrusive Maintenance Worker Direct Contact(CRC Care, 2011)
		0-<1m	1-<2m	2-<4m	+4m					
TRH C ₆ -C ₁₀	-	310	480	NL	NL	700	-	215	26,000	82,000
TRH >C ₁₀ -C ₁₆	-	NL	NL	NL	NL	1,000	-	170	20,000	62,000
TRH >C ₁₆ -C ₃₄	-	-	-	-	-	3,500	-	2,500	27,000	85,000
TRH >C ₃₄ -C ₄₀	-	-	-	-	-	10,000	-	6,600	38,000	120,000
Benzene	-	4	6	9	NL	-	-	95	430	1,100
Toluene	-	NL	NL	NL	NL	-	-	135	99,000	120,000
Ethylbenzene	-	NL	NL	NL	NL	-	-	185	27,000	85,000
Xylene	-	NL	NL	NL	NL	-	-	95	81,000	130,000
Naphthalene	-	NL	NL	NL	NL	-	370	-	11,000	29,000
Lead	1,500	-	-	-	-	-	1,800	-	-	-
Asbestos (%w/w)										
■ Bonded ACM	■ 0.05									
■ Friable asbestos (AF + FA)	■ 0.001*	-	-	-	-	-	-	-	-	-
■ Surface asbestos	■ No visible									

*The screening level of 0.001 w/w% (FA + AF) only applies where FA and AF are able to be quantified by gravimetric procedures in accordance with the ASC NEPM. Where no visible asbestos is present, samples analysed for validation are subject to a limit of reporting of 0.01%w/w. If no asbestos is detected at this reporting limit, and there is no visible asbestos, successful validation will be concluded.

The NEPM (NEPC, 1999, Amended 2013) requires the consideration of aesthetic issues (because of contamination) arising from soils at the Site; consequently, the following criteria were applied when considering soil aesthetics:

- No highly malodorous soils, taking into consideration the natural conditions of the soils at the site.
- No staining or discolouration in soils, taking into consideration the natural conditions of the soil at the site
- No large or frequently occurring anthropogenic materials present (to the extent practicable).

Validation of soils will be considered to have been achieved when laboratory analytical results are reported below the validation criteria, thereby not posing an unacceptable risk. For laboratory analytical results, the following statistical criteria shall be adopted with respect to the validation criteria:

- The 95% Upper Confidence Limit (UCL) of the arithmetic mean for chemical contaminants does not exceed the validation criteria.
- The individual contaminant concentration does not exceed the validation criterion by more than 250%
- The standard deviation of individual contaminants does not exceed 50% of the validation criteria.

7.6 Validation Results

The assessment/validation sampling program conducted at the site was broadly consistent with the proposed strategy outlined in the RAP (ERM, November 2020). Consultant supervised the excavation and placement of soils during the Stage 3A earthworks. The consultant noted that additional site supervision was provided by the consultant geotechnical, Douglas Partners who oversaw placement of material from a geotechnical perspective.

The consultant confirmed that a combined visual and sampling approach was adopted for the assessment and validation of in situ, imported and beneficially reused material in the Stage 3A area.

A photoionisation detector (PID) was used as a semi-quantitative indicator of the potential presence of volatile contaminants in soil and was utilised for the field screening for validation of UF1, DL3 and BH46 where hydrocarbons were the contaminant of concern. PID readings indicative of the presence of ionisable volatile compounds (>10ppm isobutylene equivalent) were not encountered at any of the sample locations during validation works. PID readings obtained ranged between 0.0 and 95 ppm.

As visual clearances were issued for AECs DL5, DL6 and DL7 chemical sampling and analysis was not conducted. Photos from clearances were presented as an appendix to the validation report.

Visual inspection of the assessed/validated material confirmed that no potentially contaminated material was observed with no evidence of odours, staining, foreign materials and/or ACM observed by the consultant.

Validation sampling was undertaken in accordance with the sampling plan outlined within the RAP. AECs remediated based on UFs were also validated based on this sampling plan. Validation works were performed with reference to the Data Quality Objectives presented in the validation report.

No detections of asbestos were reported in all asbestos validation samples collected.

Validation results are contained in the consultant's tables provided in **Appendix L**.

Validation of DL3

Due to ongoing site works and the need for storage of materials pending classification for waste disposal, excavation, and delineation of the DL3 area occurred across several campaigns. The scope of works and field observations are as follows:

- Progressive excavations of the pit and sampling of excavated spoil was undertaken on the 28th of September, the 8th and 25th of October and the 30th of November 2021
- Following removal of TRH impacted materials from the DL3 area, ERM attended Site on the 21st of March 2022 to conduct a visual inspection and sampling of the TRH hotspot area:
 - The excavation was observed to be 25m by 10m to a depth of approximately 3m
 - The excavation walls and base of TRH impacted materials were observed to be natural clays (red orange clays and grey-orange clays), remaining odours were not noted and staining bonded ACM was not observed.
- A total of 12 samples were collected from varying depths of the walls and 10 samples collected from the base of the excavation in accordance with the RAP
- The samples were analysed for Total Recoverable Hydrocarbons (TRH) at a NATA accredited laboratory
- The analytical results indicated, a single detection at the location Base 5 (480mg/kg), which was reported to marginally exceed the adopted ESL criteria of (170mg/kg). Consequently, the footprint of Base 5 was excavated a further 300mm and follow up sampling (Base 5-V) was completed on the 23rd of March 2022. The stockpile load out area was on the residual hardstand as part of the factory footprint and as such footprint validation of the stockpile post load out was not required and residual contamination risks were contained.

Validation of DL4/TP35

DL4 was identified as an area of foreign material impacts (bricks) and one exceedance of AF/FA at test pit TP35 (0.7m bgl).

TP35 asbestos hotspot was identified as an isolated pocket of fill material extending approximately 8x8m to a depth of approx. 0.5m, described as brown shaly clay with brick

inclusions. This material was visually dissimilar to surrounding clay materials and was excavated and stockpiled within the ATA (outside the Site boundary).

Soils samples, including three chemical and asbestos samples (HS-1 to HS-3) of the stockpiled material were collected in the ATA for land use suitability. The soils were found to meet the land use, however, as a precaution were consolidated within the onsite containment cell stockpile (outside of the site boundary).

The hotspot was excavated to natural material on all sides. A total of six asbestos samples were collected from the footprint and analysed for asbestos gravimetric analysis to confirm compliance.

Validation of DL5 TP37/TP42/TP44

DL 5 comprised of an area of uncontrolled filling in the northwest section of the site, adjacent to the onsite dams. Foreign materials such as bricks and slag were noted from the surface to approximately 1.5m bgl (estimated volume of 1,550 m³). Isolated ACM was noted within the fill materials at TP37. Soils from the DL5 area were excavated and stockpiled for screening onsite to remove foreign materials. During the excavation, sections of these stockpiles were identified as having asbestos within the soils, with minor concentrations of ACM or fines identified in the soils.

These stockpiles were transferred to and sorted within the ATA, with waste materials separated and assessed for suitability to remain onsite as fill or consolidated into the stockpile for onsite containment. Further, the DL5 Area was extensively test pitted to confirm suitability to remain onsite.

All soils assessed as part of the DL5 remediation were sorted and placed within the Stage 3B area and will be reported within the Stage 3B validation report.

At the completion of excavation work in the DL5 area, NSW Licenced Asbestos Assessor Shane Williams conducted a visual clearance inspection on 26/05/22 and 28/06/22.

Validation of DL6

DL 6 comprised an area (TP63) in the LDSI (ERM, 2019) with soils described as dark brown sandy clay with surface rubbish (minor) plastic and cans. As part of the demolition clean up works, areas of general rubbish were removed from the site. Further, surface topsoils were scraped and consolidated in adjacent stages for future use, with no site won topsoil's remaining within Stage 3A.

ERM inspected this area post topsoil stripping on the 04th May 2022 as part of the material assessment works for N20 and observed red silty clays and no foreign materials at the time of inspection.

Validation of DL7

DL 7 comprised an area in the LDSI (BH51) with soils described as black mulchy loam with organic matter. The soils were assessed by others as geotechnically unsuitable for use as fill materials onsite.

As a result, the soils were excavated, stockpiled, assessed, and classified for offsite disposal by ERM.

ERM inspected this area post removal of the material on the 11th of February 2021 and 17th March 2021 as part of the ongoing data gap test pits in the area, with brown silty clays observed and no foreign materials.

Validation of UF1

UF1 consisted of a sump of oil-stained soils identified in the footprint of the former factory.

The following was undertaken:

- Contaminated soils were excavated, classified, and disposed of offsite (per waste classification report ref 0449086_S011086)
- Soils were excavated until no remaining odours were noted or staining was observed
- Due to the irregular shape of the excavation, a total of seven soil validation samples were collected from the residual sump excavation walls footprint to confirm removal of all overlying fill
- The samples were analysed for Total recoverable hydrocarbons and Benzo(a)pyrene at a NATA accredited laboratory.

Excavated soils were stockpiled on the residual concrete base of the factory footprint, preventing the risk of underlying soil contamination.

Validation of UF2

As part of demolition works, two septic tanks were decommissioned and removed from the site:

- The residual footprint of the base and walls of each pit were tested by ERM Environmental Consultants, with soil samples collected from the excavation walls and base to confirm there was no residual contamination on the 17th of September 2021:
 - A combined total of two samples were collected from the tank bases and eleven were collected from the walls, and
 - Analysed for E. coli, thermotolerant coliforms and salmonella at a NATA accredited laboratory.

The results complied with the Use and Disposal of Biosolids Products (NSW EPA, 2000) with results meeting the land use requirements and not further works required.

Validation of UF3

Data gap test pits TP48 and TP55 identified surface asbestos in soils:

- The soils from these areas (when accessible) were excavated and consolidated into a stockpile for onsite contaminant within the established ATA (outside of the site) in accordance with the RAP;
- The base of TP48 was scraped and sampled on the 04 March 2022, with the surrounding areas sampled on the 31 July 2022 when accessible to confirm the extent of the asbestos was contained:
 - The sampling included one sample from the base and four samples from the surrounding areas as delineation samples, and

- The samples collected were analysed for asbestos gravimetric analysis.
- TP55 – while strictly outside of the Stage 3A area was scraped, removed, and validated on the 07 December 2022, with four footprint samples confirming removal.

7.7 Reuse Materials Assessment

The consulted inspected and progressively assessed the excavation and placement of materials in accordance with the MAIP (DLA, March 2018). Following confirming materials were suitable to remain on-site, soils were excavated and placed during cut-to-fill works. The movement of these soils was documented in Inspection and Testing Plans (ITPs) produced by the Civil Earthworks Contractor.

Most of the Stage 3A was filled with brown/grey/blue shales and red/brown clay sourced from cut to fill works from the wider site development requiring excavation and placement to achieve geotechnical requirement. Additionally, imported sandstone material was used for the construction of the retaining walls as well as Densely Graded Base (DGB) and Densely Graded Sub-base (DGS) for the road construction.

A total of 602,012 m³ of site won fill material was placed within the Stage 3A validation area including construction of the associated road. This total volume was confirmed through a digital terrain model produced for the job indicating a total of 590,179 m³ placed during Stage 3A works, with this modelled cut to fill plan provided in an appendix to the report. The discrepancy of 2,863 m³ (0.5% of total volume) is within an acceptable margin of error given volumes are based on truck load counts, discrepancies with bulk density factors and margins of error in field volume estimates.

A breakdown of all fill materials placed within and exported from the Stage 3A site have been presented in the following consultant's table.

Table 7-6 Stage 3A Material Reuse

Material	Description	Total Approximate Volume (m ³)	Final Location
Materials placed within Stage 3A			
Prefilled materials	Filling within 3A occurring in 2018	84,710	Southern Section of Stage 3A
Site sourced fill assessments	Progressive testing of site won fill, clays and shale for placement	465,500	Across Stage 3A
Imported DGS40/DGB20	Pre-classified base course for road construction	2,061*	Stage 3A Road
Imported Fill Material (VENM)	VENM Sandstones	42,741	Stage 3A Retaining Wall
Subtotal		+602,012 m³	
Materials exported from Stage 3A			
Classified Soil Disposal		14,262*	
Asphalt DGB		276*	
Net Concrete and demolition disposal		158*	
Subtotal		-14,697 m³	

*- Bulk factor of 2.0 m³/tonne adopted for bulk density concrete

#- Bulk factor of 1.7 m³/tonne adopted for bulk density soils

A total of 42,741 m³ of sandstone was imported to Site for retaining walls, based on Retaining Wall 1 Survey of 41,572 m³ and Retaining Wall 5 Survey of 1,169 m³.

Source sites for imported materials were pre-classified as VENM prior to import. In addition, imported materials were assessed in accordance with the MAIP with classification reports and additional sample as detailed in the following consultant's table.

Table 7-7 Stage 3A Imported Material

Source	Classification Report Reference	Approximate Volume (m ³)	ERM Sample Dates	ERM Additional Sample ID
Gladesville	CH1193 D9666_Ver1.2	8,621	27/10/2021, 12/01/2022	Gladesville- 1 to 8
Castle Hill	E23792	14,253	31/03/2022	CH-1 to 3
Willoughby	L018	15,136	12/01/2022	Willoughby 1 to 3
Lane Cove	GTE3159-ENV01	4,731	27/08/2020	LC1 to 4

A total approximate volume of 2,394 tonnes of DGS40 Subbase and 1,728 tonnes of DGB20 Base course was imported to Site for the construction of the remainder of Road 1 (Johnston Crescent) in Stage 3A. As these materials comply with the requirements of the NSW EPA Recovered Aggregate Exemption 2014, ERM did not consider the requirement to collect samples of this material necessary. All materials underwent geotechnical assessment by Douglas Partners.

A total of approximately 2,264 m³ of sandstone was imported to the broader development area for the construction requirements of Road 1. Documentation for the imported material were appended to the validation report.

In addition, 1,857 tonnes of sub-base and 1,057 tonnes of base course was also imported to the site for construction of the road. These materials complied with the NSW EPA Recovered Aggregate Exemption 2014 but did undergo geotechnical assessment by Douglas Partners.

Table 7-8 Summary of Fill Materials and Validation Samples – Stage 3A

Material Source (*Grid Reference (GR))	Placement Area(s)	Sample Date	Sample IDs	Material Description	Total Approximate volume (m3)	Primary Sample No.	Analytical Suite
'Green' material from DL1 Area	Stage 3A.	Multiple sampling events between 26 th February 2021 to 2 nd August 2021	DL1-TP1-1M/4M to TP36- 1/4 and S3_SP1 to S3_SP422	Compliant 'green' (no visible or detected asbestos) material generated from remediation work of the Stage 3B DL1 uncontrolled fill area	31,500	1:397m ³ Chemical; 1:70m ³ Asbestos	Refer to Appendix G – ITP 92-96 for assessment details.
DL1	Stage 3A	01/02/2021, 08/02/2021	DL1-1 to DL1-16	Grey/brown silty clay fill	8,000	16	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
P14 Clay	Stage 3A	12/04/2021, 14/05/2021,	P14 Clay-1 to 5 and P14-6 to 10	Red/grey silty clay	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
N14SP	Stage 3A	20/04/2021	N14SP-1 to 5	Brown/ orange shaly clay	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
O13SP	Stage 3A	16/04/2021	O13SP-1 to 10	Red/grey clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
O15	Stage 3A	16/04/2021, 20/04/2021, 12/05/2021, 13/05/2021, 9/07/2021	O15-1 to 55	Brown/grey shales	38,000	55	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
Silt	Stage 3A	12/04/2021, 29/04/2021, 11/02/2021, 8/09/2021, 19/08/2021, 30/08/2021, 3/09/2021, 6/09/2021,	Silt-1 to 110	Brown Silt	50,000	110	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
N13	Stage 3A	24/01/2022, 11/03/2022	N13-1 to 20	Red/grey silty clay	10,000 [#]	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
M18	Stage 3A	30/10/2021, 17/11/2021,	M18-1 to 30	Red/grey silty clay	30,000	30	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
M19	Stage 3A	5/11/2021, 21/03/2022,	M19 Clays-1 to 10 and M19- 21 to 30	Red/grey silty clay	10,000 [#]	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
Q18	Stage 3A	17/12/2021, 12/01/2022, 31/01/2022	Q18-1 to 35	Brown/grey shales	35,000	35	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
M15	Stage 3A	19/05/2021, 18/06/2021	M15-1 to 5 and M16-6 to 10	Red clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
R16	Stage 3A, 3B	18/06/2021, 8/07/2021, 26/07/2021, 06/09/2021, 06/10/2021	R16-16 to 55	Grey/brown shales	24,000 [#]	40	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
R18SP	Stage 3A	1/03/2021	R18 SP-1 to 6	Tan/brown Clays	6,000	6	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
R19	Stage 3A	27/01/2021	R19-1 to 20	Grey shales	20,000	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
L13	Stage 3A	30/07/2021	L13-Shale-1 to 5	Grey shales	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
L15	Stage 3A	4/06/2021	L15-1 to 10	Red/grey Clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
L15	Stage 3A	10/09/2021	L15-Shale-1 to 10	Grey shales	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
L17	Stage 3A	23/08/2021, 27/08/2021	L17-1 to 20	Red/grey Clays	20,000	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
L19	Stage 3A, 3B	31/01/2022, 10/02/2022	L19-1 to 20	Brown shaley clays	10,000 [#]	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
N16	Stage 3A	9/06/2021	N16-1 to 5	Red clays	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
O16	Stage 3A	26/07/2021	O16-1 to 10	Blue shales	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
O18	Stage 3A	17/03/2021	O18-1 to 5	Blue shales	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
P16	Stage 3A	17/06/2021	P16-1 to 5	Brown shaley clays	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos

Material Source (*Grid Reference (GR))	Placement Area(s)	Sample Date	Sample IDs	Material Description	Total Approximate volume (m3)	Primary Sample No.	Analytical Suite
P18	Stage 3A	26/04/2021, 29/04/2021	P18-1 to 20	Blue shales	20,000	20	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
P19	Stage 3A	30/06/2021	P19-1 to 10	Brown clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
Q16	Stage 3A	18/06/2021	Q16-1 to 5	Grey shales	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
H9 SP	Stage 3A	5/03/2021	H8SP-1 to 3 and H9SP-1 to 7	Grey shales	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
I16	Stage 3A	16/06/2021	I16-1 to 5	red/grey clays	5,000	5	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
K15	Stage 3A	17/11/2021	K15-1 to 10	red/grey clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
T16	Stage 3A	8/12/2021	T16-1 to 15	red/grey clays	15,000	15	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
T17	Stage 3A	17/11/2021	T17-1 to 10	red/grey clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
T18	Stage 3A	9/12/2021	T18-1 to 10	red/grey clays	10,000	10	TRH, BTEX, PAH, OC/OP/PCB, Heavy metals, asbestos
Summary of site sourced fill placed in Stage 3A					472,500	582 [^]	

* GR refers to Grid references presented in Appendix F – Site Grid Reference

Volume split between Stage 3A and Stage 3B – indicative volume attributed to Stage 3A

[^] Excludes sample numbers from 'Green' Materials from DL1

All site sourced fill material samples outlined were submitted for laboratory analysis for heavy metals reported concentrations above the LOR, however all were compliant with the adopted site criteria.

Trace detections of PAH, pesticides and TRH were reported above the LOR however these detections were found to be compliant with the adopted site criteria. No detections of PCBs were observed in site sourced fill materials. A single detection of Benzo(a)pyrene was reported in sample SILT-66 (1.5mg/kg) that was above the industrial / commercial ESL criteria (1.4mg/kg). SILT-66 was one sample of 110 'SILT' samples, of which the remaining samples were less than the limit of report for Benzo(a)pyrene (<0.5mg/kg).

Silt samples were assessed as statistically compliant with the Site Acceptance Criteria based on the total 110 Silt samples reports because:

- The 95% Upper Confidence Limit (UCL) of the arithmetic mean for chemical contaminants does not exceed the validation criteria – (95% UCL of 0.524).
- The individual contaminant concentration does not exceed the validation criterion by more than 250% - (107%).
- The standard deviation of individual contaminants does not exceed 50% of the validation criteria (0.095mg/kg).

No detections of asbestos were reported in samples collected from site sourced fill materials for used in Stage 3A. As a result, all these materials were deemed suitable for the proposed future commercial/industrial land use.

7.8 Soil Waste Classification and Off-Site Disposal

Waste disposal activities were undertaken in accordance with the requirements of the Waste Classification Guidelines (NSW EPA, 2014a), the Waste Avoidance and Resource Recovery Act 2001 (NSW), the Protection of the Environment Operations (POEO) Act 1997 (NSW) and other relevant legislation.

All soils that required off-site disposal as part of the remediation works were disposed to an appropriately licensed waste facility. Copies of soil disposal dockets were provided by the remediation contractor to confirm the source, type, and quantities of materials. Transport of waste and disposal of materials was conducted in accordance with the requirements of the POEO Act 1997.

Pre-Classified waste removed from the site by the remediation contractor included asphalt from the previous car parking area.

The following consultants table summarises the soil waste disposal from the site.

Table 7-9 Summary of Soil Waste Disposal

Waste Type	Class Date	Class vol	Disposal Dates	Quantity (tonnes)	Disposal Facility
General Solid Waste – PGH Stockpile S011061	16/09/2021	1500m ³ / 2,700 T	8/10/2021 – 20/10/2021	2599.24	Blacktown Waste Services
General Solid Waste – PGH Sump S011086	08/10/2021	145 T	13/10/2021– 20/10/2021	335.24	Blacktown Waste Services
General Solid Waste (Asbestos) - PGH DL3 S011125	16/12/2021	2720 T	27/10/2021– 21/12/2021	2061.76	Blacktown Waste Services
General Solid Waste – Green waste S011105	26/10/2021	7310 T	19/11/2021 – 20/12/2021	8280.22	Blacktown Waste Services
General Solid Waste – Green waste S011106	26/10/2021	10710	04/01/2022 – 31/01/2022	10969.06	Blacktown Waste Services
Asphalt from Burley Rd, old PGH car Par	Pre- classified waste		13/01/22 – 21/03/22;	552.46	ECORR Wetherill Park
Concrete and Demolition waste	Pre- classified waste		12/10/2021 – 16/12/2022	316.58*	Blacktown Waste Services

*Net volume inclusive of reloaded aggregate

Waste classification reports for soils disposed offsite were presented in an appendix to the validation report.

7.9 Data Quality Assurance and Quality Control

A QA/QC assessment was prepared by the consultant and provided within the *Validation Report* (ERM, April 2023).

ERM reported that 31 intra-laboratory duplicate soil samples and 18 inter-laboratory duplicate soil samples were collected as part of the validation sampling activities. The RPD calculations for duplicate samples were tabulated. The consultant noted that there were RPD exceedances however, no further discussion was provided.

Trip spike and trip blank samples were not collected during the validation program given the absence of volatile contaminants of concern. Rinsate samples were also not collected. The consultant provided details of decontamination procedures for all reusable sampling equipment. All samples were placed in dedicated laboratory supplied sample containers with unique IDs. All samples were accompanied by a chain of custody form and transported in chilled conditions to the nominated project laboratory.

The consultant completed a review of laboratory analytical reports and associated QC criteria (holding times, laboratory duplicates, spike recoveries, surrogate standards, and laboratory blanks) and concluded the analytical data generated is representative of the overall site condition.

7.10 Consultant's Conclusions

The consultant reported the following conclusions:

- All required remediation works were completed and validated during the construction of the Stage 3A development area with all fill materials assessed in accordance with the RAP (ERM, November 2020) and MAIP (DLA, March 2018).

- The results of the validation assessment indicated that all soils were found to be compliant with the commercial/industrial land use criteria within the Stage 3A area, in accordance with the RAP.
- Based on the remediation and validation works undertaken within the Stage 3A area, ERM considered that the overall project objectives have been met, and the Site is suitable for an end land use consistent with Commercial/industrial as defined in NEPM (NEPC, 1999, Amended 2013).
- Based on the findings of this Site Validation Report, it is considered that Stage 3A or the remaining site area is associated with any scheduled activities. There has also been a LFGRA conducted over the Site and as a result ERM are of the opinion the site should not be subject to any future Environmental Management Plans or bound by any residual legislative requirements enforced from the EPL currently imposed on the Site.

7.11 Audit Evaluation of Validation Report

The following sections provide discussion of the Site Audit findings of the material assessment and validation works reported for the Stage 3A area.

7.11.1 Material Assessment and Validation Work Program

The material assessment and validation work program, as documented in the RAP (ERM, November 2020), and described in the *Validation Report* prepared by ERM (ERM, April 2023) was appropriate for the site.

No contamination was observed during initial investigation of the site (Phase 2). The RAP and Addendum to the RAP recommended that additional assessment should be undertaken during cut and fill activities in the event of unidentified contamination being present at the site. The ground conditions observed during the excavation and assessment works were consistent with expected conditions based upon desktop study findings and site conditions observed during the initial site investigation works.

The consultant undertook the assessment and validation sampling and analysis in a systematic way, meeting the objectives of the remediation and validation program.

7.11.2 Validation Data Quality Assurance and Quality Control

A QA/QC program was implemented to provide data of an appropriate quality and validity to meet the objectives. The program consisted of field QA/QC measures and laboratory QA/QC procedures.

Quality assurance/quality control in the field consisted of the following procedures:

- Supervision of works by experienced environmental consultants.
- Samples collected into appropriate laboratory supplied glass jars and zip lock bags (asbestos samples).
- Transporting samples under chain of custody conditions to a laboratory that is a NATA accredited for the analysis performed.

Laboratory QA/QC analysis was in accordance with the following procedures:

- analysis and reporting of laboratory duplicate samples
- analysis and reporting of laboratory method blank samples
- analysis and reporting of laboratory control samples or certified control samples
- analysis and reporting of laboratory control spikes, matrix spikes and surrogate spikes

The QA/QC undertaken during the validation sampling and reported by the consultant has been reviewed by the Site Auditor in reference to the parameters of precision, accuracy, representativeness, comparability, and completeness (the PARCC parameters) which are a useful tool for evaluating the quality control techniques used.

The following table summarises the QA/QC in relation to the PARCC parameters.

Table 7-10 Validation QA/QC Summary

Quality Indicator	Frequency & Acceptable Quality Parameter	Auditor Review of Quality Parameter Acceptance
Precision		
Intra-laboratory duplicates	Greater than 5% for COPC analytes Results <30-50% RPD	RPDs – acceptable*
Inter-laboratory duplicates	Greater than 5% for COPC analytes Results <30-50% RPD	RPDs – acceptable*
Laboratory duplicates	1 in 20 samples, <50% RPD (>10xEQL), <75% RPD (5-10xEQL), <100% RPD (<5xEQL)	RPDs – acceptable*
Accuracy		
Matrix spikes	70-130%	Acceptable*
Certified reference material or Laboratory Control Sample	70-130%	Acceptable
Surrogate Spikes	70-130%	Acceptable
Representativeness		
Sampling appropriate for media and analytes	As per NEPM and AS 4482.1	Yes
Rinsate blanks	1 per sample batch <LOR	Not collected*
Trip spikes/trip blanks	1 per sample batch 70-130%/<LOR	Not collected*
Laboratory blanks	1 per 20 or 1 per batch <LOR	<LOR
Samples extracted and analysed within holding times	Extracted within holding times	Yes
Comparability		
Standard operating procedures used for sample collection and handling	Suitable description of sampling procedures	Yes
Standard analytical methods used for all analyses	Analytical methods are referenced and NATA Accredited	Yes
Consistent field conditions, sampling staff and laboratory analysis	Consistent fieldwork team, single primary laboratory used	Yes
Limits of reporting appropriate and consistent	Reporting limits less than the appropriate site criteria	Yes
Completeness		
Appropriate and complete COC documentation	Supplied in report	No
Satisfactory frequency and result for QC samples	As per NEPM and AS 4482.1	Yes
Data from critical samples is considered valid	COC	Yes

Table Notes: * specifically discussed in Auditor comments

The QA/QC assessment and interpretation was generally found to be adequate. The field QA/QC program implemented by the consultant included the collection of intra-laboratory and inter-laboratory duplicates. No discussion of RPD results was included with reported.

It is unfortunate that rinsate samples, trip spike and trip blank samples did not appear to be collected across the sampling program. The consultant noted that adequate decontamination procedures were in place, however, it would have been beneficial to have collected additional QA/QC samples to support the veracity of this statement. Considering that the purpose of such samples is to determine the potential for cross-contamination resulting in the error of stating that contamination is more widespread than it is, this is not a primary concern for the Site Audit objective. Chain of custody documentation was provided with the investigation reports for the laboratory batches submitted to the nominated project laboratories.

Discussion of laboratory QA/QC results is provided by the consultant, and where available laboratory QA/QC information has been appended to the report in addition to the laboratory analytical reports. In general, the laboratory QA/QC results indicate that the laboratory analytical program was achieving adequate levels of precision and accuracy during the time when samples from the site were being analysed. As such, the sampling, analytical and quality protocols undertaken by the consultant were considered satisfactory and the data is adequately reliable for the purpose of assessing the contamination status of the site for the proposed land use.

Overall, the Auditors review of the QA/QC measures employed by the consultant and the laboratory was found to provide adequate information for the purpose of characterising and validating the site.

7.11.3 Site Validation Criteria

The site remediation validation criteria have been derived from sources approved by the NSW DECCW under s.105 of the *Contaminated Land Management Act 1997* and are considered appropriate for the protection of human health and the environment at the site with consideration to the site land use.

The criteria adopted by the consultant are appropriate in the context of the primary contaminants of concern.

7.11.4 Validation Results

The consultant discussed the results and provided tables that adequately presented the analytical results from the laboratory reports. Spot checks of the concentrations of contaminants reported by the consultant were undertaken and found to be consistent with those reported by the laboratory. The laboratory procedures were appropriate for the identified contaminants of concern and the adopted remediation criteria against which the results were compared.

The site plans provided by the consultant were detailed and adequately identified the site and fill source areas.

The conclusions reached by the consultant in relation to the validation of the Stage 2C material conducted and required to render the site suitable for the proposed land use are considered appropriate.

8 Consideration of Regulatory Requirements

As the Site Audit is not a specific requirement of a development consent or approval given under the *Environmental Planning and Assessment Act 1997* it has not been conducted as a Statutory Site Audit as defined by s 47 of the *Contaminated Land Management Act 1997*.

The remediation work was undertaken under a Development Application determined by Fairfield City Council.

A variation of the EPL to remove the land included in the Site Audit site does not have an impact on the future management of the site from potential land fill gas, however, the continuation of the licence on the lands of the former landfill and regulatory overview of monitoring under those licence conditions is of benefit to the review of risk from landfill gas on the neighbouring lands including the Site Audit site.

Information on the source, classification and disposal of waste that disposed off the site was provided in the validation report and the information provided was reviewed by the Site Auditor and there were not any inconsistencies identified that would indicate that waste was not disposed of to a facility able to accept the waste.

9 Evaluation of Site Land Use Suitability

The NSW DEC (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* prescribe that during an assessment of the suitability of a site for an existing or proposed land use in an urban context, Site Auditors must follow the decision-making process for assessing urban redevelopment sites of the Site Audit Guidelines (NSW EPA, 2017).

For the purposes of this Site Audit the objective is to determine whether the site is suitable for commercial/industrial land use.

The findings of the Site Audit are presented for each requirement of the decision process:

All site assessment, remediation and validation reports follow applicable guidelines.

The documents provided by the consultant meet the requirements of the Site Audit in relation to the *Guidelines for consultants reporting on contaminated sites* (NSW EPA, 2020).

Any aesthetic issues relating to site soils have been adequately addressed.

Aesthetic issues have been considered in the works undertaken at the site with the consultant (ERM, April 2023) confirming the absence of staining, odours, and significant anthropogenic inclusions. Soils have been validated to assess suitability for ongoing commercial/industrial land use. Soil validation has included detailed visual inspection and soil sampling for laboratory analysis for the presence of asbestos (where applicable).

Soils have been assessed against relevant health-based investigation levels and potential for migration of contamination from soils to groundwater has been considered.

Soils were typically assessed against the appropriate and equivalent health-based and ecological investigation levels during assessment and validation works. Validation results have confirmed that soils present on-site meet with the nominated assessment criteria and do not present an unacceptable risk to human health or the environment.

Groundwater was encountered during the initial investigation works of the wider development area with analytical results indicating the presence of several detections of contaminants of concern, likely associated with expected background conditions (several heavy metal concentrations) and historical on-site activities (phosphorus and nitrogen associated with Transpiration Area) within the Stage 3 area to the north of the site. Evidence of gross contamination has not been identified during the extensive cut and fill soil works which included excavation and assessment of fill and soil at the site. Given the reported analytical results for the site across the various programs of work, historical site uses and on-site activities the potential for migration of contamination from soils to groundwater is low.

Groundwater (where relevant) has been assessed against relevant health-based investigation levels and, if required, any potential impacts to buildings and structures from the presence of contaminants considered.

Assessment of groundwater was completed as part of the Phase 2 Assessment. Evidence of gross contamination was not encountered. Some detections of heavy metals and hydrocarbons were reported. The Site Auditor considers that the reported groundwater detections are not representative of a risk to human health or the environment. The nearest ecological receptor is located approximately 850 m off-site, and on-site

groundwater uses are not reported. Following review of the site setting and historical site activities/uses, it is considered that there was unlikely to be any significant or widespread groundwater contamination on-site and, as such, groundwater has not been subject to additional remedial works or further validation.

Hazardous ground gases (where relevant) have been assessed against relevant health-based investigation levels and screening values.

Assessment of hazardous ground gases (landfill gas and soil vapours) has been undertaken along the western boundary of Stage 2 and across the Stage 2 area to the south of the Stage 3A site. Landfill gas has been identified within sub-surface of the former Camide Landfill site. Gas mitigation measures comprising a biofiltration trench have been installed at the perimeter of the waste cell. Collection of a range of site-specific landfill gas data has allowed development of a reasonably robust CSM. This site-specific monitoring data and landfill gas risk assessment has been utilised to evaluate potential risk to the Stage 2 and Stage 3 area from the migration of landfill gas from the former landfill. The landfill gas risk assessment has identified a low risk of landfill gas migration from the former Camide Landfill onto the Stage 2 area and no specific protection measures were determined to be required for development, as Stage 3 lies to the north of Stage 2 and is further from the landfill it is considered that Stage 3 is even less likely to be affected by landfill gas migration.

Any issues relating to local area background soil concentrations that exceed relevant investigation levels have been adequately addressed in the site assessments report(s).

No local background soil concentrations above the appropriate criteria were identified as an issue.

The impacts of chemical mixtures have been assessed.

No issues relating to chemical mixtures in relation to the identified contaminants of concern are expected.

Any potential ecological risk has been assessed.

While ecological-base criteria were not adopted during early investigation of the site, soils were assessed against the appropriate and equivalent ecological investigation levels during subsequent material assessment and validation works. Investigation results did not exceed the adopted ecological investigation levels confirming that soils at the site do not present an unacceptable risk to ecological health.

Any evidence of, or potential for, migration of contaminants from the site has been appropriately addressed, including potential risks to off-site receptors, and reported to the site owner or occupier.

There is not considered to be any evidence of, or potential for, off-site migration of contaminants identified at the site.

The site management strategy (where relevant) is appropriate including post-remediation environmental plans.

It is considered that all known soil and groundwater contamination has been addressed with the completed assessment and validation works at the site. Landfill gas has been identified at the former landfill site to the southwest of the Site Audit area. A risk assessment

evaluated a low risk of landfill gas migrating from the former landfill onto the Site Audit area and no further on-site management will be required.

The decision-making process prescribed in the NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* (NSW EPA, 2017) has been followed by the Auditor and the site is considered suitable for the proposed commercial/industrial land use.

10 Conclusions

The investigation, assessment and validation work reported and reviewed are considered to have met the requirements of NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* and other guidelines approved under s.105 of the *Contaminated Land Management Act 1997* and the objectives of the Site Audit and the Site Auditor is satisfied that the assessment and validation works have been appropriately undertaken.

The NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* prescribe that during an assessment of the suitability of a site for an existing or proposed land use in an urban context, Site Auditors should follow the decision-making process for assessing urban redevelopment sites provided in the guidelines.

The decision-making process prescribed in the NSW EPA (2017) *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)* (NSW EPA, 2017) has been followed by the Auditor and the site is considered suitable for the proposed commercial/industrial land use. A risk assessment evaluated a low risk of landfill gas migrating from the former landfill onto the Site Audit area and no further on-site management will be required.

In conclusion, a Site Audit Statement will be issued certifying that, in the opinion of the Site Auditor that the site is suitable for commercial/industrial land use.

11 Limitations

This Site Audit Report has been prepared for use by the client who has commissioned the works in accordance with the project brief only and has been based in part on information obtained from the client and other parties. Enviroview Pty Ltd or the Site Auditor accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This Site Audit Report should not be reproduced without prior approval by the client or amended in any way without prior approval by the Site Auditor and should not be relied upon by other parties who should make their own enquires other than regulatory and planning authorities as required under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*.

The data used to support the conclusions reached in the Site Audit have been obtained by other consultants and have been audited with a reasonable level of scrutiny, care, and diligence. Every reasonable effort has been made to identify and obtain all relevant data, reports and other information that provide evidence about the condition of the site, and those that were held by the client and the client's consultants, or that were readily available. No liability can be accepted for unreported omissions, alterations or errors in the data collected and presented by other consultants. Accordingly, the data and information presented by others are taken and interpreted in good faith.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations reviewed, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analyses selected are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site that was not identified in the site history, and which may not be expected at the site.

Changes to the subsurface conditions may occur after the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations presented in this Site Audit Report are based on the information obtained at the time of the investigations.

The Site Audit Report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, Enviroview Pty Ltd and the Site Auditor reserves the right to review the report in the context of the additional information.

12 References

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Appendix A: Audit Interim Advice

5th November 2020

Wayne Pasalich
CSR Building Products Ltd
C/- Claire Kollaras
Calibre Consulting
PO Box 8300
BAULKHAM HILLS BC
NSW, 2153

Via email: Claire.Kollaras@calibreconsulting.co

Dear Wayne

RE: Interim Site Audit Advice 04 – Review of Landfill Gas Risk Assessment and Environmental Management Plan, Stage 2, 327-335 Burley Road, Horsley Park, NSW 2175.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 327 – 335 Burley Road, Horsley Park NSW 2175 (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, in relation to contaminated land, that the site is suitable for ongoing commercial/industrial land use, in relation to the guidelines made or approved by the NSW EPA.

A Site Audit Interim Advice is provided at a particular stage of the Audit to assist in the management of contamination issues with regard to the requirements of the Site Audit. An Interim Advice does not constitute a Site Audit Statement or a Site Audit Report and should not be considered pre-emptive of the final audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit following the remediation of the Site.

The purpose of this Interim Advice is to provide comments by the Site Auditor regarding the following documents:

DBD Environmental. *Landfill Gas Risk Assessment Stage 2, Horsley Park*. Report No. 0093_DBD_RPT0002A, dated 2 September 2020.

Biogas Systems Australia. *Environmental Management Plan for Landfill Gas, Horsley Park Landfill*. Report No. 0103_RPT0075.C, dated 2 September 2020.

Review Comments

Landfill Gas Risk Assessment

1. Section 1 Introduction. It is stated that the risk assessment is based on works previously conducted, however the scope of works and report details the installation of wells and monitoring conducted for the purpose of the risk assessment. Please clarify
2. Section 1.1 Background.
 - a. Confirm the distance between the waste, the Stage 2 boundary and proposed development.
 - b. I generally advise consultants to not directly make reference to a site audit and the process of a site audit as it is an independent review of the report and the report objectives.
3. Section 2.1 Stage 2 Site Summary of Previous Investigations.
 - a. The list of reports does not include the validation report for the Stage 2 area or southern bund. The Stage 1 validation report is listed and its relevance to the to the Stage 2 risk assessment is unclear. Clarification required.
 - b. It is stated that a summary of the most relevant information is presented in the following section. It is unclear what information this is referring to.
4. Section 2.2 Former Camide Landfill Summary of Relevant Investigations. The Risk Assessment should provide a detailed review of reports and pertinent information that is relevant to the risk assessment process, please update.
5. Section 3.1 Site Details. Confirm the property description details as they differ from that provided using <https://maps.six.nsw.gov.au> title information – confirmation may be required from the client regarding the current Lot and DP for the site.
6. Table 3.3 Summary of the Former Camide Landfill. The table indicates that putrescible wastes were not recorded at the former landfill site, however subsequent sections of the report refer to the potential presence of putrescible wastes. It would be beneficial to include a footnote clarifying the potential presence of putrescible wastes, the composition of which may be a source of landfill gas generation.
7. Section 4 Review of Landfill Gas Monitoring Records and Site Assessments. Review and revise the opening sentence of this section.
8. Section 4.1 Landfill Gas Monitoring Well Construction and Appropriateness for Monitoring. Confirm the number of previously installed wells.
9. Section 4.3 Summary of Historical LFG Results from Former Camide Landfill. With consideration of the purpose of the risk assessment and statements made in latter sections of the report, a summary of the monitoring results and trends from historical monitoring events should be provided in the report. Particular reference should be made to data reported before and after the installation of the biofiltration trench. It would also be helpful to include the installation date of the trench on the attached graphs.
10. Section 4.4. Conclusions. Refer to Comment #9. The consultant has included conclusive statements about the effectiveness of the bioremediation trench. It would be beneficial to provide some context on the data collected and assessments conducted to support this conclusion.

11. Section 5 Initial Conceptual Site Model. Confirm which area the CSM has been developed for. It is unclear in the text if the CSM relates to Stage 2 or the former landfill area. Section 5.4 suggests the CSM has been developed for the landfill site. Please clarify.
12. Section 5.1 Source. Refer to Comment #6. The consultant discusses the likely presence of putrescible wastes within the landfill. Consideration should be given to noting this in Table 3.3 (Waste Composition).
13. Section 6 Perimeter Well Installation and LFG Monitoring. Justification should be provided for the limited parameters monitored as part of the assessment, including why VOCs, hydrocarbons and other common landfill gases have not been assessed. Further discussion regarding the presence and potential migration of leachate should be included.
14. Section 6.2.3 LFG Monitoring Network.
 - a. The figures referenced do not provide the stated information.
 - b. Figure 1 does not depict the location of the wells.
 - c. Figure 2 does not show the location of the background well. Please clarify the location and well ID of the background well.
 - d. The label for GM40 is not displayed on Figure 4.
 - e. Table 6.1 describes GM21, GM22, GM28, GM29 as being “*in waste*”. Are these wells located within the landfill waste, or between the waste and the trench?
15. Section 7.2 Water Levels in LFG Monitoring Network. As the wells have not been surveyed, how has the consultant determined/estimated the invert depth of the trench in relation to groundwater levels? Surveying of the wells and comparison to the survey data for the trench is imperative to the development of the conceptual site model and ongoing management of the site.
16. General Comment. The report is lacking any discussion of the assessment criteria utilised for the analysis of data and associated risk. The consultant should provide a dedicated subsection discussing the adopted threshold values. Provide justification in support of adopted thresholds and full source references for each of the adopted values. Comparison of the recorded concentrations against the relevant criteria should be included in the discussion of results (Section 7.0).
17. Section 7.3.1 Methane. The consultant states that wells GM22, GM28 and GM29 are located *inside of the biofiltration trench and are indicative of landfill conditions*. Please clarify the location of these wells which are understood to be located between the landfill waste and biofiltration trench.
18. Section 7.3.6 Volatile Organic Compounds.
 - a. Additional information is required regarding the reported VOC concentrations. Please provide the data to support the statements made regarding historical VOC measurements and trace analysis, impacts of PVC cement/glue on reported concentrations, and VOC concentrations not posing a risk to future site users.
 - b. Which wells had their height extended and what ‘*filling*’ is being referred to?
19. Section 7.4 Continuous In-Situ Monitoring. For clarity, the definition of a worst-case meteorological event should be specified in the report.

20. Section 8 Updated Conceptual Site Model. Clarification is required as to which area the CSM has been developed for.
21. Section 8.1 Source.
 - a. Reference is made to waste materials being placed within the site. For clarity, maintain consistency in reference to the site.
 - b. In the discussion of landfill gas sources, the consultant refers to significant filling having been conducted within Stage 2C. This statement should be clarified to ensure it is not confused with the landfill waste mass filling.
 - c. The consultant states that VOCs have previously been assessed in the perimeter network wells and not found to be a major contributor sufficient to cause a vapour intrusion risk to development. It would be beneficial to provide some context on the data collected and appropriate discussion to support this key conclusion.
22. Section 8.2 Potential Pathways. The discussion of potential pathways would benefit from the inclusion of relevant site specific information, including the geology encountered and presence of underground services.
23. Section 8.4 Summary of the LFG Regime. The consultant should clarify that the gas regime being discussed (second paragraph) relates to the landfill present adjacent the site, not associated with the wastes discussed in the first paragraph.
24. Table 8.1 Stage 2 Conceptual Site Model. The use of the term VENM (second column) should be reconsidered as it not an appropriate term for the description of natural geology underlying the site (being a waste classification in NSW legislation).
25. Section 9.3 Preliminary Screening. Cross reference to Section 0 requires correction.
26. Table 9.4 highlights the importance of understanding the relationship between groundwater levels and the invert depth of the biofiltration trench in assessing the risk to the site. As such, survey of the wells should be conducted and the risk assessment revised as necessary.
27. Section 9.5 Level 2 Risk Analysis and Assessment.
 - a. Text required formatting.
 - b. The report states that GM20 is not indicative of perimeter conditions as it is located too close to the biofiltration trench. Section 2.4 of the report states that GM20 may have been damaged but is still suitable for sampling. Significant fluctuations in groundwater levels have also been recorded in this well. The figures indicate minimal distance between the perimeter well GM44 and GM20 and the borelog for GM20 indicates installation within natural shales. Please confirm the distances between the biofiltration trench, GM20 and GM44. Is the consultant able to make a more conclusive discussion regarding the findings and results reported for GW20? Provide comment on the reliability of GM20 and the monitoring network.
 - c. The calculation of risk has been determined based on data collected following installation of the trench. To support the risk assessment findings, it would be beneficial to clarify, on the data summary tables and associated graphs, the date of trench installation.
 - d. The report should clearly state the gas protection measures required by the development to meet the Characteristic Situation 2 assessment. The floor slab requirements should specified.

28. Section 10 Discussion and Conclusions.

- a. Review this section with consideration to comments provided in this Interim Advice on other subsections of the report and update accordingly.
- b. Second paragraph – the discussion of gas migration underneath the biofiltration trench does not consider the depth of groundwater or data gap associated with lack of survey data.
- c. Third paragraph should detail the concrete slab requirements associated with the development.
- d. Fifth paragraph – the protection measures associated with the concrete slab should be discussed.
- e. Have the data gaps listed in Section 5.4 been addressed?

29. Figures. Cross Section A depicts the trench intersecting the water table. Cross Section B has the trench sitting above the water table with potential gas migration underneath. Is the biofiltration trench known to intercept the water table in some areas and not others, or are two different scenarios being depicted?

30. Graphs. It would be helpful to include a line on the graphs indicating the installation date of the biofiltration trench. The dates provided along the bottom axis are difficult to read.

31. Tables. Include all data utilised in the calculation of gas screening values, including data collected prior to the installation of the biofiltration trench.

Environmental Management Plan

32. Section 1.1 Background. The fourth paragraph refers to proposed industrial development to the north of the landfill and focuses on the Stage 1 area. Revise to include the proposed development to the south and east of the landfill (Stage 2).
33. Section 1.2 EMP Objectives. Review the opening sentence to provide greater assurance and certainty. It would be beneficial to refer to the EMP as a document that *will be enforced*, as opposed to a plan *“that can be enforced”*.
34. Section 2.2.1 Landfill Closure Plan. Provide a reference for the RAP.
35. Section 2.2.3 Remedial History. Clarify opening sentence. Does the consultant mean to say the landfill has undergone years of assessment since its closure or implementation of the LCP?
36. Section 2.3.4 Landfill Gas. The Stage 2 Landfill Gas Risk Assessment is not mentioned.
37. Section 3.1 Introduction. Amend typographical errors in first and second sentences. Typographical errors are also noted in second paragraph.
38. Section 3.2 Regulatory Requirements. It would be beneficial to expand this section to provide an appraisal of which guidelines are to be applied in the evaluation of landfill gas monitoring data collected as part of this EMP. It is reported that the subject site of the EMP, the former Camide landfill, will be assessed through the application of NSW EPA (2016) and its associated threshold values. When evaluating potential risk presented to off-site properties, provide some clarity on what guidelines will be adopted. As access to the surrounding off-site properties will not be available for the collection of data, the consultant should clearly set out how it is proposed that the guideline documents (NSW EPA 2016 and NSW 2012) will be applied in order to determine potential risk to off-site receptors.
39. Section 3.4.4 Landfill gas analyser.
 - a. The consultant should include comment to ensure the monitoring instruments have the required sensitivity for comparison against threshold criteria.
 - b. A summary table of threshold values for the assessment of monitoring data is presented in Table 7. The consultant should provide a dedicated subsection discussing the proposed threshold values to be adopted and applied to each type of monitoring data proposed for collection. Provide justification in support of adopted thresholds and include how they can be applied to support the EMP objectives in relation to measuring and monitoring the potential risk to adjoining properties. Provide full source references for each of the adopted threshold values.
 - c. Table 7 – clarification required on the proposed threshold for carbon dioxide. Why has a threshold of 1.5 % v/v above the background levels detailed in Appendix B been proposed? Provide justification in support of this approach for the evaluation of risk to off-site properties.
 - d. Provide details on how water levels within monitoring wells are to be assessed/interpreted to evaluate the effectiveness of the biofiltration trench.
40. Section 3.4.6 Corrective / Contingency Actions.
 - a. Corrective actions are only noted as required when methane concentrations exceed the reported threshold. Will a threshold value also be included for carbon dioxide?
 - b. Will notification of any parties (e.g. property owner or others listed in Table 17 of the EMP) occur if a greater frequency of monitoring is required? It is noted that the EMP

recommends annual reporting of monitoring data. How and what information associated with corrective action(s) will be communicated outside of this annual reporting schedule?

- c. The consultant should define what timeframe these observations (i.e. persistent exceedances, increasing trends) must be recorded over prior to triggering further assessment in accordance with NSW EPA (2012).
- d. Clarify how the “*potential risk to off-site land uses*” will be identified.
- e. Clarification is required regarding what mitigation measures may be put in place. Reference is made to the landfill gas risk assessment. Provide a reference to the relevant landfill gas risk assessment document for the site. As no access is available to off-site properties, all proposed mitigation must take place within the former Camide landfill property boundary.

41. Section 3.5.3 Performance Indicators. It is noted that the biofilter media is to be in good condition, at correct moisture levels and not subsided. Further discussion on inspection of the media or how it is determined that moisture levels are correct is not set out in the EMP. Clarification required.
42. Section 3.5.4 Monitoring requirements. The EMP refers to NSW EPA (2016) and the EPL 123 for monitoring requirements for surface monitoring. It would be beneficial if the consultant could include a monitoring protocol within the EMP for clarity. Also provide details of the proposed monitoring quality assurance measures to be adopted. This will ensure consistency in data collection across the proposed program of monitoring. This information can be attached to the EMP as an appendix or incorporated within the main text.
43. Section 3.5.9 Corrective Actions. The 500 ppm threshold for implementation of corrective actions should be defined in a separate subsections. Refer to Comment #39b.
44. Section 3.6.1 Requirements. The consultant reports that the build up of gas in subsurface structures may have the potential to be explosive or present risk of asphyxiation. Methane has been listed as a performance indicator. Are any other landfill gases considered relevant for assessment with respect to risk of asphyxiation?
45. Section 3.6.3 Performance Indicators. The performance indicators or threshold criteria utilised within the EMP should be defined in an appropriate section of the EMP. Refer to Comment #39b.
46. Section 3.6.4 Monitoring Requirements.
 - a. Is reference to NSW EPA 2016 appropriate for monitoring of enclosed spaces that are not on or within the actual landfill footprint? Consider this comment when completing a review of guidelines (refer to Comment #38).
 - b. The EMP currently refers to subsurface structures present within Stage 1. Are structures present within Stage 2 (current or proposed) that also require consideration?
 - c. Are any services proposed to cross from the former landfill site into the adjacent development areas? Provide details.
47. Section 3.6.5 Landfill gas analyser. Clarification is required as to why only methane is to be compared against a threshold value and other gases are to be recorded for information purposes only. Would it be beneficial to provide all appropriate thresholds for potential

landfill gases to allow evaluation of potential landfill gas migration and accumulation within sub-surface structures which have the potential to create a pathway off-site?

48. Section 3.6.7 Corrective Actions.

- a. Refer to Comment #40 as it is also applicable to Section 3.6.7.
- b. The consultant should provide corrective actions/contingency plan in the event that potentially explosive conditions are identified in sub-surface structures/pits.

49. Section 5.1 General. It is recommended that the annual reporting include an assessment made of the risks present at the site boundary as per assessment procedures set out in NSW EPA (2012). Ongoing assessment of the Gas Characterisation Score as measured at the boundary would be a useful indicator and assessment of risk.

50. General Comment. Is it anticipated that any ground disturbance activities will occur within the former landfill area and/or biofiltration trench? Does allowance within the EMP need to be made to set out management and/or monitoring requirements associated with ground disturbance activities including hazardous gases, confined space, reinstatement requirements for cap and or biofiltration trench? Will this be captured elsewhere in other reporting? Clarification required.

51. General Comment. Previous reporting for the site by Biogas Systems Australia noted the importance of groundwater levels and potential pathways for gas migration with changing groundwater levels. Provide details of how this will be monitored and what actions will be undertaken in the event of a change in depth to groundwater.

52. General Comment. It would be beneficial to clarify whether the controls and monitoring requirements presented in the EMP are contingent on the site layout and general landuse of the former landfill remaining relatively unchanged. If this is the case, provide an overview of procedures to be implemented in the event of changes in landuse or ground disturbance activities.

I look forward to seeing these points addressed. If you require additional information or clarification, please do not hesitate to contact me. Thank you for your time regarding this matter.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd

30th November 2020

Wayne Pasalich
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C/- Claire Kollaras
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PO Box 8300
BAULKHAM HILLS BC
NSW, 2153

Via email: Claire.Kollaras@calibreconsulting.co

Dear Wayne

RE: Interim Site Audit Advice 04 – Review of Updated Landfill Gas Risk Assessment and Environmental Management Plan, Stage 2, 327-335 Burley Road, Horsley Park, NSW 2175.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 327 – 335 Burley Road, Horsley Park NSW 2175 (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, in relation to contaminated land, that the site is suitable for ongoing commercial/industrial land use, in relation to the guidelines made or approved by the NSW EPA.

A Site Audit Interim Advice is provided at a particular stage of the Audit to assist in the management of contamination issues with regard to the requirements of the Site Audit. An Interim Advice does not constitute a Site Audit Statement or a Site Audit Report and should not be considered pre-emptive of the final audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit following the remediation of the Site.

The purpose of this Interim Advice is to provide feedback on the revisions made in the following reports:

DBD Environmental. *Landfill Gas Risk Assessment Stage 2, Horsley Park*. Report No. 0093_DBD_RPT0002A, dated 11 November 2020.

Biogas Systems Australia. *LFG Management Plan, Environmental Management Plan for Landfill Gas, Horsley Park Landfill*. Report No. 0103_RPT0076.C, dated 13 November 2020.

DBD Environmental. *Response Letter – Auditor Comments of Landfill Gas Risk Assessment and Environmental Management Plan, Stage 2, 327-335 Burley Road, Horsley Park, NSW 2175*. Letter Ref. 0093_CSR_Auditor_Response_Letter, dated 13 November 2020.

The revised *LFG Environmental Management Plan* (Biogas Systems, 2020) has been reviewed and the Auditors comments have been satisfactorily addressed.

Whilst most comments have been addressed by the revised *Landfill Gas Risk Assessment* (DBD Environmental, 2020), a couple of issues remain outstanding which require attention to finalise the document and enable close-out of the Site Audit.

Comments Provided in Interim Advice 04

1. Comment #13 Section 6 Perimeter Well Installation and LFG Monitoring. The justification regarding the limited analytical suite has not been added in this section as stated in the *Response Letter*, nor any discussion regarding the presence and potential migration of leachate.
2. Comment #16 General Comment – Assessment Criteria. The consultant has provided a new subsection discussing the assessment criteria, however clarification is required regarding the criteria adopted for the purpose of the risk assessment. The following comments are made regarding Section 7.4 of the revised report.
 - a. The opening sentence refers to the document as an EMP, please amend.
 - b. The consultant states that criteria provided by the *Guidelines for the Assessment and Management of Sites Impacted by Hazardous Ground Gases* (NSW EPA 2012) is considered the most applicable. The consultant should consider the more recent NSW EPA (2020) *Assessment and management of hazardous ground gases*.
 - c. Table 7.2 utilises NEPM criteria which is not discussed in this section.
 - d. It would be beneficial to provide a table summarising the criteria adopted for the purpose of the risk assessment, for all analytes assessed, citing the source references for the adopted values. Appropriate justification for the adopted criteria is required.
 - e. Table 7.1 – please provide a footnote to the table referencing the tabulated criteria.
3. Formatting Error – Figures 7.1, 7.2, 7.3, 7.4 and 7.5 (within body of the report) were not included or able to be read in the revised report provided for review by the Auditor.

These issues should be addressed in finalising the document. If you require additional information or clarification, please do not hesitate to contact me. Thank you for your time regarding this matter.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd

22 July 2021

Wayne Pasalich
CSR Building Products Ltd
C/- Claire Kollaras
Calibre Consulting
PO Box 8300
BAULKHAM HILLS BC
NSW, 2153

Via email only: Claire.Kollaras@calibregroup.com

Dear Wayne,

RE: Interim Site Audit Advice – Review of Landfill Gas Risk Assessment – 327-335 Burley Rd, Horsley Park, NSW 2175.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 327 – 335 Burley Road, Horsley Park NSW 2175 (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, in relation to contaminated land, that the site is suitable for ongoing commercial/industrial land use, in relation to the guidelines made or approved by the NSW EPA.

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The purpose of this Interim Advice is to provide feedback on the revisions made in the following reports:

ERM. *Landfill Gas Risk Assessment, Horsley Logistic Park, 327-335 Burley Rd, Horsley Park, NSW 2175.* (Report Ref.: S010861_0565895). 14 April 2021.

Auditor Review Comments – ERM (2021) Landfill Gas Risk Assessment

1. Section 4.3, Gas Sampling. In the consultant's perspective would seasonal changes influence the measured soil gas concentrations over the course of a year? How representative was the sampling period in relation to climatic conditions over the course of a typical year? Please discuss.
2. Section 5.3, Discussion. The auditor agrees with the following points that have been sufficiently demonstrated through the landfill gas risk assessment (ERM, 2021):
 - a. Methane from the Camide landfill is not (with minor low range and low flow occasional exceptions) migrating onto the site within the subsurface.
 - b. Carbon dioxide is present within the site subsurface at unusually high levels however the source is likely a combination of landfill and degradation of organic matter within the

subsurface fill across the site and predominantly within blended fill materials that included organic-rich dam sediments. The consultant's perspective that the latter of these two influences is more significant is accepted.

However, while CO₂ is greatest in the area containing organic-rich fill material in the southeast of the site – it is lowest in central portions of the site (i.e. GM207, GM208, and GM303) – and also elevated in areas adjacent to the landfill (i.e. GM201, GM202, GM203, GM204, GM205). Therefore, it appears that CO₂ is either migrating or forming on the western side of the site in relation to the landfill.

Therefore, in the auditor's perspective – the influences of the CO₂ concentrations on the eastern side of the site (i.e. GM209 and GM210) should be discussed in this section separately or in contrast to the influences on the western side (i.e. GM201, GM202, GM203, GM205) of the site.

3. Section 6.6, Potentially Complete SPR Linkages. Table 6-1 – first row – the auditor disagrees that there is no linkage between the CO₂ from the landfill and the site based on the discussion in the prior comment.
4. Section 7.1 and Appendix A2 – Gas Screening Value (GSV).
 - a. While it is noted that the *Hazardous Ground Gas guidelines* (NSW EPA, Dec 2019) state that (in S.4.3.4) the gas screening value is an "overall site value" – they also state that "*a large site may be subdivided where it is appropriate to do so and the rationale underpinning the stratification is explained*".
 - b. The issue here (see Appendix A2) is that the maximum flow rate for the site was observed within wells on the eastern side of the site near the landfill (GM204). Whereas the maximum CO₂ concentration was observed within wells on the western side of site where organic-rich blended fills were placed (GM209). When used together – these two maximum values lead to a GSV greater than the guideline value of 0.07 for 'very low risk'. However, if the site were subdivided into areas influenced by the landfill and areas influenced by fill – then neither area would result in a GSV greater than the guideline value.
 - c. This distinction should be evaluated as to whether it could simplify the discussion of characteristic situation (CS) in Section 7.2 of the report.
5. Section 8, Conclusion. Please revise discussion in the conclusion consistent with discussion revisions in relation to the above comments.
6. General Comment – Environmental Management Plan (EMP). While the auditor in general agrees with the outcome of the ERM Landfill Gas Risk Assessment for the site – the results, in conjunction with the auditor's review of associated documents for the adjacent landfill site, clearly demonstrate that:
 - a. While the site is currently low risk with respect to landfill gas – this is achieved primarily through the management of the adjacent landfill site including the construction of the biofiltration trench and routine maintenance and monitoring of landfill gas (LFG) perimeter wells on the landfill site.
 - b. Enforcement of an appropriate EMP for the landfill site should be contractually tied to the condition of sale for the Stage 2 site/development. Please advise whether a revised/updated EMP is planned.
 - c. Please provide the auditor a copy of the language/conditions that are proposed for insertion into the contract of sale for the property with regard to contamination, the EMP, and monitoring and/or access issues for the site(s).

- d. Upon review of the EMP for the Horsley Park Landfill (Biogas Systems, Sept 2020, Ver_C) – the auditor observes that while “*notification to adjacent property owners where required*” is included in the EMP if corrective actions are required as a result of routine monitoring – there appears to be no requirement in the document for regular provision of monitoring results to either the adjacent property owners or an independent third party. In the auditor’s perspective – routine provision of inspection records, monitoring results, and associated reporting should be required to be routinely provided to the adjacent property owners and/or a nominated third party (such as an independent auditor or consultant).

These issues should be addressed in finalising the document. If you require additional information or clarification, please do not hesitate to contact me. Thank you for your time regarding this matter.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd

10 September 2021

Wayne Pasalich
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C/- Claire Kollaras
Calibre Consulting
PO Box 8300
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NSW, 2153

Via email only: Claire.Kollaras@calibregroup.com

Dear Wayne,

RE: Interim Site Audit Advice 02 – Review of revised Landfill Gas Risk Assessment – 327-335 Burley Rd, Horsley Park, NSW 2175.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 327 – 335 Burley Road, Horsley Park NSW 2175 (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, in relation to contaminated land, that the site is suitable for ongoing commercial/industrial land use, in relation to the guidelines made or approved by the NSW EPA.

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The purpose of this Interim Advice is to provide feedback on the revised document:

ERM. *Landfill Gas Risk Assessment, Horsley Logistic Park, 327-335 Burley Rd, Horsley Park, NSW 2175.*
(Report Ref.: S010861_0565895_v3). 4 August 2021.

The auditor previously reviewed this document (v2 dated 14 April 2021) as detailed in Interim Advice # 01 (0301-2010_01) dated 22 July 2021.

Together with the revised report (v3) the consultant (ERM) provided a response to the auditor's comments (from IA-01) with the responses letter dated 10 August 2021.

Auditor Review Findings – Acceptance of Revised Landfill Gas Risk Assessment

The auditor has reviewed the consultant's responses to comments document (10 August 2021) and the revised *Landfill Gas Risk Assessment* report (4 August 2021) and considers that the consultant's responses and the revised document are acceptable.

The auditor appreciates the additional discussion or clarification of issues raised and accepts the technical responses and edits to the report that were provided by the consultant.

Discussion of Environmental Management Plan, Enforcement, and Sale Agreement Requirements

The discussion (Comment #6) regarding the Environmental Management Plan (EMP) – the auditor agrees with the consultant’s response that the revised EMP (to be/currently being revised) to meet the updated Environmental Protection Licence (or as notice of surrender condition as relevant) is the appropriate document for long-term management of the landfill site and all its remedial components. It is further agreed that a separate EMP for the Stage 2 development site regarding the landfill (site) management is not required.

Regarding the issue of enforcement of the EMP – the auditor accepts that through the provisions of the (amended) EPL (or surrender notice) there should be a requirement for the EMP to be implemented.

However, one of the auditor’s points (#6 part (d)) regarding the discussion in Comment #6 (IA-01) was that while notification of “trigger breaches” to the site purchaser may be included in the EMP – the routine monitoring data should also be provided to the site purchaser for independent review/verification. This does not require a separate EMP – it is an issue that can be discussed and incorporated as pertinent into the current/ongoing update to the landfill EMP.

Regarding the last sentences in the consultant’s responses document:

“It would be possible, if agreeable to CSR and the site purchaser, to include a clause in the sale agreement requiring notification of the site purchaser in the event of a trigger breach, and provision of any action plan resulting. Such a clause would not require a separate EMP.”

The auditor is of the opinion that such a clause should be a requirement within the sale agreement as the owner of the Stage 2 site should be aware of any issues that could potentially affect the subject property. As previously requested – please provide the auditor a copy of the language/conditions that are proposed for insertion into the contract of sale for the property with regard to contamination, the EMP, and monitoring and/or access issues for the site(s).

These issues should be addressed in finalising the document. If you require additional information or clarification, please do not hesitate to contact me. Thank you for your time regarding this matter.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd

16 May 2022

Wayne Pasalich
CSR Building Products Ltd
C/- Claire Kollaras
Calibre Consulting
PO Box 8300
BAULKHAM HILLS BC
NSW, 2153

Via email: Claire.Kollaras@calibreconsulting.co

Dear Wayne

RE: Interim Site Audit Advice – Review of Validation Report, Stage 2C, 3 Johnstone Crescent, Horsley Park, NSW 2175.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 3 Johnston Crescent, Horsley Park NSW 2175 (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion, in relation to contaminated land, that the site is suitable for ongoing commercial/industrial land use, in relation to the guidelines made or approved by the NSW EPA.

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The purpose of this Interim Advice is to provide comments by the Site Auditor regarding the following document:

ERM. *Validation Report, Stage 2C, 3 Johnston Crescent, Horsley Park NSW 2175*. Report No. 0449086_S011225, dated 13 April 2022.

Review Comments

1. Section 5.1 Site Description Prior to Remediation.

- a. Please provide further description, volumes and associated validation sample IDs for the "*large stockpiles of quarried brick making materials*" located within the eastern and northern portions of the site. Currently, this description does not correlate with the validation summary provided in Table 5.

- b. The consultant describes the further excavation of the quarry basin within Stage 2C down to natural shale and clay materials in order to obtain material to be used as fill across the wider development. This description does not correlate with the Fill Plan provided in Appendix F or the material source locations provided in Table 5. Please clarify the extent and purpose of the additional excavation conducted within the quarry basin, including confirmation of the volumes, validation samples and placement location(s).
2. Section 7.2.1 Soil.
 - a. Please clarify where the differing approaches of systematic and judgemental sampling were implemented during the validation works.
 - b. It is stated throughout the report that both in-situ and stockpile sampling were implemented for the assessment of onsite material for reuse, however there is no description provided regarding the methodology, location or extent of the in-situ assessment(s) conducted at the site. Please provide further description of the in-situ assessment(s) undertaken at the site to confirm the adequacy of the sampling approach and adherence to the MAIP.
 - c. It would be beneficial to provide descriptions of the *Material Source* areas listed in Table 5. The references utilised are not described or referenced elsewhere in the report.
3. Section 11 Materials Tracking.
 - a. An error with the cross-referencing is noted.
 - b. The volume provided for the imported road base material includes an asterisk, however no note is provided regarding this.
4. General Comment. Please provide the VENM classification reports for the material imported to the site from Lane Cove.
5. Tables. It would be helpful to present the analytical results separated in to the various areas/sources from where they were collected (i.e. as presented in Table 5).
6. Appendix C. Please provide all laboratory documentation so the analytical data can be verified.
7. Appendix E. Please provide a description for the photos included.

I look forward to seeing these points addressed. If you require additional information or clarification, please do not hesitate to contact me. Thank you for your time in regard to this matter.

Yours sincerely



James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd

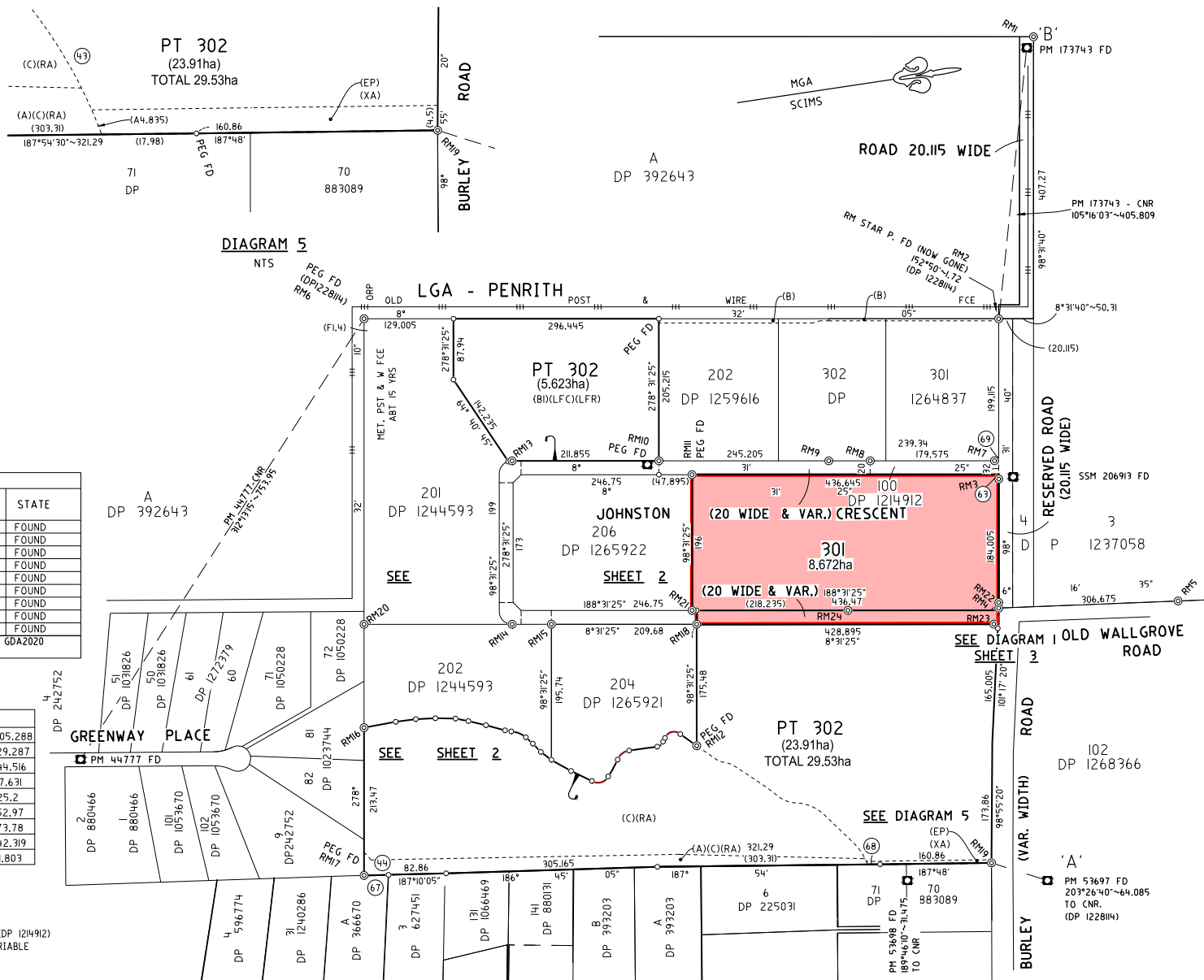
Appendix B: Site Plans

SCHEDULE OF REFERENCE MARKS

RM No	TYPE	BEARING	DISTANCE	ORIGIN
1	PM 173743 FD	30°44'	5.04	DP 1173181
2	DH&W FD	201°13'	17.39	DP 1214912
3	SSM 206913 FD	113°15'30"	6.735	DP 1214912
4	STAR P. FD	267°07'	10.975	DP 1228114
5	DH&W FD	274°18'	3.95	DP 1173181
6	STAR P. FD	196°43'15"	0.55	DP 1214912
7	DH&W FD	329°20'30"	5.355	DP 1214912
8	DH&W FD	302°58'45"	18.22	DP 1214912
9	DH&W FD	309°44'35"	3.925	DP 1214912
10	DH&W FD	284°30'50"	16.685	DP 1214912
11	DH&W FD	294°59'55"	3.53	DP 1214912
12	DH&W FD	282°00'	16.625	DP 1214912
13	DH&W FD	244°09'25"	4.085	DP 1214912
14	DH&W FD	270°51'50"	16.72	DP 1214912
15	DH&W FD	113°16'20"	3.465	DP 1214912
16	STAR P. FD	111°59'45"	3.355	DP 1256330
17	SSM 212098 FD	333°41'05"	9.495	DP 1244593
18	SSM 212099 FD	43°48'20"	9.305	DP 1244593
19	DH&W FD/GONE	97°16'35"	16.585	DP 1244593
20	DH&W FD/GONE	302°58'45"	18.22	DP 1244593
21	DH&W FD	98°31'05"	3.385	DP 1265922
22	DH&W FD	177°46'25"	18.315	DP 1265922
23	STAR P. FD	255°06'25"	4.75	DP 1256330
24	RM GIP FD	298°32'35"	18.755	DP 1265921
25	STP FD (DIST)	15°03'10"	14.345	DP 1265922
26	DH&W FD	21°59'40"	14.27	DP 1265922
27	DH&W FD	165°10'	3.325	DP 883089
28	STAR P. FD	187°05'30"	0.865	DP 1244593
29	DH&W	00°00'00"	100	PLACED
30	DH&W	00°00'00"	100	PLACED
31	DH&W	00°00'00"	100	PLACED
32	DH&W	00°00'00"	100	PLACED
33	DH&W	00°00'00"	100	PLACED
34	DH&W	00°00'00"	100	PLACED
35	DH&W	00°00'00"	100	PLACED

DIAGRAM 5

NTS



COORDINATE SCHEDULE

MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
PM 44777	298 741.551	6 253 465.76	B	N/A	SCIMS	FOUND
PM 44778	299 006.069	6 254 085.512	B	N/A	SCIMS	FOUND
PM 53697	299 120.227	6 254 810.2	B	0.02	SCIMS	FOUND
PM 53698	299 078.184	6 254 623.036	B	N/A	SCIMS	FOUND
PM 173743	297 927.616	6 254 985.256	C	N/A	SCIMS	FOUND
SSM 206913	298 541.531	6 254 846.775	B	0.02	SCIMS	FOUND
SSM 206921	298 444.93	6 254 310.834	B	0.02	SCIMS	FOUND
SSM 212098	298 422	6 254 145	U	N/A	SCIMS	FOUND
SSM 212099	298 645	6 254 112	U	N/A	SCIMS	FOUND

DATE OF SCIMS COORDINATES: 24/02/2023 MGA ZONE: 56 MGA DATUM: GDA2020
COMBINED SCALE FACTOR: 1.000082

DATUM LINE & SSM CONNECTIONS

FROM	TO	MGA GROUND	SURVEY
A' PM 53697	B' PM 173743	278°21'02" ~ 1205.291	278°21'02" ~ 1205.288
PM 173743	SSM 206913	~	102°42'45" ~ 629.287
SSM 206913	SSM 206921	~	190°12'58" ~ 544.516
SSM 206921	SSM 212098	~	187°49'53" ~ 167.631
SSM 212098	SSM 212099	~	98°28'21" ~ 225.2
SSM 212099	PM 44777	~	171°28'59" ~ 652.97
PM 44777	PM 44778	23°06'48" ~ 673.786	23°06'56" ~ 673.78
PM 44778	PM 53698	7°38'29" ~ 542.295	7°38'30" ~ 542.319
PM 53698	PM 53697	12°39'30" ~ 191.81	12°38'41" ~ 191.803

- (A) EASEMENT FOR TRANSMISSION LINE VARIABLE WIDTH (VIDE J930048)
 (B) EASEMENT FOR DRAINAGE OF WATER 3 WIDE AND VARIABLE WIDTH (DP 1214912)
 (B1) BENEFITED BY EASEMENT FOR DRAINAGE OF WATER 3 WIDE AND VARIABLE WIDTH DENOTED (B) IN THE PLAN (DP 1214912)
 (C) POSITIVE COVENANT (DP 1256330)
 (EP) RIGHT OF ACCESS 4.5 WIDE (DP 1272363)
 (LFC) POSITIVE COVENANT (DP 1244593)
 (LFR) RESTRICTION ON USE OF LAND (DP 1244593)
 (RA) BENEFITED BY RIGHT OF ACCESS 4.5 WIDE (XA) (DP 1272363)
 (XA) RIGHT OF ACCESS 4.5 WIDE (DP 1272363)

SEE SHEET 3 FOR SCHEDULE OF SHORT & CURVED DIMENSIONS

\\sydnad01.brown.com.local\projects\X13044 - CSR Horsley Park\Survey\DP AND S88B FOR REGISTRATION\Stage 3A Subdivision\DP & 88B REGISTRATION\DP Drawing\DWG\X13044-STG3A DP 1244594.dwg Saved: 13.08.2023, By: peng.wu

SURVEYOR

Name: KIM FRANCIS MURPHY
 Date: 17/03/2023
 Reference: X13044-STG3A
 LPI File Ref:

PLAN OF SUBDIVISION OF LOT 207 IN DP 1265922

LGA: FAIRFIELD

Locality: HORSLEY PARK

Reduction Ratio: 1:4000

Lengths are in metres.

REGISTERED

DP 1244594

Site Audit Site - Site Audit Statement 0301-2308

Proposed Lot 301 in Lot 207 of DP 126592 (Stage 3A)

3 Johnston Crescent

HORSLEY PARK, NSW

Date: 2 August 2023

Enviroview Pty Ltd

Proj: 600105_0301-2308

Figure 1

Site Audit Site Boundary



Appendix C:

Phase 1 Site Feature Location Plan (DLA, June 2013)



Legend

— Site Boundary

Appendix D: **Phase 2 Sample Location Plan (DLA, September 2013)**



LEGEND

● Sample Location



Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title:
Water Sample Locations– CSR Horsley Park.
Burley Rd, Horsley Park, NSW

Figure:

3

Project no.:

DLH1121

Date:

2.10.2013

Revision:

0



LEGEND

● Sample Location



Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title:
Water Sampling Locations, CSR Horsley Park.
Burley Rd, Horsley Park, NSW.

Figure:

1

Project no.:

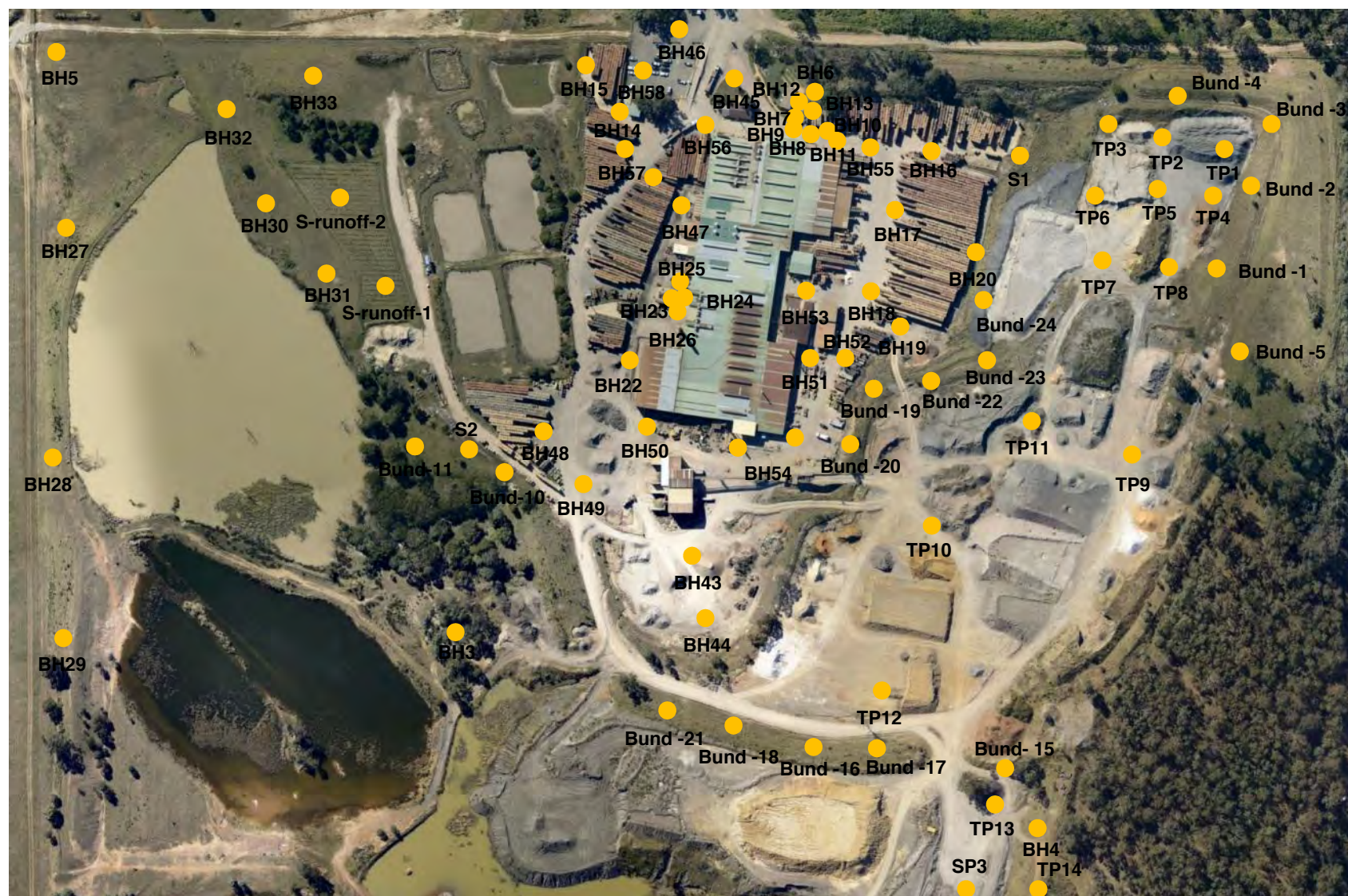
DLH1121

Date:

2.10.2013

Revision:

0



LEGEND

● Sample Location



Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title: Sample Location- North- CSR Horsley Park.
Burley Road, Horsley Park, NSW

Figure:

1

Project no::

DLH1121

Date:

23.09.2013

Revision:

0



LEGEND

● Sample Location



Sydney
Unit 2B/30 Leighton Place
Hornsby NSW 2077
Tel: 02-94761765
Fax: 02-94761557

Maitland
42B Church Street
Maitland NSW 2335
Tel: 02-49330001

Title:
Sample Locations–South- CSR- Horsley Park.
Burley Road, Horsley Park, NSW

Figure:

1

Project no.:

DLH1121

Date:

23.09.2013

Revision:

0

Appendix E: Phase 2 Summary Analytical Tables (DLA, September 2013)

Table 3a – Soil Assessment Criteria

Analytes	Thresholds (mg/kg dry wt)	Sources
Benzene	1	NSW Service Station Guidelines
Toluene	130 ^a	
Ethylbenzene	50 ^b	
Xylene (total)	25 ^b	
TPH: C ₆ -C ₉	65	
TPH: C ₁₀ -C ₄₀	1000	
Arsenic	3000	NEPM 1999 (as revised 2013), Table 1(A)1, Column D
Cadmium	900	
Chromium	3600	
Copper	240,000	
Lead	1500 300	NEPM 1999 (as revised 2013), Table 1(A)1, Column D NSW Service Station Guidelines 1994
Mercury	730	NEPM 1999 (as revised 2013), Table 5a, Table 1(A)1, Column D
Nickel	6000	
Zinc	400,000	
B(a)P (TEQ)	40	
Total PAH's	4000	
PCB	50	
Pesticides: (Aldrin/Dieldrin)	45	NEPM 1999 (as revised 2013), Table 5a, Table 1(A)1, Column D
Chlordane	530	
DDT+DDE+DDD	3600	
Odours	No Odours	NSW OEH

^a The toluene threshold concentration is the Netherlands Maximum Permissible Concentration (MPC) to protect terrestrial organisms in soil. This value was obtained by applying the US EPA assessment factor to terrestrial chronic No Observed Effect Concentration (NOEC) data. The MPC is an “indicative” value (Van de Plassche et al 1993: Van de Plassche and Bockting 1993).

^b Human health and ecological based protection level for toluene. The threshold concentration presented here is the Netherlands intervention value for the protection of terrestrial organisms. Other considerations such as odours and the protection of groundwater may require a lower remediation criterion.

Table 4b – Groundwater Investigation Levels

Analytes	Service Station Guidelines	ANZECC Fresh Water (µg/L)		NHMRC Drinking Water Guidelines 2004 (µg/L)
		95%	90%	
Benzene	300	700	900	1
Toluene	300 ⁺			800
Ethylbenzene	80	80	110	300
M+P-Xylene		75		600
Total Xylene	380			
TPH: C6 - C40	600 ¹	7		ID
T-1,2 dichloroethene		700	900	
C-1,2 dichloroethene		700	900	
Trichloroethene		330	400	
1,2 dichloroethane		1900	2600	
Chlorobenzene		55	100	
Arsenic (III)		24	94	
Arsenic (V)		13	42	7
Cadmium		0.2	0.4	2
Chromium (III)				
Chromium (VI)		1	6	50
Copper		1.4	1.8	2000
Lead	5	3.4	5.6	10
Mercury (inorganic)		0.6	1.9	1
Nickel		11	13	20
Zinc		8	15	ID
PAH's				
Napthalene		16	37	
Anthracene		0.4*		ID
Phenanthrene		2*		
Fluoranthene		1.4*		
B(a)P		0.2*		0.01
PCB (Total)		1-0.001		0.05
Phenolics		320		ID

¹ The NSW EPA Guidelines for Assessing Service Station sites and the ANZECC water quality Guidelines do not provide any reference for TPH levels in groundwater. In the absence of accepted criteria, the Dutch Intervention guidelines have been referenced as a guide only. The Dutch guidelines do not provide criteria for the C6-C9 hydrocarbon fractions, but provide values for mineral oil hydrocarbons (C10-C36 chain). The Dutch Intervention guideline for mineral oil is 600µg/litre. This guideline is health based rather than ecosystem based.

² The ANZECC threshold criteria of 7µg/L is a low reliability trigger level for protection of aquatic ecosystems and is derived from a study on the effects of petroleum hydrocarbons on tropical marine organisms. This level has not been adopted as it is below the most sensitive detection level of the laboratory.

ID=Insufficient Data; *Low reliability trigger values are provided where possible as an indicative guideline only in the absence of a high reliability 95% value.

3.2.3 Limitations of the Assessment Criteria

All criteria have limitations. Not all chemical analytes are covered by each set of guidelines, requiring some criteria to be sourced from elsewhere. This is particularly relevant to the Dutch guidelines, which provide a guideline for assessment for some analytes not covered by the Australian guidelines. Only criteria relevant to Australia have been used in the interpretation of analytical data on the Site.

Monocyclic Aromatic Hydrocarbons (BTEX)

A total of seventy five (75) soil samples were analysed for Monocyclic Aromatic Hydrocarbons (BTEX fractions), associated with petrol contamination, were not detected above the laboratory Limit of Reporting (LOR) in any of the samples collected.

Total Recoverable Hydrocarbons (TRH)

A total of seventy five (75) soil samples were analysed for Total Recoverable Hydrocarbon (TRH) compounds from the sampling locations on the site.

Hydrocarbons in the C₆ – C₁₀ Fraction (F1) were detected in six (6) of the samples analysed with concentrations ranging from 70 – 470mg/kg. Hydrocarbons in the C₁₀ – C₁₆ Fraction (F2) were detected in eleven (11) samples with concentrations ranging from 100 – 1900mg/kg. All concentrations in the F1 and F2 Hydrocarbon category were below the NEPM Table 1A(5) HSL criteria for F1 (2800mg/kg) and F2 (2400mg/kg) fractions at a depth greater than 1m in clay soils.

Hydrocarbons in the C₁₆ – C₃₄ Fraction were detected in three (3) of the samples analysed with concentrations of 160mg/kg in two (2) samples and 180mg/kg in one sample.

Hydrocarbons in the C₃₄ – C₄₀ Fraction were detected in nine (9) of the samples analysed with concentrations ranging from 61 – 1100mg/kg. One sample (BH24 – 1.3a) exceeded the NSW Service Station Guidelines value of 1000mg/kg for Total Recoverable Hydrocarbons.

Table 4a – TPH in Soil (mg/kg)

Sample ID	Total Petroleum Hydrocarbons				Total
	C ₆ -C ₁₀	>C ₁₀ -C ₁₆	>C ₁₆ -C ₃₄	>C ₃₄ -C ₄₀	
BH24-S	70	570	nd	170	810
BH24-SA	nd	220	nd	nd	220
BH24 - 0.6	nd	590	nd	110	700
BH24 - 1.3	240	1100	nd	560	1900
BH24 - 1.3A	470	1900	nd	1100	3470
BH24 - 2.0	180	770	nd	400	1350
BH25 - 1.4	nd	100	nd	nd	100
BH25 - 2.7	nd	160	nd	61	221
BH27 - 1.0	160	410	nd	300	870
BH51 - 0.5	160	510	180	340	340
BH51 - 1.4	nd	150	nd	99	99
BH56 - 2.5	nd	nd	160	nd	nd
HIL	2800	2400	-	-	1000

Pesticides

Six (6) samples including duplicates were submitted for pesticide and herbicide analysis (OP/OCP). No concentrations of OP/OC Pesticides were recorded above LOR and are therefore within the site assessment criteria. No evidence of impact from pesticides or herbicides was noted.

Polycyclic Aromatic Hydrocarbons (PAH)

A total of two hundred and thirteen (213) samples were analysed for Polycyclic Aromatic Hydrocarbons (PAH). Concentrations of PAH compounds were detected above the LOR in eighty one (81) of the samples collected, with one (1) sample (TP3 - 0.5m) exceeding the NEPM 2013 Table 1(A)1 column D criteria of 40mg/kg for BaP (TEQ) with a concentration of 53mg/kg. All remaining samples concentrations were within the Site Acceptance Criteria.

Polychlorinated Biphenyls (PCBs)

Six (6) samples including duplicates were analysed for Polychlorinated Biphenyls (PCB). There were no concentrations of PCB recorded above the LOR and hence none above the site assessment criteria.

Heavy Metals

A total of two hundred and thirteen (213) soil samples were submitted for analysis of all eight (8) heavy metals as recommended by the NSW EPA. All samples complied with the Site acceptance criteria of NEPM 1999 as revised 2013 Table 1(A)1 Column D – *Commercial/Industrial* and the *NSW Service Station Guidelines 1994*.

Refer to **Table 4b-** Metals in Soil

Table 4b- Metals in Soil

Parameter	Acid Extractable Metals							
	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn
Average (n=)	7.8	0.56	24.4	30.4	20.6	0.12	21.9	60
Standard Deviation	3.4	0.15	43	12.5	17.7	0.06	32.5	33.1
Min (mg/Kg)	4	0.4	4	3	4	0.1	2	6
Max (mg/Kg)	26	1	260	85	130	0.4	190	310
Number Exceeding	0	0	0	0	0	0	0	0
SAC (NEPM D) Service Station	3000	900	3600	4000	1500	730	6000	400000
Phytotoxicity EIL	20	3	400	100	600	1	60	200

4.2.2 Water Analysis

Six monitoring wells were established on the site to determine the condition of groundwater within the site. As a minimum each installed well reached at least a moisture layer in the soil profile if not a water bearing layer or a perched water table. At the time of sampling four water samples were collected from the monitoring wells.

The well installation information is located in the following table.

Table 4c – Well depths

Monitoring Well Description	Total Depth of Well *(mbgl)	Water Level *(mbgl) (18/9/2013)
MW#1	7.42	7.35 (dry)
MW#2	5.95	1.54
MW#3	11.79	1.43
MW#4	5.4	dry
MW#5	7.5	1.6
MW#6	8.67	4.81

The monitoring well analytical results are in the following series of tables.

BTEX

The four monitoring wells sampled were analysed for BTEX. There were two detections of C₆ to C₁₀ however these detection were below the site acceptance criteria. The two detections were in MW2 and MW3.

Total Recoverable Hydrocarbons and Naphthalene

The four monitoring wells sampled were analysed for Total Recoverable Hydrocarbons. MW3 had a detection of C₁₀-C₁₆ and Naphthalene, however was below the site acceptance

criteria. MW2 is located adjoining the factory and in the area of former chemical storage, naptha and possible oil storage underground storage tanks. MW2 exceeded the site criteria for Total Recoverable Hydrocarbons and Naphthalene.

Table 4d – Volatile Hydrocarbons

Sample ID	Volatile Hydrocarbons						
	vTRH C ₆ - C ₁₀ (µg/L)	vTRH C ₆ - C ₁₀ less BTEX (F1) (µg/L)	Benzene (µg/L)	Toluene (µg/L)	EthylBenzene (µg/L)	m + p Xylene (µg/L)	o-Xylene (µg/L)
MW2	50	50	nd	nd	nd	nd	nd
MW3	120	92	nd	nd	nd	nd	nd
MW5	nd	nd	nd	nd	nd	nd	nd
MW6	nd	nd	nd	nd	nd	nd	nd
Criteria			950	-	-	200	350

Table 4e – TRH and Naphthalene

Sample ID	Total Recoverable Hydrocarbons C6-C36 and Naphthalene								
	C6 - C10 (µg/L)	TRH C10 - C14 (µg/L)	TRH C15 - C28 (µg/L)	TRH C29 - C36 (µg/L)	TRH >C10-C16 (µg/L)	TRH >C10 - C16 Less Napth (µg/L)	TRH >C16-C34 (µg/L)	Total TRH (µg/L)	Naphthalene (µg/L)
MW2	50	1200	4000	990	2000	2000	3900	6240	38
MW3	120	72	nd	nd	74	71	nd	194	2
MW5	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW6	nd	nd	nd	nd	nd	nd	nd	Nd	nd
Criteria								600	16

Metals

In total there were sixteen (16) water samples collected for analysis, twelve (12) surface water samples collected (including one duplicate) from the eleven (11) dams located on the site and four (4) water samples from the monitoring wells. The samples were tested for a variety of analytes and the results are in the tables below. Included in the table below is the analysis of Metals in the Monitoring Wells.

A summary of the exceedance is as follows:

- The concentration of Cadmium in MW6 (0.3ug/L) marginally exceeded the site criteria 0.2ug/L.
- The concentration of Chromium in S-Dam-2 (3ug/L), S-Dam-3 (2ug/L), S-Dam-4(2ug/L), and S-Dam-5 (2ug/L), exceeded the site criteria of 1ug/L.

- The concentration of Copper in S-Dam-1 (3ug/L), S-Dam-2 (26ug/L), S-Dam-3 (22ug/L), S-Dam-4(29ug/L), S-Dam-5 (32ug/L) S-Dam-6 (2ug/L) and S-Dam-8 (2ug/L), exceeded the site criteria of 1.4 ug/L.
- The concentration of Lead in S-Dam-4 and S-Dam-5 exceeded the site criteria of 3.4ug/L.
- The concentration of Mercury in S-Dam-2 exceeds with site criteria of 0.06ug/L.
- The concentration of Nickle in MW2 (14ug/L) exceeded the site criteria of 11ug/L.
- The concentration of Zinc in MW2 (42ug/L), MW3 (39ug/L), MW6 (57ug/L), S-Dam-1 (17ug/L), S-Dam-4 (11ug/L) and S-Dam-5 (9ug/L) exceeded the site criteria of 11ug/L.

Table 4f – Heavy Metals in Water

Sample ID	Metal Analytes							
	As (µg/L)	Cd (µg/L)	Cr (µg/L)	Cu (µg/L)	Pb (µg/L)	Hg (µg/L)	Ni (µg/L)	Zn (µg/L)
MW2	3	<0.1	<1	1	<1	<0.05	14	42
MW3	<1	<0.1	<1	<1	<1	<0.05	8	39
MW5	<1	<0.1	1	1	<1	<0.05	3	6
MW6	4	0.3	<1	<1	<1	<0.05	7	57
S - Dam - 1	<1	<0.1	1	3	<1	<0.05	3	17
S - Dam - 2	1	<0.1	3	26	3	0.07	9	8
S - Dam - 3	2	<0.1	2	22	2	0.06	5	6
S - Dam - 4	2	<0.1	2	29	7	0.05	10	11
S - Dam - 5	<1	<0.1	2	32	5	0.06	10	9
S - Dam - 6	<1	<0.1	<1	2	<1	<0.05	<1	2
S - Dam - 7	<1	<0.1	<1	<1	<1	<0.05	<1	<1
S - Dam - 7a	<1	<0.1	<1	<1	<1	<0.05	<1	<1
S - Dam - 8	<1	<0.1	<1	2	<1	<0.05	<1	1
S - Dam - 9	<1	<0.1	<1	<1	<1	<0.05	<1	<1
S - Dam - 10	<1	<0.1	<1	11	<1	<0.05	<1	<1
S – Dam -11	<1	<0.1	<1	11	<1	<0.05	<1	<1
Criteria	13	0.2	1	1.4	3.4	0.06	11	8

pH and Electrical Conductivity

The electrical conductivity in monitoring wells MW3 and MW6 were high compared to the remainder of the site. There is no site criteria for Electrical Conductivity.

The pH of S-Dam-7 (pH 8.7), S-Dam-8 (pH 8.7) and S-Dam-9 (pH 8.8) are elevated above the site criteria pH range of 6.5 to 8.5 from the Australian Drinking Water Guidelines.

Table 4g – pH and EC

Sample ID	pH	EC
MW2	7.1	2,500
MW3	7.1	20,000
MW5	8	1,500
MW6	7.2	19,000
S - Dam - 1	8.4	1,200
S - Dam - 2	7.8	970
S - Dam - 3	8	1,100
S - Dam - 4	7.6	990
S - Dam - 5	7.7	1,000
S - Dam - 6	8.1	830
S - Dam - 7	8.7	1,200
S - Dam - 7a	8.1	1,200
S - Dam - 8	8.7	1,200
S - Dam - 9	8.8	1,700
S - Dam - 10	8.2	830
S - Dam - 11	7.9	830
Criteria	6.5-8.5 ADWG	N/A

Polycyclic Aromatic Hydrocarbons (PAHs)

There were only a few detections above the limit of reporting (LOR) of Naphthalene, Acenaphthene, Phenanthrene, Anthracene within the water sampling. MW2 had exceedances of Naphthalene, Phenanthrene and Anthracene.

Table 4h – PAH in Water

Sample ID	Polycyclic Aromatic Hydrocarbons							
	Naphthalene	Acenaphthene	Phenanthrene	Anthracene	Fluoranthene	B(a)P	B(a)P TEQ	PAH Total
MW2	38	10	15	1	nd	nd	nd	79
MW3	2	Nd	Nd	Nd	Nd	Nd	Nd	1.6
MW5	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
MW6	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 1	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 2	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 3	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 4	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 5	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 6	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 7	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 7a	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 8	Nd	Nd	Nd	Nd	Nd	Nd	Nd	Nd
S - Dam - 9	nd	nd	nd	nd	nd	nd	nd	nd
S - Dam - 10	Nd	Nd	Nd	Nd	Nd	Nd	nd	Nd
S - Dam - 11	Nd	Nd	Nd	Nd	Nd	Nd	Nd	nd
Criteria	16	-	2	0.4*	1.4*	0.2	-	-

4.3 QA/QC Comments

The results of the field and laboratory quality assurance and quality control procedures complied with all stated DQOs. While a degree of homogeneity is expected, the very nature of the material and the contaminant concentrations would create expectancy for some heterogeneity.

A review of the QA/QC controls incorporated into the process and given the generally low concentrations of contaminants present in the soil on site generally, relative to threshold concentrations, the required degree of confidence in the results can be obtained. It is considered that the analytical data generated is of an acceptable degree of accuracy and precision for the purpose of assessing the soil quality on the site.

Appendix F:
Stage 3 Limited Detailed Site Investigation Figures
(ERM, September 2019)



Legend

- Stage 3 Site Boundary
- Development Boundary
- Inaccessible/Limited Access - Active Work Area
- Inaccessible/Limited Access - Brick Making Material Stockpiles
- Inaccessible/Limited Access - Dam and Dam Edges
- Conservation Area
- ITP Area

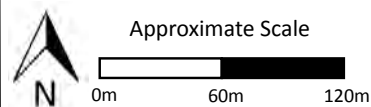
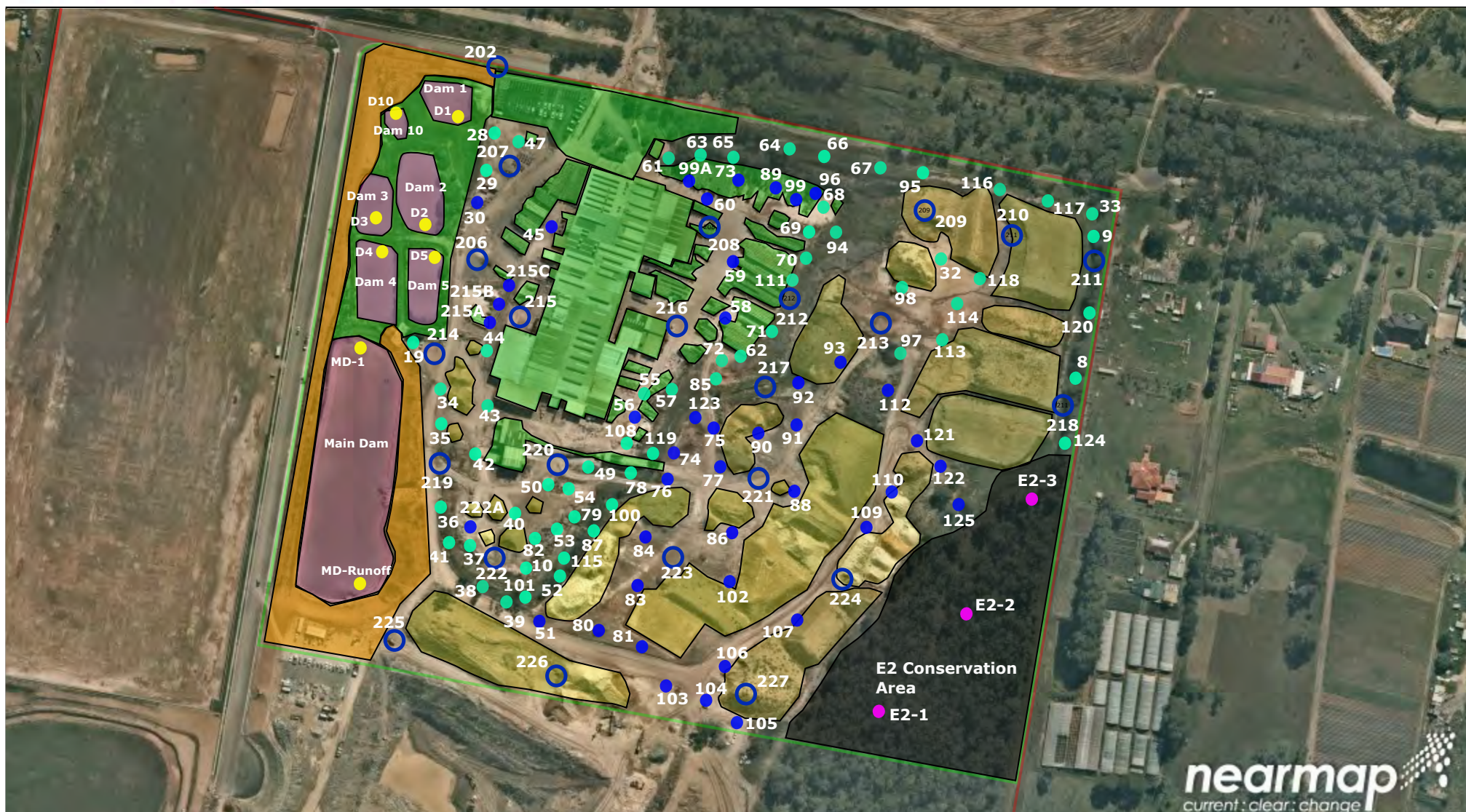


Figure Title Site Layout with Accessible Site Area			
Project Title Horsley Park Stage 3		Client CSR	
Project No. 0449086	Date 21/06/2019	Scale As Shown	Figure No. 2
		Revision Version 1.0	



Legend

 Site Boundary	● E2 area sample location	 Estimated Stockpile Areas (inaccessible)	 DP BH location
 Stage 3 Boundary	● Sediment sample location	 Dams (inaccessible)	 Outside soil investigation area
● Testpit Location		 Inaccessible areas - building, bricks etc.	 Data Gap Areas (not assessed due to inaccessibility/instability)
● Borehole Location		 Already assessed providing ITP coverage	



Approximate Scale



Figure Title

Site Layout with Sample Locations

Project Title

Horsley Park Stage 3

Client

CSR

Project No.

0449086

Date

7/08/2019

Scale

As Shown

Figure No.

3

Revision

Version 1

nearmap
current : clear : change



Legend

 Site Boundary	 Estimated Stockpile Areas (inaccessible)	 Outside soil investigation area
 Stage 3 Boundary	 Dams (inaccessible)	 Data Gap Areas (not assessed due to inaccessibility/instability)
● Groundwater Well Location	 Already assessed providing ITP coverage	
● Groundwater Well Location (Dry)	● Surface water sample location	

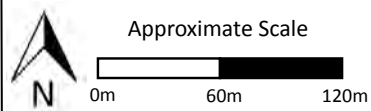


Figure Title

Site Layout with Grounwater and Surface Water Locations

Project Title

Horsley Park Stage 3

Client

CSR

Project No.

0449086

Date

20/08/2019

Scale

As Shown

Figure No.

4

Revision

Version 1



Legend

- Groundwater Well Location
- Groundwater Well Location (Dry)
- Stage 3 Boundary
- Site Boundary
- Cadastral
- Inferred Groundwater Contours
- (0.123) Inferred Groundwater Elevation
- Groundwater Flow Direction

Source:
nearmaps Imagery July 2019
NSW DLPI_DCDB Data July 2019

Groundwater Contour Lines

Drawing No:	0449086m_DSI_G001_R0.mxd	Horsley Park DSI
Date:	29/08/2019	Drawing Size: A3
Drawn By:	CB	Reviewed By: AR
Client:	Client Name	
Coordinate System:	N	
0 50 100m		
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.		

5



Legend

- Site Boundary
- Stage 3 Boundary
- No Asbestos Detected
- Asbestos Detected - Compliant
- Asbestos Detected - Non Compliant
- Estimated Stockpile Areas (inaccessible)
- Dams (inaccessible)
- Inaccessible areas - building, bricks etc.
- Already assessed providing ITP coverage
- Data Gap Areas
(not assessed due to
inaccessibility/instability)



Approximate Scale



Figure Title

Site Layout with Asbestos Detections

Project Title

Horsley Park Stage 3

Client

CSR

Project No.

0449086

Date

7/08/2019

Scale

As Shown

Figure No.

6

Revision

Version 1



Legend

- Site Boundary
- Stage 3 Boundary
- TRH Management Limit Exceedance
- Asbestos detection (Compliant)
- Asbestos detection (Non-Compliant)
- ▲ Notable foreign materials
- Areas that require delineation
- Data Gap Stockpile Areas (inaccessible)
- Data Gap Areas (not assessed due to inaccessibility/instability)
- Outside soil investigation area



Approximate Scale



Figure Title

Site Layout with Delineation and Data Gap Areas

Project Title

Horsley Park Stage 3

Client

CSR

Project No.

0449086

Date

23/08/2019

Scale

As Shown

Figure No.

7

Revision

Version 4

Appendix G:
Stage 3 Limited Detailed Site Investigation Tables
(ERM, September 2019)



					TRH										BTEX					Halogenated Benzenes		Metals																																
					G6-C10		G6-C10 (F1 minus BTEX)		C10-C16		C10-C16 (F2 minus Naphthalene)		G16-C34		C34-C40		C10-C40 (Sum of Total)		Benzene		Toluene		Ethylbenzene		Xylene (m & p)		Xylene (o)		Xylene Total		Total BTEX		Hexachlorobenzene		Arsenic		Cadmium		Chromium (III+VI)		Copper		Lead		Mercury		Nickel		Zinc		2,4-DDT		4,4'-DDE	
					mg/kg 10	mg/kg 10	mg/kg 25	mg/kg 25	mg/kg 90	mg/kg 100	mg/kg 50	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.2	mg/kg 0.1	mg/kg 0.3	mg/kg 0.2	mg/kg 0.05	mg/kg 1	mg/kg 0.3	mg/kg 0.3	mg/kg 0.5	mg/kg 1	mg/kg 0.05	mg/kg 0.5	mg/kg 2	mg/kg mg/kg	mg/kg 0.05	mg/kg 0.05	mg/kg 0.5	mg/kg 0.5	mg/kg 1	mg/kg 0.3	mg/kg 0.3	mg/kg 0.5	mg/kg 1	mg/kg 0.05	mg/kg 0.5	mg/kg 2	mg/kg mg/kg	mg/kg 0.05	mg/kg 0.05	mg/kg 0.05	mg/kg 0.05									
EQL																																																						
NEPM (1999) EIL - Commercial/Industrial																																																						
NEPM (1999) ESL - Commercial/Industrial (fine)					215		170		2500	6600		95	135	185			95			160		680	290	1800		300	690																											
NEPM (1999) HIL D - Commercial/Industrial																																																						
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m					310		NL		NL	NL		4	NL	NL			NL			80	3000	900		240000	1500	730	6000	400000																										
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m					480		NL		NL	NL		6	NL	NL			NL																																					
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m					NL		NL		NL	NL		9	NL	NL			NL																																					
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+					NL		NL		NL	NL		NL	NL	NL			NL																																					
NEPM (1999) Management Limits - Commercial/Industrial (fine)					800		1000		5000	10000																																												
NEPM (1999) Management Limits - Urban residential & open space (fine)					800		1000		3500	10000																																												
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number	<10	<10	<50	<50	170	<100	170	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	6	<1	5	40	16	<0.1	18	78	-	<0.05																										
TP10 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	10	<1	16	39	16	<0.1	20	80	-	<0.05																									
TP100 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	9	27	15	<0.1	12	61	-	<0.05																									
TP101 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	9	27	15	<0.1	12	61	-	<0.05																									
TP115 0	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	8	31	14	<0.1	13	57	-	<0.05																									
TP115 0.8	0.8	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	15	32	59	<0.1	35	116	-	<0.05																									
TP35 0.7	0.7	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	370	200	570	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	9	<1	15	55	18	<0.1	18	92	-	<0.05																									
TP35 1.5	1.5	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	<5	<1	9	16	8	<0.1	13	64	-	<0.05																									
TP36 0.5	0.5	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	7	<1	7	27	11	<0.1	11	61	-	<0.05																									
TP37 0.2	0.2	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	5	<1	5	39	10	<0.1	6	23	-	<0.05																									
TP37 1.0	1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	<5	<1	5	14	7	<0.1	5	25	-	<0.05																									
TP38 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	10	23	12	<0.1	11	48	-	<0.05																									
TP39 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	8	<1	11	22	20	<0.1	12	67	-	<0.05																									
TP40 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	8	<1	11	33	16	<0.1	15	63	-	<0.05																									
TP40 2.0	2	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	<5	<1	9	33	12	<0.1	11	60	-	<0.05																									
TP41 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	13	<1	8	27	13	<0.1	11	49	-	<0.05																									
TP42 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	8	<1	7	33	14	<0.1	16	61	-	<0.05																									
TP42 1.0	1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	12	<1	32	32	25	<0.1	12	69	-	<0.05																									
TP43 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	7	<1	13	36	15	<0.1	18	67	-	<0.05																									
TP43 0.7	0.7	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	13	32	12	<0.1	20	86	-	<0.05																									
TP50 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	8	<1	10	30	14	<0.1	15	70	-	<0.05																									
TP52 0.1	0.1	28/06/2019	Normal	ES1920552	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	5	<1	9	28	14	<0.1	12	51	-	<0.05																									



					TRH										BTEX					Halogenated Benzenes					Metals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
					G6-C10		G6-C10 (F1 minus BTEX)		C10-C16		C10-C16 (F2 minus Naphthalene)		C16-C34		C34-C40		C10-C40 (Sum of total)		Benzene		Toluene		Ethylbenzene		Xylene (m & p)		Xylene (o)		Xylene Total		Total BTEX		Hexachlorobenzene		Arsenic		Cadmium		Chromium (III+VI)		Copper		Lead		Mercury		Nickel		Zinc		2,4-DDT		4,4-DDE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					mg/kg 10	mg/kg 10	mg/kg 25	mg/kg 25	mg/kg 90	mg/kg 100	mg/kg 50	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.2	mg/kg 0.1	mg/kg 0.3	mg/kg 0.2	mg/kg 0.05	mg/kg 1	mg/kg 0.3	mg/kg 0.3	mg/kg 0.5	mg/kg 1	mg/kg 0.05	mg/kg 0.5	mg/kg 2	mg/kg mg/kg	mg/kg 0.05	mg/kg 0.05	mg/kg 0.5	mg/kg 1	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 0.5	mg/kg 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					TRH										BTEX					Halogenated Benzenes		Metals																																	
					G6-C10		G6-C10 (F1 minus BTEX)		C10-C16		C10-C16 (F2 minus Naphthalene)		G16-C34		G34-C40		C10-C40 (Sum of Total)		Benzene		Toluene		Ethylbenzene		Xylene (m & p)		Xylene (o)		Xylene Total		Total BTEX		Hexachlorobenzene		Arsenic		Cadmium		Chromium (III+VI)		Copper		Lead		Mercury		Nickel		Zinc		2,4-DDT		4,4'-DDE		
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
					10	10	25	25	90	100	50	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.05	1	0.3	0.3	0.5	1	0.05	0.5	2	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EQI																																																							
NEPM (1999) EIL - Commercial/Industrial																																																							
NEPM (1999) ESL - Commercial/Industrial (fine)					215		170		2500	6600		95	135	185			95			160		680	290	1800		300	690																												
NEPM (1999) HIL D - Commercial/Industrial																																																							
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m					310		NL		NL	NL		4	NL	NL			NL		80	3000	900		240000	1500	730	6000	400000																												
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m					480		NL		NL	NL		6	NL	NL			NL																																						
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m					NL		NL		NL	NL		9	NL	NL			NL																																						
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+					NL		NL		NL	NL		NL	NL	NL			NL																																						
NEPM (1999) Management Limits - Commercial/Industrial (fine)					800		1000		5000	10000																																													
NEPM (1999) Management Limits - Urban residential & open space (fine)					800		1000		3500	10000																																													
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	6	<1	35	<5	9	<0.1	<2	<5	-	<0.05																											
TP98 1.2	1.2-1.2	2/07/2019	Normal	ES1921013	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	6	<1	35	<5	9	<0.1	<2	<5	-	<0.05																											
TP116 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	8	<1	8	31	12	<0.1	12	95	-	<0.05																											
TP116 1.0	1-1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<5	<1	8	32	13	<0.1	11	48	-	<0.05																											
TP116 1.5	1.5-1.5	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	7	<1	6	12	17	<0.1	<2	14	-	<0.05																											
TP116 3.0	3-3	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	11	<1	22	25	19	<0.1	13	46	-	<0.05																											
TP116 4.0	4-4	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	14	<1	9	17	6	<0.1	4	34	-	<0.05																											
TP117 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	10	<1	11	32	15	<0.1	15	78	-	<0.05																											
TP117 1.0	1-1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	17	<1	19	38	21	<0.1	16	73	-	<0.05																											
TP117 2.0	2-2	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	11	<1	10	47	20	<0.1	32	128	-	<0.05																											
TP117 5.0	5-5	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	6	<1	7	20	18	<0.1	4	16	-	<0.05																											
TP33 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	16	<1	11	30	21	<0.1	12	75	-	<0.05																											
TP33 1.0	1-1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	7	<1	17	25	27	<0.1	19	70	-	<0.05																											
TP33 2.0	2-2	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	14	<1	16	22	78	<0.1	16	86	-	<0.05																											
TP33 3.0	3-3	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	5	<1	18	134	71	<0.1	13	83	-	<0.05																											
TP33 4.0	4-4	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	5	<1	15	152	75	<0.1	22	145	-	<0.05																											
TP64 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	9	<1	19	34	18	<0.1	13	55	-	<0.05																											
TP66 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	8	<1	17	24	18	<0.1	13	45	-	<0.05																											
TP67 0.1	0.1-0.1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	5	<1	8	30	14	<0.1	13	62	-	<0.05																											
TP67 1.0	1-1	3/07/2019	Normal	ES1921141	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	10	<1																																			



					TRH										BTEX					Halogenated Benzenes					Metals							



					TRH										BTEx					Halogenated Benzenes					Metals									
					C10-C16 (F2 minus Naphthalene)																													



					TRH										BTEX					Halogenated Benzenes					Metals									
					ERM																													
					CG-C10	CG-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Heachlorobenzene	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	2,4-DDT	4,4'-DDE					
EQL					mg/kg 10	mg/kg 10	mg/kg 25	mg/kg 25	mg/kg 90	mg/kg 100	mg/kg 50	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.2	mg/kg 0.1	mg/kg 0.3	mg/kg 0.2	mg/kg 0.05	mg/kg 1	mg/kg 0.3	mg/kg 0.3	mg/kg 0.5	mg/kg 1	mg/kg 0.05	mg/kg 0.5	mg/kg 2	mg/kg	mg/kg 0.05					
NEPM (1999) EIL - Commercial/Industrial																				160		680	290	1800		300	690							
NEPM (1999) ESL - Commercial/Industrial (fine)					215		170		2500	6600		95	135	185			95																	
NEPM (1999) HIL D - Commercial/Industrial																			80	3000	900		240000	1500	730	6000	400000							
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m					310		NL		NL	NL		4	NL	NL			NL																	
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m					480		NL		NL	NL		6	NL	NL			NL																	
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m					NL		NL		NL	NL		9	NL	NL			NL																	
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+					NL		NL		NL	NL		NL	NL	NL			NL																	
NEPM (1999) Management Limits - Commercial/Industrial (fine)					800		1000		5000	10000																								
NEPM (1999) Management Limits - Urban residential & open space (fine)					800		1000		3500	10000																								
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	7	<1	11	34	15	<0.1	16	68	-	<0.05					
QC129	0.2	2/08/2019	Field D	ES1924667	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	14	49	21	<0.1	13	55	-	<0.05					
QC132	0.5	5/08/2019	Field D	ES1925016	<10	<10	<50	<50	270	<100	270	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	<5	<1	14	34	29	<0.1	18	202	-	<0.05					
QC133	0.2	5/08/2019	Field D	ES1925016	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	6	<1	3	8	<5	<0.1	5	10	-	<0.05					
QC135	1.2	12/08/2019	Field D	ES1925846	<10	<10	<50	<50	<100	<100	<50	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	7	<1	14	33	19	<0.1	14	62	-	<0.05					
Inter-Lab Duplicates																																		
QC201	0.1	28/06/2019	Interlab D	SE194902	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	7	0.4	9.4	30	16	<0.05	15	96	<0.1	<0.1					
QC205	0.2	1/07/2019	Interlab D	SE194902	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	2	<0.3	4.4	14	24	<0.05	3.6	62	<0.1	<0.1					
QC209	0.6-0.6	2/07/2019	Interlab D	SE195008	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	-	-	<0.1	4	<0.3	8.3	18	8	<0.05	2.6	17	<0.1	<0.1					
QC211	0.1-0.1	2/07/2019	Interlab D	SE195008	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	-	-	<0.1	6	<0.3	16	24	24	<0.05	14	53	<0.1	<0.1					
QC212	1-1	3/07/2019	Interlab D	SE195009	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	9	<0.3	14	32	58	0.06	11	130	<0.1	<0.1					
QC216	0.6	17/07/2019	Interlab D	SE195899	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	3	<0.3	9.1	3.3	11	<0.05	5.2	25	<0.1	<0.1					
QC218	1.8	18/07/2019	Interlab D	SE195899	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	8	<0.3	9.6	29	12	<0.05	10	54	<0.1	<0.1					
QC215	1	19/07/2019	Interlab D	SE195899	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	2	<0.3	13	46	10	<0.05	13	70	<0.1	<0.1					
QC217	0.5	23/07/2019	Interlab D	SE195899	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	4	<0.3	11	33	14	<0.05	18	71	<0.1	<0.1					
QC219	1	26/07/2019	Interlab D	SE195899	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	7	<0.3	9	41	14	<0.05	17	72	<0.1	<0.1					
QC220	0.8	31/07/2019	Interlab D	ES1924328	<10	<10	<50	<50	230	170	400	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.05	11	<1	29	30	16	<0.1	20	68	-	<0.05					
QC221	0.2	2/08/2019	Interlab D	SE196288	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	7	<0.3	9.1	31	14	<0.05	13	57	<0.1	<0.1					
QC222	0.2	5/08/2019	Interlab D	SE196288	<25	<25	<25	<25	<90	<120	<210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	6	<0.3	2.4	7.3	3	<0.05	3.6	11	<0.1	<0.1					
QC224	1.2	12/08/2019	Interlab D	SE196457	<25	<25	<25	<25	250	<120	250	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<0.6	<0.1	5	<0.3	9.7	28	16	<0.05	11	54	<0.1	<0.1					
Statistical Summary																																		
Minimum Concentration					10	10	80	80	110	120	110	<0.1	<0.1	<0.1	2.6	0.9	3.5	3.5	<0.05		2	0.4	2.4	3.3	3	0.06	2	8	<0.1	<0.05				
Maximum Concentration					13	13	2010	2010	2310	210	4320	<0.2	<0.5	<0.5	2.6	0.9	3.5	3.5	<0.25		51	1	125	152	711	0.1	132	552	<0.1	<0.25				
Average Concentration					5.4	5.4	34	34	74	54	70	0.098	0.24	0.24	0.25	0.24	0.26	0.12		0.027	8	0.49	16	33	27	0.05	18	73	0.05	0.027				
Standard Deviation					1.8	1.8	125	125	154	21	285	0.011	0.042	0.042	0.14	0.058	0.2	0.21		0.0079	6.8	0.078	13	17	59	0.0095	16	58	0	0.0079				

[illegible]

[illegible]

[illegible]

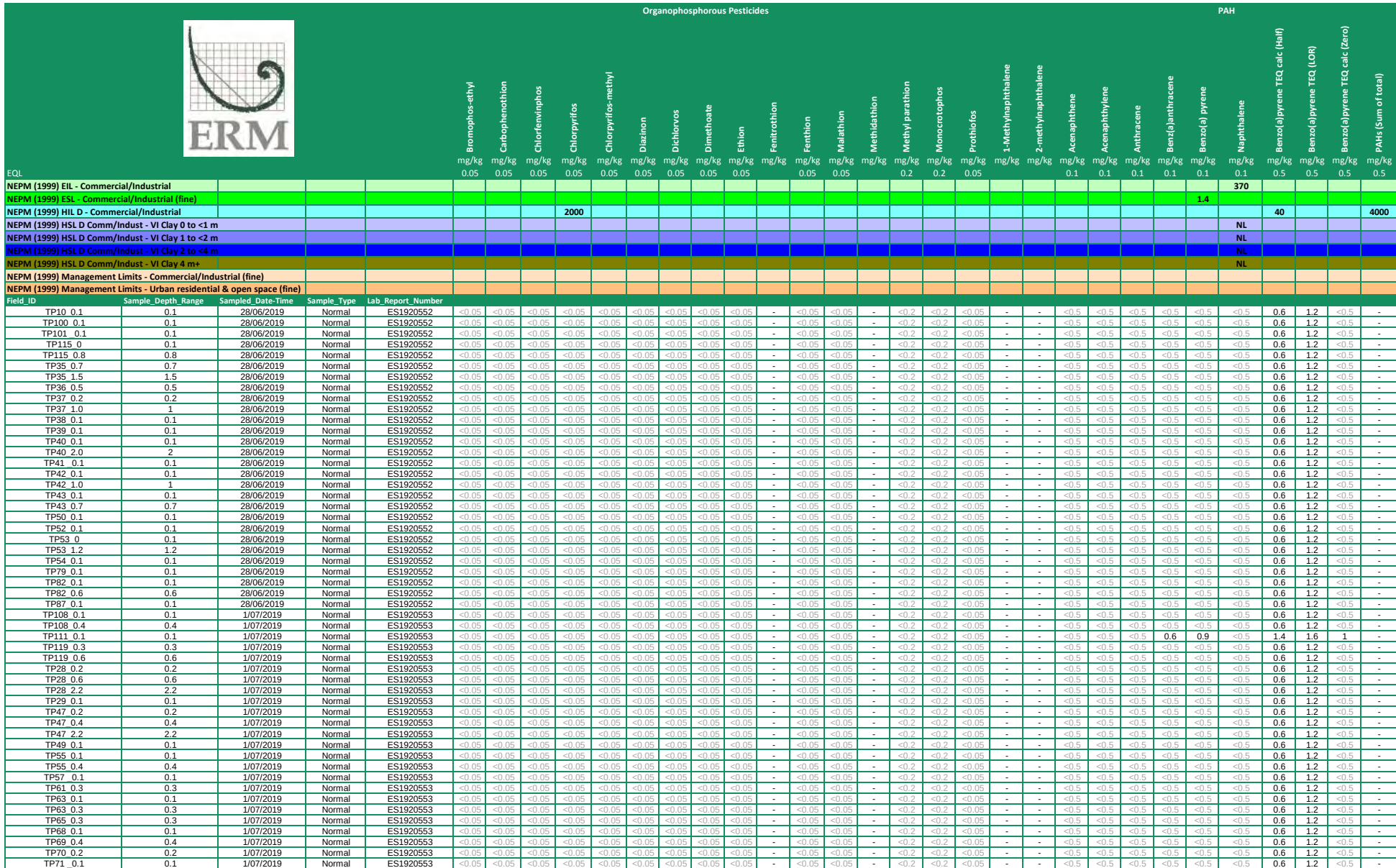
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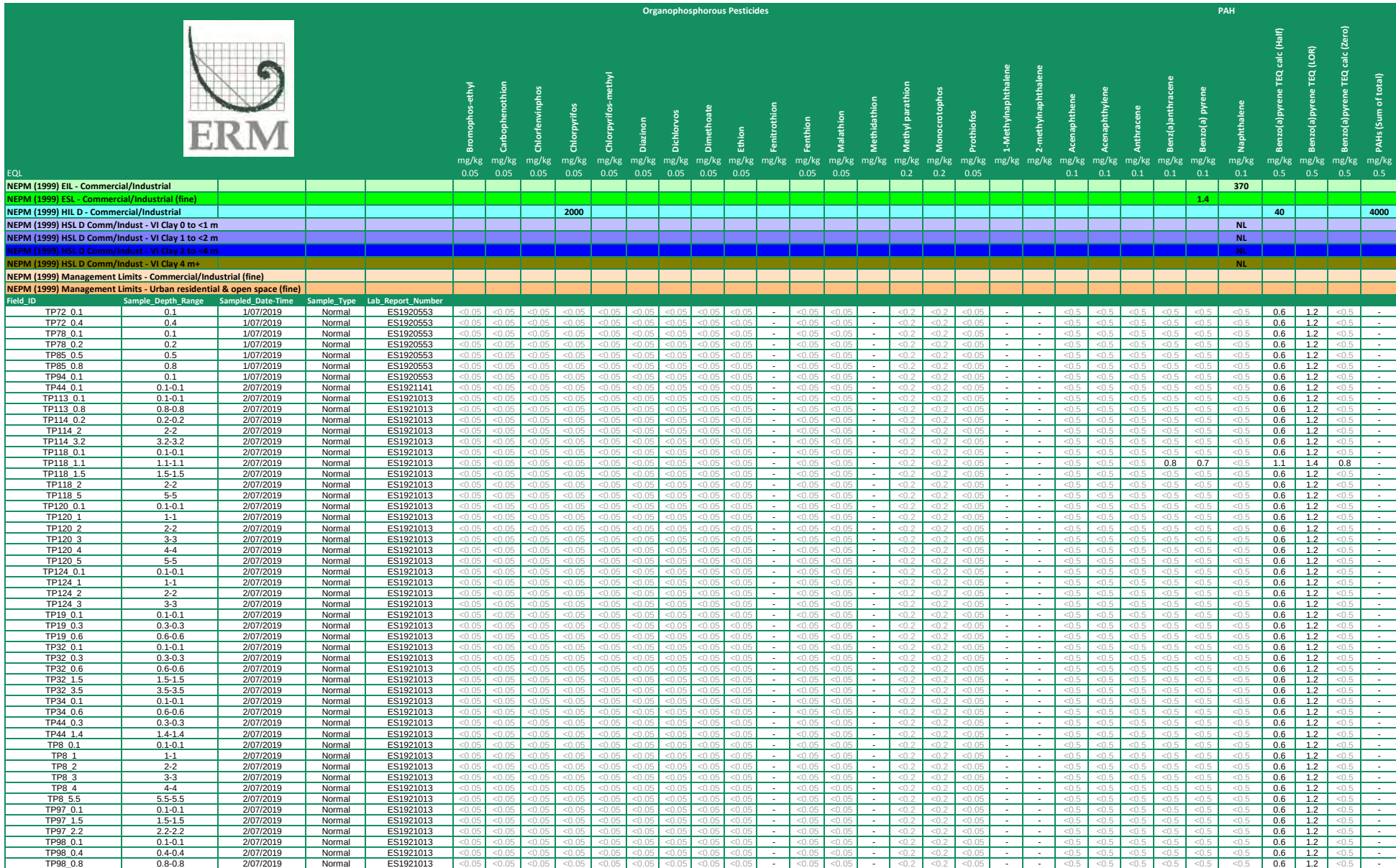
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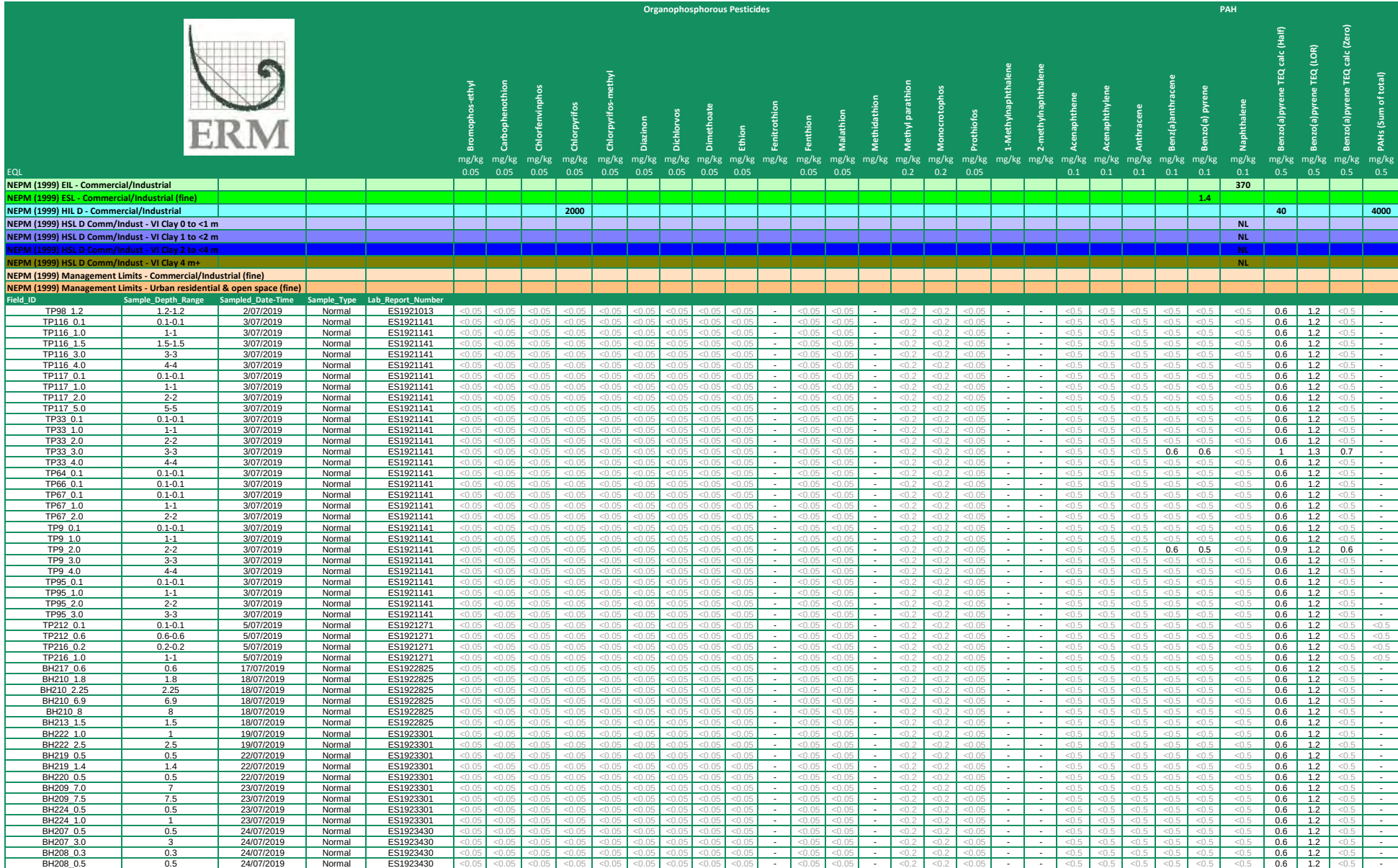


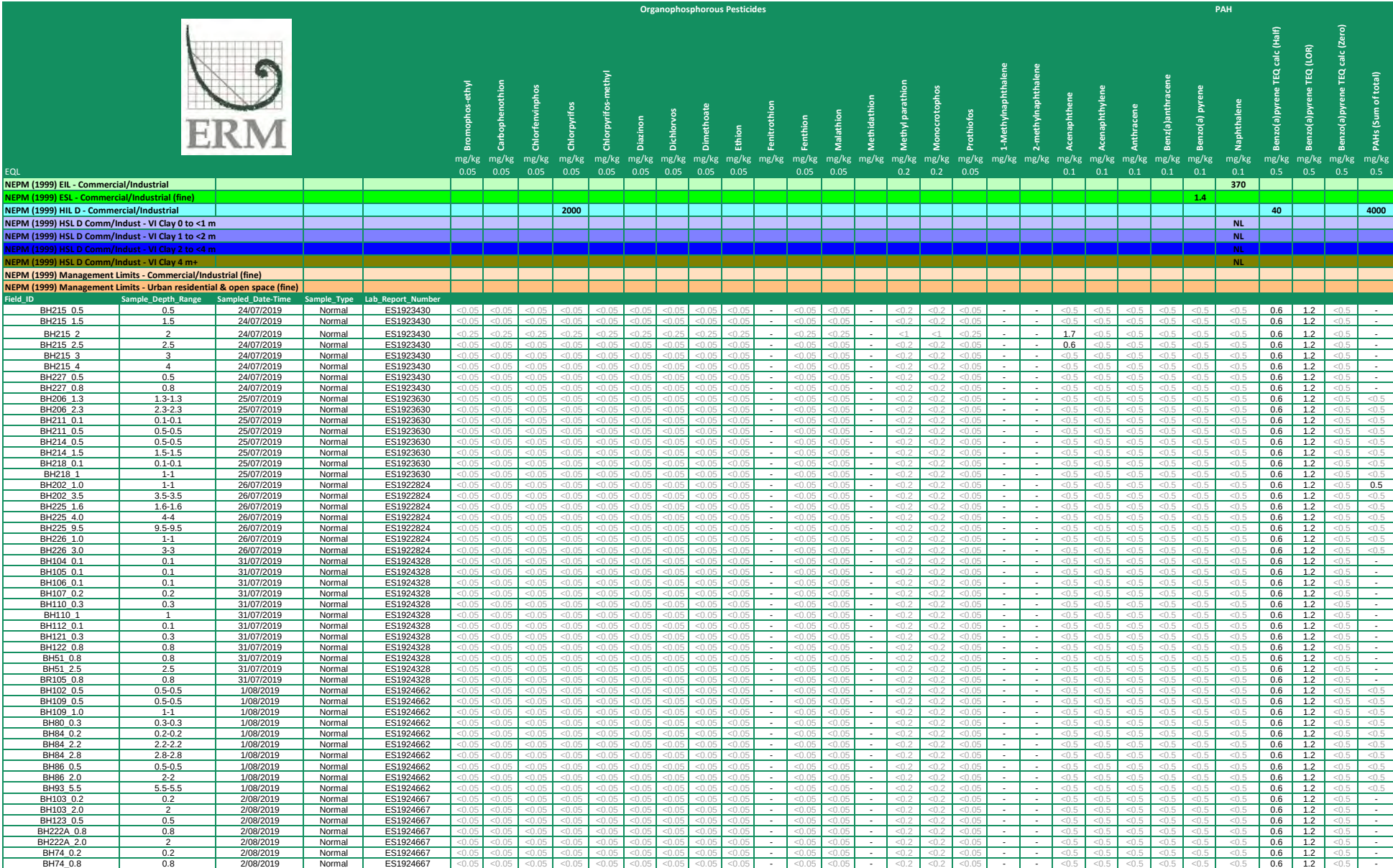
Organochlorine Pesticides

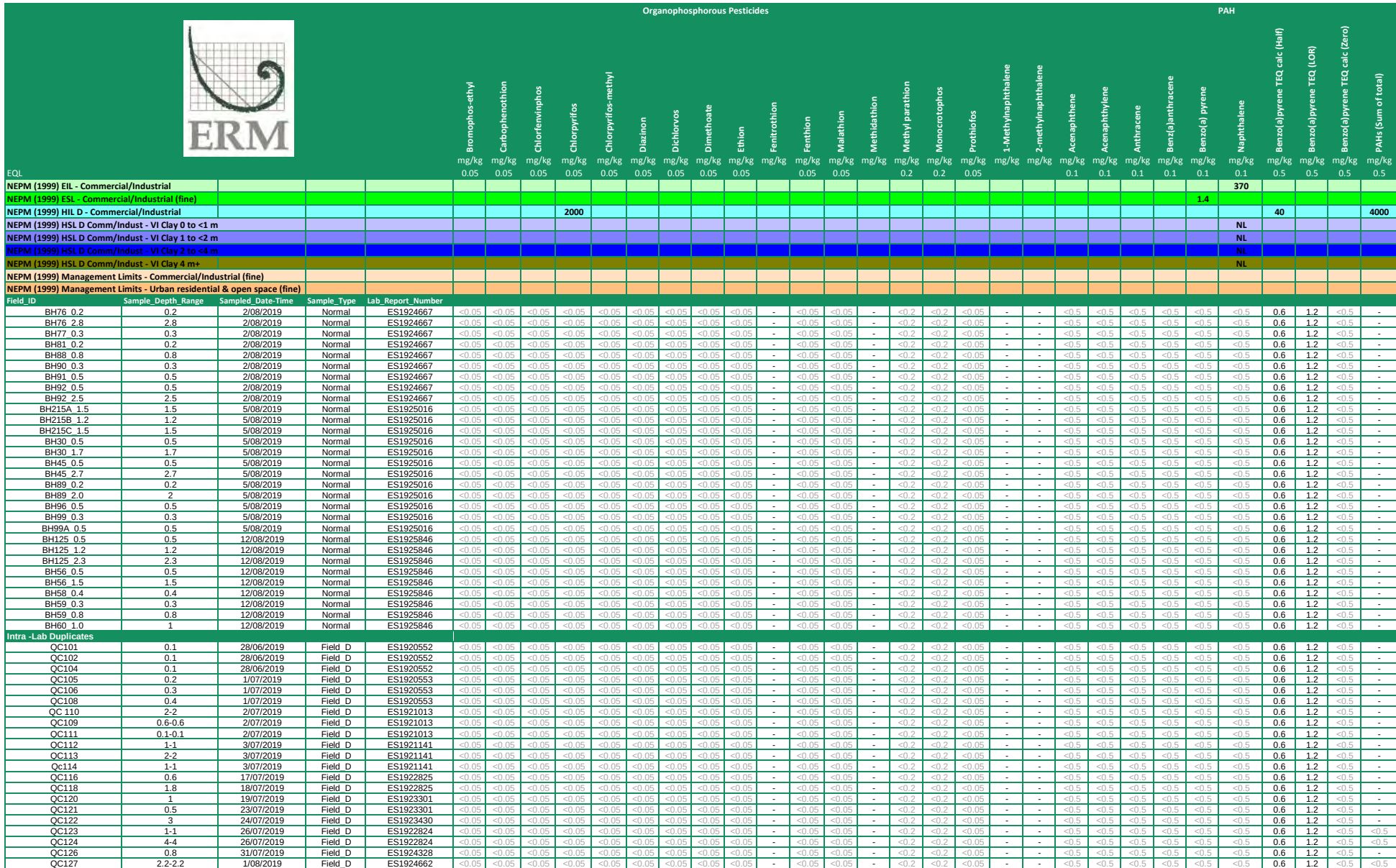
EQL					0.05	0.05	0.05	0.05	0.05	0.05				0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1			0.05	
NEPM (1999) EIL - Commercial/Industrial																	180																	
NEPM (1999) ESL - Commercial/Industrial (fine)																																		
NEPM (1999) HIL D - Commercial/Industrial								45		530								3600			2000					100			50		2500			
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																																		
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																																		
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																																		
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																																		
NEPM (1999) Management Limits - Commercial/Industrial (fine)																																		
NEPM (1999) Management Limits - Urban residential & open space (fine)																																		
Field_ID	Sample_Depth_Range	Sampled_Date-Time	Sample_Type	Lab_Report_Number																														
QC129	0.2	2/08/2019	Field D	ES1924667	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05	
QC130	2	2/08/2019	Field D	ES1924667	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05	
QC132	0.5	5/08/2019	Field D	ES1925016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05	
QC133	0.2	5/08/2019	Field D	ES1925016	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05	
QC135	1.2	12/08/2019	Field D	ES1925846	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05	
Inter-Lab Duplicates																																		
QC201	0.1	28/06/2019	Interlab D	SE194902	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC205	0.2	1/07/2019	Interlab D	SE194902	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC209	0.6-0.6	2/07/2019	Interlab D	SE195008	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC211	0.1-0.1	2/07/2019	Interlab D	SE195008	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC212	1-1	3/07/2019	Interlab D	SE195009	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC216	0.6	17/07/2019	Interlab D	SE195899	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC218	1.8	18/07/2019	Interlab D	SE195899	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC215	1	19/07/2019	Interlab D	SE195899	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC217	0.5	23/07/2019	Interlab D	SE195899	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC219	1	26/07/2019	Interlab D	SE195899	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC220	0.8	31/07/2019	Interlab D	ES1924328	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	-	-	-	<0.05		
QC221	0.2	2/08/2019	Interlab D	SE196288	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC222	0.2	5/08/2019	Interlab D	SE196288	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
QC224	1.2	12/08/2019	Interlab D	SE196457	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	<0.2	-	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	
Statistical Summary																																		
Minimum Concentration					<0.05	<0.05	0.05	<0.05	0.05	0.05	<0.1	0.05	<0.05	<0.05	<0.1	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.1	<0.1	<0.1	<0.1	<0.05	
Maximum Concentration					<0.25	<0.25	0.31	<0.25	0.49	0.11	<0.1	0.44	<0.25	<0.25	<1	<0.08	0.31	<0.15	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	0.07	<1	<0.1	<0.1	<0.1	<0.25	
Average Concentration					0.027	0.027	0.027	0.027	0.031	0.027	0.05	0.03	0.027	0.027	0.099	0.025	0.031	0.025	0.029	0.029	0.027	0.029	0.027	0.027	0.027	0.027	0.027	0.099	0.05	0.05	0.05	0.029		
Standard Deviation					0.0079	0.0079	0.019	0.0079	0.045	0.0095	0	0.04	0.0079	0.0079	0.026	0.00092	0.025	0.0031	0.017	0.017	0.0079	0.017	0.0079	0.017	0.0079	0.0079	0.0079	0.0084	0.026	0	0	0	0.017	











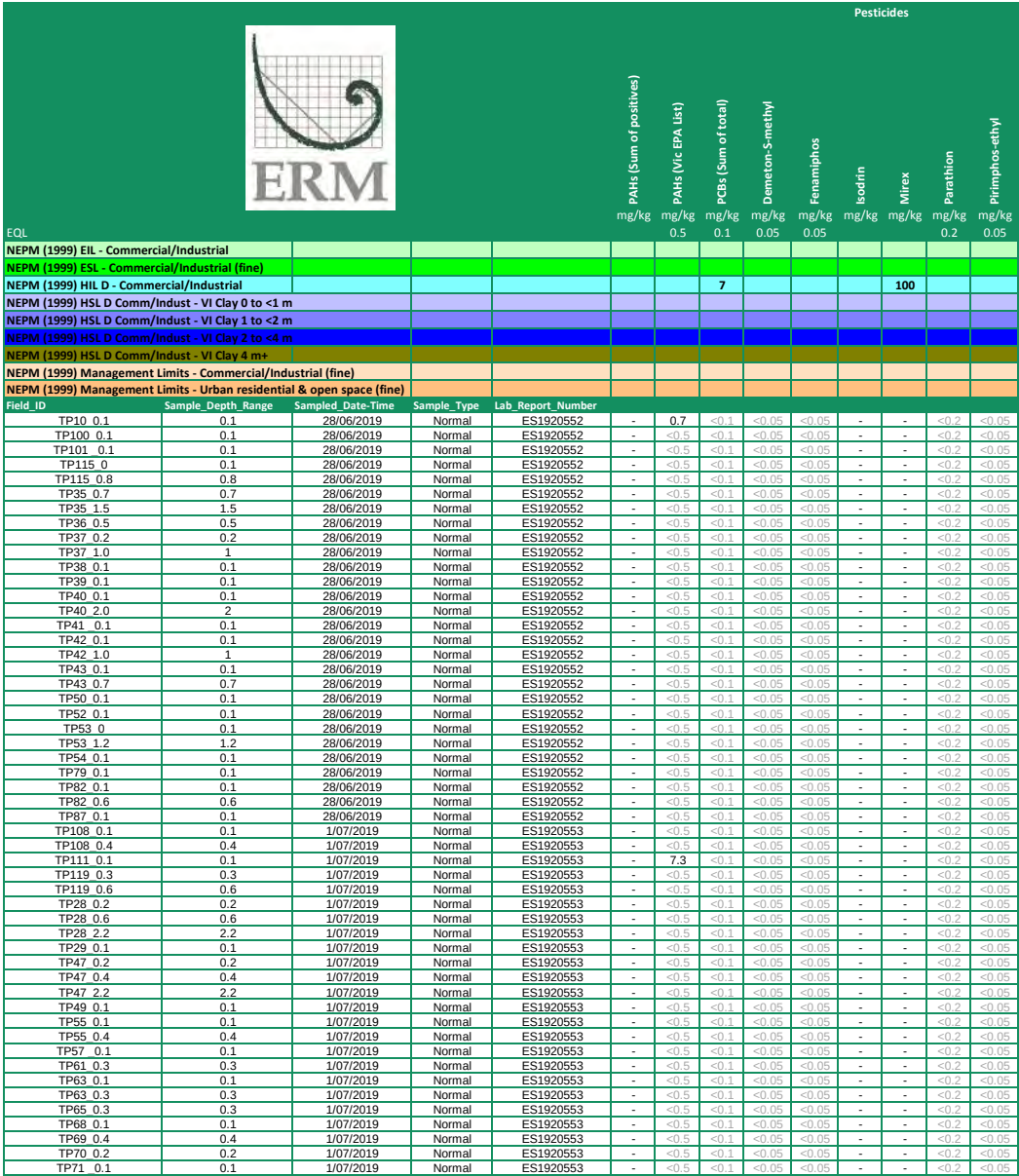


Organophosphorous Pesticides

PAH

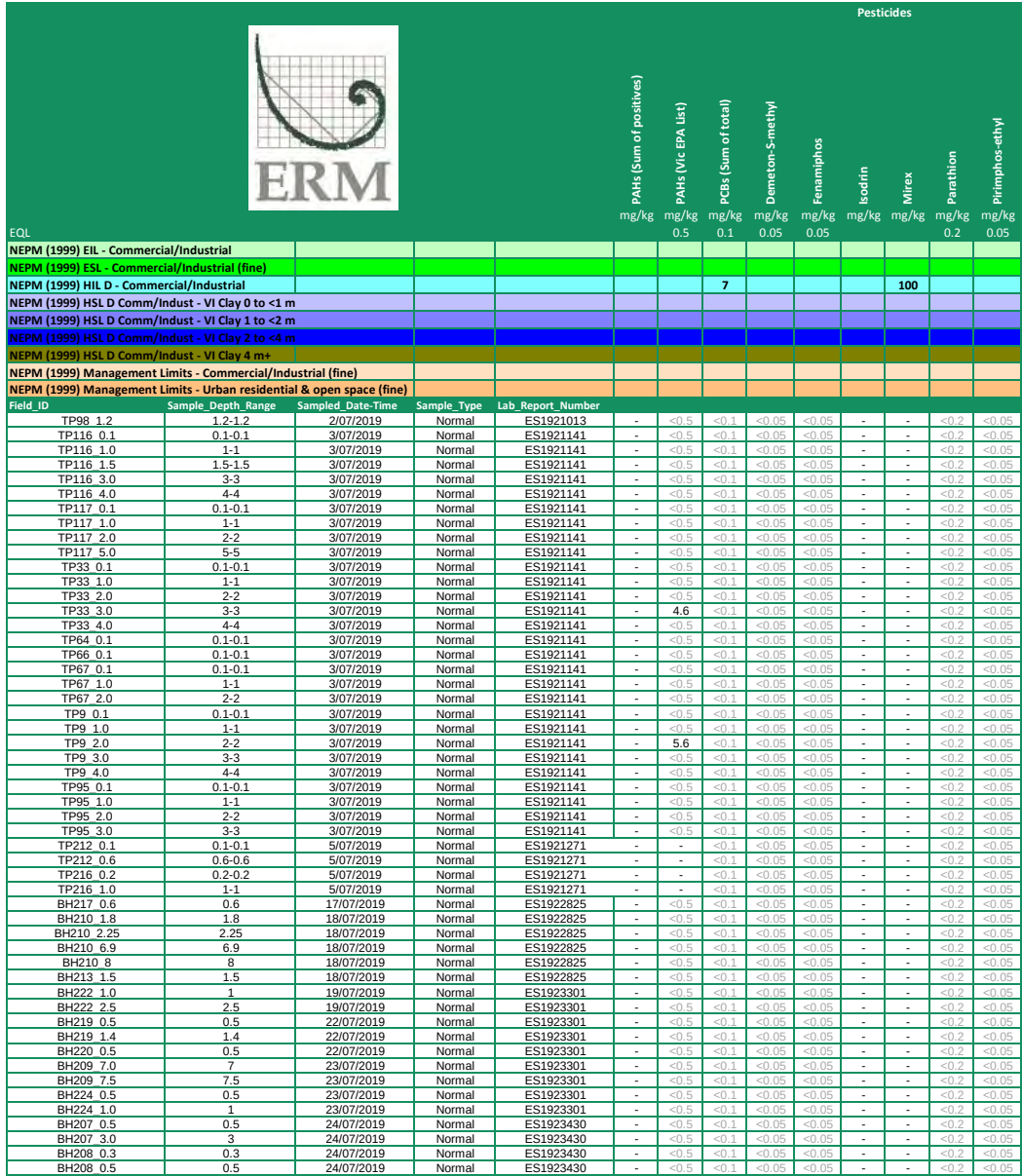
EQL

NEPM (1999) EIL - Commercial/Industrial																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			





						Pesticides									
						PAHs (Sum of positives)	PAHs (Vic EPA List)	PCBs (Sum of total)	Demeton-S-methyl	Fenamiphos	Isodrin	Mirex	Parathion	Phosphos-ethyl	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.5	0.1	0.05	0.05				0.2	0.05	
NEPM (1999) EIL - Commercial/Industrial															
NEPM (1999) ESL - Commercial/Industrial (fine)															
NEPM (1999) HIL D - Commercial/Industrial								7				100			
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+															
NEPM (1999) Management Limits - Commercial/Industrial (fine)															
NEPM (1999) Management Limits - Urban residential & open space (fine)															
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number											
TP72 0.1	0.1	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP72 0.4	0.4	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP78 0.1	0.1	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP78 0.2	0.2	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP85 0.5	0.5	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP85 0.8	0.8	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP94 0.1	0.1	1/07/2019	Normal	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP44 0.1	0.1-0.1	2/07/2019	Normal	ES1921141	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP113 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP113 0.8	0.8-0.8	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP114 0.2	0.2-0.2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP114 2	2-2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP114 3.2	3.2-3.2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP118 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP118 1.1	1.1-1.1	2/07/2019	Normal	ES1921013	-	6.8	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP118 1.5	1.5-1.5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP118 2	2-2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP118 5	5-5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 1	1-1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 2	2-2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 3	3-3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 4	4-4	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP120 5	5-5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP124 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP124 1	1-1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP124 2	2-2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP124 3	3-3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP19 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP19 0.3	0.3-0.3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP19 0.6	0.6-0.6	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP32 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP32 0.3	0.3-0.3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP32 0.6	0.6-0.6	2/07/2019	Normal	ES1921013	-	1.3	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP32 1.5	1.5-1.5	2/07/2019	Normal	ES1921013	-	1	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP32 3.5	3.5-3.5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP34 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP34 0.6	0.6-0.6	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP44 0.3	0.3-0.3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP44 1.4	1.4-1.4	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 1	1-1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 2	2-2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 3	3-3	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 4	4-4	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP8 5.5	5.5-5.5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP97 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP97 1.5	1.5-1.5	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP97 2.2	2.2-2.2	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP98 0.1	0.1-0.1	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP98 0.4	0.4-0.4	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
TP98 0.8	0.8-0.8	2/07/2019	Normal	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	





						Pesticides									
						PAHs (Sum of positives)	PAHs (Vic EPA List)	PCBs (Sum of total)	Demeton-S-methyl	Fenamiphos	Isodrin	Mirex	Parathion	Phosphor-ethyl	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.5	0.1	0.05	0.05				0.2	0.05	
NEPM (1999) EIL - Commercial/Industrial															
NEPM (1999) ESL - Commercial/Industrial (fine)															
NEPM (1999) HIL D - Commercial/Industrial							7					100			
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m															
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+															
NEPM (1999) Management Limits - Commercial/Industrial (fine)															
NEPM (1999) Management Limits - Urban residential & open space (fine)															
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number											
BH215 0.5	0.5	24/07/2019	Normal	ES1923430	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH215 1.5	1.5	24/07/2019	Normal	ES1923430	-	0.6	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH215 2	2	24/07/2019	Normal	ES1923430	-	15.4	<0.1	<0.25	<0.25	-	-	-	<1	<0.25	
BH215 2.5	2.5	24/07/2019	Normal	ES1923430	-	5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH215 3	3	24/07/2019	Normal	ES1923430	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH215 4	4	24/07/2019	Normal	ES1923430	-	0.7	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH227 0.5	0.5	24/07/2019	Normal	ES1923430	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH227 0.8	0.8	24/07/2019	Normal	ES1923430	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH206 1.3	1.3-1.3	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH206 2.3	2.3-2.3	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH211 0.1	0.1-0.1	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH211 0.5	0.5-0.5	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH214 0.5	0.5-0.5	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH214 1.5	1.5-1.5	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH218 0.1	0.1-0.1	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH218 1	1-1	25/07/2019	Normal	ES1923630	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH202 1.0	1-1	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH202 3.5	3.5-3.5	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH225 1.6	1.6-1.6	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH225 4.0	4-4	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH225 9.5	9.5-9.5	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH226 1.0	1-1	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH226 3.0	3-3	26/07/2019	Normal	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH104 0.1	0.1	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH105 0.1	0.1	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH106 0.1	0.1	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH107 0.2	0.2	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH110 0.3	0.3	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH110 1	1	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH112 0.1	0.1	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH121 0.3	0.3	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH122 0.8	0.8	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH51 0.8	0.8	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH51 2.5	2.5	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BR105 0.8	0.8	31/07/2019	Normal	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH102 0.5	0.5-0.5	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH109 0.5	0.5-0.5	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH109 1.0	1-1	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH80 0.3	0.3-0.3	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH84 0.2	0.2-0.2	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH84 2.2	2.2-2.2	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH84 2.8	2.8-2.8	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH86 0.5	0.5-0.5	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH86 2.0	2-2	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH93 5.5	5.5-5.5	1/08/2019	Normal	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH103 0.2	0.2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH103 2.0	2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH123 0.5	0.5	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH222A 0.8	0.8	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH222A 2.0	2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH74 0.2	0.2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	
BH74 0.8	0.8	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	-	<0.2	<0.05	



					Pesticides									
					PAHs (Sum of positives)	PAHs (Vic EPA List)	PCBs (Sum of total)	Demeton-S-methyl	fenamiphos	iodrin	Mirex	Pratthion	Phosphos-ethyl	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
					0.5	0.1	0.05	0.05						
EQL														
NEPM (1999) EIL - Commercial/Industrial														
NEPM (1999) ESL - Commercial/Industrial (fine)														
NEPM (1999) HIL D - Commercial/Industrial							7				100			
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m														
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m														
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m														
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+														
NEPM (1999) Management Limits - Commercial/Industrial (fine)														
NEPM (1999) Management Limits - Urban residential & open space (fine)														
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number										
BH76 0.2	0.2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH76 2.8	2.8	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH77 0.3	0.3	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH81 0.2	0.2	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH88 0.8	0.8	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH90 0.3	0.3	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH91 0.5	0.5	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH92 0.5	0.5	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH92 2.5	2.5	2/08/2019	Normal	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH215A 1.5	1.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH215B 1.2	1.2	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH215C 1.5	1.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH30 0.5	0.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH30 1.7	1.7	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH45 0.5	0.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH45 2.7	2.7	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH89 0.2	0.2	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH89 2.0	2	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH96 0.5	0.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH99 0.3	0.3	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH99A 0.5	0.5	5/08/2019	Normal	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH125 0.5	0.5	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH125 1.2	1.2	12/08/2019	Normal	ES1925846	-	0.8	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH125 2.3	2.3	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH56 0.5	0.5	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH56 1.5	1.5	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH58 0.4	0.4	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH59 0.3	0.3	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH59 0.8	0.8	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
BH60 1.0	1	12/08/2019	Normal	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
Intra -Lab Duplicates														
QC101	0.1	28/06/2019	Field D	ES1920552	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC102	0.1	28/06/2019	Field D	ES1920552	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC104	0.1	28/06/2019	Field D	ES1920552	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC105	0.2	1/07/2019	Field D	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC106	0.3	1/07/2019	Field D	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC108	0.4	1/07/2019	Field D	ES1920553	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC 110	2.2	2/07/2019	Field D	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC109	0.6-0.6	2/07/2019	Field D	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC111	0.1-0.1	2/07/2019	Field D	ES1921013	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC112	1-1	3/07/2019	Field D	ES1921141	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC113	2-2	3/07/2019	Field D	ES1921141	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC114	1-1	3/07/2019	Field D	ES1921141	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC116	0.6	17/07/2019	Field D	ES1922825	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC118	1.8	18/07/2019	Field D	ES1922825	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC120	1	19/07/2019	Field D	ES1923301	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC121	0.5	23/07/2019	Field D	ES1923301	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC122	3	24/07/2019	Field D	ES1923430	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC123	1-1	26/07/2019	Field D	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC124	4-4	26/07/2019	Field D	ES1922824	-	-	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC126	0.8	31/07/2019	Field D	ES1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	
QC127	2.2-2.2	1/08/2019	Field D	ES1924662	-	-	<0.1	<0.05	<0.05	-	-	<0.2	<0.05	



Pesticides

EQL

					PAHs (Sum of positives)	PAHs (Vic EPA List)	PCBs (Sum of total)	Demeton-S-methyl	Fenamiphos	Isodrin	Mirex	Parathion	Phosphor-ethyl
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
					0.5	0.1	0.05	0.05				0.2	0.05
NEPM (1999) EIL - Commercial/Industrial													
NEPM (1999) ESL - Commercial/Industrial (fine)													
NEPM (1999) HIL D - Commercial/Industrial							7				100		
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+													
NEPM (1999) Management Limits - Commercial/Industrial (fine)													
NEPM (1999) Management Limits - Urban residential & open space (fine)													
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Sample_Type	Lab_Report_Number									
QC129	0.2	2/08/2019	Field D	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
QC130	2	2/08/2019	Field D	ES1924667	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
QC132	0.5	5/08/2019	Field D	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
QC133	0.2	5/08/2019	Field D	ES1925016	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
QC135	1.2	12/08/2019	Field D	ES1925846	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
Inter-Lab Duplicates													
QC201	0.1	28/06/2019	Interlab D	SE194902	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC205	0.2	1/07/2019	Interlab D	SE194902	1.7	-	<1	-	-	<0.1	<0.1	<0.2	-
QC209	0.6-0.6	2/07/2019	Interlab D	SE195008	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC211	0.1-0.1	2/07/2019	Interlab D	SE195008	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC212	1-1	3/07/2019	Interlab D	SE195009	4.4	-	<1	-	-	<0.1	<0.1	<0.2	-
QC216	0.6	17/07/2019	Interlab D	SE195899	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC218	1.8	18/07/2019	Interlab D	SE195899	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC215	1	19/07/2019	Interlab D	SE195899	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC217	0.5	23/07/2019	Interlab D	SE195899	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC219	1	26/07/2019	Interlab D	SE195899	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC220	0.8	31/07/2019	Interlab D	SE1924328	-	<0.5	<0.1	<0.05	<0.05	-	-	<0.2	<0.05
QC221	0.2	2/08/2019	Interlab D	SE196288	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC222	0.2	5/08/2019	Interlab D	SE196288	<0.8	-	<1	-	-	<0.1	<0.1	<0.2	-
QC224	1.2	12/08/2019	Interlab D	SE196457	3.4	-	<1	-	-	<0.1	<0.1	<0.2	-
Statistical Summary													
Minimum Concentration					1.7	0.6	<0.1	<0.05	<0.05	<0.1	<0.1	<0.2	<0.05
Maximum Concentration					4.4	15.4	<1	<0.25	<0.25	<0.1	<0.1	<1	<0.25
Average Concentration					1	0.45	0.071	0.025	0.025	0.05	0.05	0.1	0.025
Standard Deviation					1.3	1.3	0.095	0.0061	0.0061	0	0	0.024	0.0061



Health Screening Levels
Comm/Ind (w/w %)

0.001%

0.05%

0.05%

Sample ID	Date	Lab Report	Asbestos in soil		ACM retained on sieve
			AF/FA	Bonded	Bonded
TP10_0.1	28.6.19	ASET74696	nd	nd	--
TP35_0.7	28.6.19	ASET74696	0.004%	nd	--
TP35_1.5	28.6.19	ASET74696	nd	nd	--
TP36_0.5	28.6.19	ASET74696	nd	nd	--
TP37_0.2	28.6.19	ASET74696	nd	nd	--
TP37_1.0	28.6.19	ASET74696	nd	nd	--
TP38_0.1	28.6.19	ASET74696	nd	nd	--
TP39_0.1	28.6.19	ASET74696	nd	nd	--
TP40_0.1	28.6.19	ASET74696	nd	nd	--
TP40_2.0	28.6.19	ASET74696	nd	nd	--
TP41_0.2	28.6.19	ASET74696	nd	nd	--
TP42_0.1	28.6.19	ASET74696	nd	nd	--
QC104	28.6.19	ASET74696	nd	nd	--
TP42_1.0	28.6.19	ASET74696	nd	nd	--
TP43_0.1	28.6.19	ASET74696	nd	nd	--
TP43_0.7	28.6.19	ASET74696	nd	nd	--
TP50_0.1	28.6.19	ASET74696	nd	nd	--
TP52_0.1	28.6.19	ASET74696	nd	nd	--
TP53_0.1	28.6.19	ASET74696	nd	nd	--
TP53_1.2	28.6.19	ASET74696	nd	nd	--
TP54_0.1	28.6.19	ASET74696	nd	nd	--
QC101	28.6.19	ASET74696	nd	nd	--
QC201	28.6.19	SE195011	nd	nd	--
TP79_0.1	28.6.19	ASET74696	nd	nd	--
TP82_0.1	28.6.19	ASET74696	nd	nd	--
QC102	28.6.19	ASET74696	nd	nd	--
TP82_0.6	28.6.19	ASET74696	nd	nd	--
TP87_0.1	28.6.19	ASET74696	nd	nd	--
TP100_0.1	28.6.19	ASET74696	nd	nd	--
TP101_0.1	28.6.19	ASET74696	nd	nd	--
TP115_0.1	28.6.19	ASET74696	nd	nd	--
TP115_0.8	28.6.19	ASET74696	nd	nd	--
TP28_0.2	1.7.19	ASET74680	nd	nd	--
TP28_0.6	1.7.19	ASET74680	nd	nd	--
TP28_2.2	1.7.19	ASET74680	nd	nd	--
TP29_0.1	1.7.19	ASET74680	nd	nd	--
TP47_0.2	1.7.19	ASET75824	nd	nd	--
QC105	1.7.19	ASET75824	nd	nd	--
QC205	1.7.19	SE196568	nd	nd	--
TP47_0.4	1.7.19	ASET74680	nd	nd	--
TP47_2.2	1.7.19	ASET74680	nd	nd	--
TP49_0.1	1.7.19	ASET74680	nd	nd	--
TP55_0.1	1.7.19	ASET74680	nd	nd	--
TP55_0.4	1.7.19	ASET74680	nd	nd	--
QC108	1.7.19	ASET74680	nd	nd	--
TP57_0.1	1.7.19	ASET74680	nd	nd	--
TP61_0.3	1.7.19	ASET74680	nd	nd	--
TP63_0.1	1.7.19	ASET74680	nd	nd	--
TP63_0.3	1.7.19	ASET74680	nd	nd	--

TP65_0.3	1.7.19	ASET74680	nd	nd	--
QC106	1.7.19	ASET74680	nd	nd	--
TP68_0.1	1.7.19	ASET74680	nd	nd	--
TP69_0.4	1.7.19	ASET74680	nd	nd	--
TP70_0.2	1.7.19	ASET74680	nd	nd	--
TP71_0.1	1.7.19	ASET74680	nd	nd	--
TP72_0.1	1.7.19	ASET74680	nd	nd	--
TP78_0.1	1.7.19	ASET74680	nd	nd	--
TP78_0.2	1.7.19	ASET74680	nd	nd	--
TP85_0.5	1.7.19	ASET74680	nd	nd	--
TP85_0.8	1.7.19	ASET74680	nd	nd	--
TP94_0.1	1.7.19	ASET74680	nd	nd	--
TP108_0.1	1.7.19	ASET74680	nd	nd	--
TP108_0.4	1.7.19	ASET74680	nd	nd	--
TP111_0.1	1.7.19	ASET74680	nd	nd	--
TP119_0.3	1.7.19	ASET74680	nd	nd	--
TP119_0.6	1.7.19	ASET74680	nd	nd	--
TP72_0.4	1.7.19	ASET74680	nd	nd	--
QC107	1.7.19	ASET74680	nd	nd	--
QC207	1.7.19	SE195010	nd	nd	--
TP8_0.1	2.7.19	ASET74679	nd	nd	--
QC111	2.7.19	ASET74679	nd	nd	--
QC211	2.7.19	SE195008	nd	nd	--
TP8_1	2.7.19	ASET74679	nd	0.0005%	--
TP8_2	2.7.19	ASET74679	0.0005%	--	0.0244%
TP8_3	2.7.19	ASET74679	nd	nd	--
TP8_4	2.7.19	ASET74679	nd	--	0.1609%
TP8_5.5	2.7.19	ASET74679	nd	--	0.0190%
TP19_0.1	2.7.19	ASET74679	nd	nd	--
TP19_0.3	2.7.19	ASET74679	nd	nd	--
TP19_0.6	2.7.19	ASET74679	nd	nd	--
QC109	2.7.19	ASET74679	nd	nd	--
QC209	2.7.19	SE195008	nd	nd	--
TP32_0.1	2.7.19	ASET74679	nd	nd	--
TP32_0.3	2.7.19	ASET74679	nd	nd	--
TP32_0.6	2.7.19	ASET74679	nd	nd	--
TP32_1.5	2.7.19	ASET74679	nd	nd	--
TP32_3.5	2.7.19	ASET74679	nd	nd	--
TP34_0.1	2.7.19	ASET74679	nd	nd	--
TP34_0.6	2.7.19	ASET74679	nd	nd	--
TP44_0.1	2.7.19	ASET74679	nd	nd	--
TP44_0.3	2.7.19	ASET74679	nd	nd	--
TP44_1.4	2.7.19	ASET74679	nd	nd	--
TP97_0.1	2.7.19	ASET74679	nd	nd	--
TP97_1.5	2.7.19	ASET74679	nd	nd	--
TP97_2.2	2.7.19	ASET74679	nd	nd	--
TP98_0.1	2.7.19	ASET74679	nd	nd	--
TP98_0.4	2.7.19	ASET74679	0.00004%	nd	--
TP98_0.8	2.7.19	ASET74679	nd	nd	--
TP98_1.2	2.7.19	ASET74679	nd	nd	--
TP113_0.1	2.7.19	ASET74679	nd	nd	--
TP113_0.8	2.7.19	ASET74679	nd	nd	--
TP114_0.2	2.7.19	ASET74679	nd	nd	--
TP114_2	2.7.19	ASET74679	nd	nd	--
QC 110	2.7.19	ASET74679	nd	nd	--
TP114_3.2	2.7.19	ASET74679	nd	nd	--
TP118_0.1	2.7.19	ASET74679	nd	nd	--
TP118_1.1	2.7.19	ASET74679	nd	nd	--
TP118_1.5	2.7.19	ASET74679	nd	nd	--

TP118_2	2.7.19	ASET74679	nd	nd	--
TP118_5	2.7.19	ASET74679	0.0002%	nd	--
TP120_0.1	2.7.19	ASET74679	nd	0.002%	--
TP120_1	2.7.19	ASET74679	0.0003%	nd	0.0041%
TP120_2	2.7.19	ASET74679	nd	nd	--
TP120_3	2.7.19	ASET74679	0.00003%	0.00056%	--
TP120_4	2.7.19	ASET74679	nd	nd	--
TP120_5	2.7.19	ASET74679	nd	nd	--
TP124_0.1	2.7.19	ASET74679	nd	nd	--
TP124_1	2.7.19	ASET74679	nd	--	0.0248%
TP124_2	2.7.19	ASET74679	nd	--	0.0236%
TP124_3	2.7.19	ASET74679	nd	nd	--
TP9_0.1	3.7.19	ASET74681	nd	nd	--
TP9_1.0	3.7.19	ASET74681	nd	--	0.0508%
QC112	3.7.19	ASET74681	0.0005%	nd	--
QC212	3.7.19	SE195009	nd	nd	--
TP9_2.0	3.7.19	ASET74681	nd	--	0.0157%
TP9_3.0	3.7.19	ASET74681	nd	0.00586%	--
TP9_4.0	3.7.19	ASET74681	nd	0.0067%	--
TP33_0.1	3.7.19	ASET74681	nd	0.0004%	--
TP33_1.0	3.7.19	ASET74681	nd	nd	--
TP33_2.0	3.7.19	ASET74681	nd	nd	--
TP33_3.0	3.7.19	ASET74681	nd	nd	--
TP33_4.0	3.7.19	ASET74681	nd	nd	--
TP64_0.1	3.7.19	ASET74681	nd	nd	--
TP66_0.1	3.7.19	ASET74681	nd	nd	--
TP67_0.1	3.7.19	ASET74681	nd	nd	--
TP67_1.0	3.7.19	ASET74681	nd	nd	--
TP67_2.0	3.7.19	ASET74681	nd	nd	--
TP95_0.1	3.7.19	ASET74681	nd	nd	--
TP95_1.0	3.7.19	ASET74681	nd	nd	--
QC 114	3.7.19	ASET74681	nd	nd	--
TP95_2.0	3.7.19	ASET74681	nd	nd	--
TP95_3.0	3.7.19	ASET74681	nd	nd	--
TP116_0.1	3.7.19	ASET74681	nd	nd	--
TP116_1.0	3.7.19	ASET74681	nd	nd	--
TP116_1.5	3.7.19	ASET74681	nd	nd	--
TP116_3.0	3.7.19	ASET74681	nd	nd	--
TP116_4.0	3.7.19	ASET74681	nd	nd	--
TP117_0.1	3.7.19	ASET74681	nd	nd	--
TP117_1.0	3.7.19	ASET74681	nd	nd	--
TP117_2.0	3.7.19	ASET74681	nd	nd	--
QC113	3.7.19	ASET74681	nd	nd	--
TP117_5.0	3.7.19	ASET74681	nd	nd	--
TP212_0.6	5.7.19	ASET75210	nd	nd	--
TP216_0.2	5.7.19	ASET75210	nd	nd	--
TP216_1.0	5.7.19	ASET75210	nd	nd	--
TP212_0.1	5.7.19	ASET75210	nd	nd	--
BH217_0.6	17.7.19	ASET75211	nd	nd	--
QC116	17.7.19	ASET75211	nd	nd	--
QC216	17.7.19	SE195825	nd	nd	--
BH210_1.8	18.7.19	ASET75823	nd	nd	--
QC118	18.7.19	ASET75823	nd	nd	--
BH210_2.25	18.7.19	ASET75823	nd	nd	--
BH210_6.9	18.7.19	ASET75823	nd	nd	--
BH210_8	18.7.19	ASET75823	nd	nd	--
BH213_1.5	18.7.19	ASET75823	nd	nd	--
BH222_1.0	19.7.19	ASET75213	nd	nd	--
QC120	19.7.19	ASET75213	nd	nd	--

QC215	19.7.19	SE195825	nd	nd	--
BH222_2.5	19.7.19	ASET75213	nd	nd	--
BH219_0.5	22.7.19	ASET75212	nd	nd	--
BH219_1.4	22.7.19	ASET75212	nd	nd	--
BH220_0.5	22.7.19	ASET75212	nd	nd	--
BH209_7.0	23.7.19	ASET75214	nd	nd	--
BH209_7.5	23.7.19	ASET75214	0.00002%	nd	--
BH224_0.5	23.7.19	ASET75214	nd	nd	--
QC121	23.7.19	ASET75214	nd	nd	--
QC217	23.7.19	SE195825	nd	nd	--
BH224_1.0	23.7.19	ASET75214	nd	nd	--
BH207_0.5	24.7.19	ASET75231	nd	nd	--
BH207_3.0	24.7.19	ASET75231	nd	nd	--
BH208_0.3	24.7.19	ASET75231	nd	nd	--
BH215_0.5	24.7.19	ASET75231	nd	nd	--
BH215_2	24.7.19	ASET75231	nd	nd	--
BH215_3	24.7.19	ASET75231	nd	nd	--
QC122	24.7.19	ASET75231	nd	nd	--
BH215_4	24.7.19	ASET75231	nd	nd	--
BH227_0.5	24.7.19	ASET75231	nd	nd	--
BH227_0.8	24.7.19	ASET75231	nd	nd	--
BH206_1.3	25.7.19	ASET75276	nd	nd	--
BH206_2.0	25.7.19	ASET75276	nd	nd	--
BH211_0.1	25.7.19	ASET75824	nd	nd	--
BH211_0.5	25.7.19	ASET75276	nd	nd	--
BH214_0.5	25.7.19	ASET75276	nd	nd	--
BH214_1.5	25.7.19	ASET75276	nd	nd	--
BH218_0.1	25.7.19	ASET75276	nd	nd	--
BH218_1	25.7.19	ASET75276	nd	nd	--
BH202_1.0	26.7.19	ASET75318	nd	nd	--
BH202_3.5	26.7.19	ASET75318	nd	nd	--
BH226_1.0	26.7.19	ASET75318	nd	nd	--
QC123	26.7.19	ASET75318	nd	nd	--
QC219	26.7.19	SE195899	nd	nd	--
BH226_3.0	26.7.19	ASET75318	nd	nd	--
BH225_1.6	26.7.19	ASET75318	nd	nd	--
BH225_4.0	26.7.19	ASET75318	nd	nd	--
QC124	26.7.19	ASET75318	nd	nd	--
BH225_9.5	26.7.19	ASET75318	nd	nd	--
BH51_0.8	31.07.2019	ASET75822	nd	nd	--
QC126	31.07.2019	ASET75822	nd	nd	--
QC220	31.07.2019	SE196568	nd	nd	--
BH51_2.5	31.07.2019	ASET75822	nd	nd	--
BH104_0.1	31.07.2019	ASET75822	nd	nd	--
BH105_0.1	31.07.2019	ASET75822	nd	nd	--
BH105_0.8	31.07.2019	ASET75822	nd	nd	--
BH106_0.1	31.07.2019	ASET75822	nd	nd	--
BH107_0.2	31.07.2019	ASET75822	nd	nd	--
BH110_0.3	31.07.2019	ASET75822	nd	nd	--
BH110_1	31.07.2019	ASET75822	nd	nd	--
BH112_0.1	31.07.2019	ASET75822	nd	nd	--
BH121_0.3	31.07.2019	ASET75822	nd	nd	--
BH122_0.8	31.07.2019	ASET75822	nd	nd	--
BH86_0.5	1.8.19	ASET75510	nd	nd	--
BH86_2	1.8.19	ASET75510	nd	nd	--
BH109_0.5	1.8.19	ASET75510	nd	nd	--
BH109_1	1.8.19	ASET75510	nd	nd	--
BH84_0.2	1.8.19	ASET75510	nd	nd	--
BH84_2.2	1.8.19	ASET75510	nd	nd	--

QC127	1.8.19	ASET75510	nd	nd	--
BH84_2.8	1.8.19	ASET75510	nd	nd	--
BH102_0.5	1.8.19	ASET75510	nd	nd	--
BH93_5.5	1.8.19	ASET75510	nd	nd	--
BH80_0.3	1.8.19	ASET75510	nd	nd	--
BH74_0.8	2/08/2019	ASET75509	nd	nd	--
BH75_0.3	2/08/2019	ASET75509	nd	nd	--
BH76_0.2	2/08/2019	ASET75509	nd	nd	--
QC221	2/08/2019	SE196288	nd	nd	
QC129	2/08/2019	ASET75509	nd	nd	--
BH76_2.8	2/08/2019	ASET75509	nd	nd	--
BH77_0.3	2/08/2019	ASET75509	nd	nd	--
BH81_0.2	2/08/2019	ASET75509	nd	nd	--
BH88_0.8	2/08/2019	ASET75509	nd	nd	--
BH90_0.3	2/08/2019	ASET75509	nd	nd	--
BH91_0.5	2/08/2019	ASET75509	nd	nd	--
BH92_0.5	2/08/2019	ASET75509	nd	nd	--
BH92_2.5	2/08/2019	ASET75509	nd	nd	--
BH103_0.2	2/08/2019	ASET75509	nd	nd	--
BH103_2.0	2/08/2019	ASET75509	nd	nd	--
BH123_0.5	2/08/2019	ASET75509	nd	nd	--
BH222A_0.8	2/08/2019	ASET75509	nd	nd	--
QC130	2/08/2019	ASET75509	nd	nd	--
BH222A_2.0	2/08/2019	ASET75509	nd	nd	--
BH99_0.3	5/08/2019	ASET75591	nd	nd	--
BH89_0.2	5/08/2019	ASET75591	nd	nd	--
QC133	5/08/2019	ASET75591	nd	nd	--
QC222	5/08/2019	SE196288	nd	nd	
BH89_2.0	5/08/2019	ASET75591	nd	nd	--
BH96_0.5	5/08/2019	ASET75591	nd	nd	--
BH99A_0.5	5/08/2019	ASET75591	nd	nd	--
BH30_0.5	5/08/2019	ASET75591	nd	nd	--
BH30_1.7	5/08/2019	ASET75591	nd	nd	--
BH45_0.5	5/08/2019	ASET75591	nd	nd	--
QC132	5/08/2019	ASET75591	nd	nd	--
BH45_2.7	5/08/2019	ASET75591	nd	nd	--
BH215A_1.5	5/08/2019	ASET75591	nd	nd	--
BH215B_1.2	5/08/2019	ASET75591	nd	nd	--
BH215C_1.5	5/08/2019	ASET75591	nd	nd	--
BH125_0.5	12/08/2019	ASET75703	nd	nd	--
BH125_1.2	12/08/2019	ASET75703	nd	nd	--
QC135	12/08/2019	ASET75703	nd	nd	--
QC224	12/08/2019	SE196457	nd	nd	--
BH125_2.3	12/08/2019	ASET75703	nd	nd	--
BH56_0.5	12/08/2019	ASET75703	nd	nd	--
BH56_1.5	12/08/2019	ASET75703	nd	nd	--
BH58_0.4	12/08/2019	ASET75703	nd	nd	--
BH59_0.3	12/08/2019	ASET75703	nd	nd	--
BH59_0.8	12/08/2019	ASET75703	nd	nd	--
BH60_1.0	12/08/2019	ASET75703	nd	nd	--



					PAH/Phenols (GC/MS - SIM)										Phenols									
					Unionized Hydrogen Sulfide	3 - & 4-Methylphenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	4-chloro-3-methylphenol	Pentachlorophenol	Phenol	Phenolics Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16			
EQL					mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
					0.01	2	1	1	1	1	1	1	1	1	1	2	1		10	10	50			
ANZECC (2000) TV - Freshwater (95%)								20	160			490				10	320							
NEPM (1999) GIL - Freshwater								3	120			340				3.6	320							
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																								
Recreational water quality and aesthetics							1	10							10									
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number																				
EW1	EW1		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
EW2	EW2		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
EW3	EW3		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
MW2A	MW2A		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	1050			
MW3A	MW3A		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
MW4	MW4		14/08/2019	ES1925853	-	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
MW7	MW7		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	<100			
Intra - Lab Duplicate																								
DO1	MW2A		8/08/2019	ES1925172	<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	-	<20	<20	910			
Inter - Lab Duplicate																								
T01	T01		8/08/2019	223481	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<10	<10	1400			
Statistical Summary																								
Minimum Concentration					<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<50	<10	<10	910			
Maximum Detect					<0.01	<2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<50	<20	<20	1400			
Average Concentration					0.005	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5		9.4	9.4	407			
Standard Deviation					0	0	0	0	0	0	0	0	0	0	0	0	0		1.7	1.7	550			



					TRH				BTEX							Halogenated Benzenes			Inorganics		
					C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Hexachlorobenzene	Nitrite + Nitrate as N	Ammonia	Ammonia as N	Chloride	Cyanide Total
EQL					µg/L 50	µg/L 100	µg/L 100	µg/L 100	µg/L 1	µg/L 1	µg/L 1	µg/L 2	µg/L 1	µg/L 2	µg/L 1	µg/L 0.2	mg/L 0.01	mg/L	mg/L 0.01	mg/L 1	mg/L 0.004
ANZECC (2000) TV - Freshwater (95%)									950				350					0.9			0.007
NEPM (1999) GIL - Freshwater									950				350					0.9			0.007
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m									30000	NL	NL			NL							
Recreational water quality and aesthetics									10										0.01	400	0.1
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number																	
EW1	EW1		8/08/2019	ES1925172	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	0.03	-	0.12	3120	<0.004
EW2	EW2		8/08/2019	ES1925172	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	0.2	-	1.97	5060	<0.004
EW3	EW3		8/08/2019	ES1925172	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	<0.1	-	1.2	4530	<0.004
MW2A	MW2A		8/08/2019	ES1925172	1040	2140	<100	3190	<1	<2	<2	<2	<2	<2	<1	<0.5	0.01	-	0.45	142	<0.004
MW3A	MW3A		8/08/2019	ES1925172	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	0.25	-	0.6	7130	<0.004
MW4	MW4		14/08/2019	ES1925853	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	0.51	-	0.17	669	-
MW7	MW7		8/08/2019	ES1925172	<100	1300	450	1750	<1	<2	<2	<2	<2	<2	<1	<0.5	0.04	-	0.38	995	<0.004
Intra - Lab Duplicate																					
DO1	MW2A		8/08/2019	ES1925172	900	1940	<100	2850	<1	<2	<2	<2	<2	<2	<1	<0.5	0.04	-	0.46	141	<0.004
Inter - Lab Duplicate																					
T01	T01		8/08/2019	223481	1400	2600	<100	-	<1	<1	<1	<2	<1	-	-	<0.2	-	0.34	-	110	<0.004
Statistical Summary																					
Minimum Concentration					900	1300	450	1750	<1	<1	<1	<2	<1	<2	<1	<0.2	0.01	0.34	0.12	110	<0.004
Maximum Detect					1400	2600	450	3190	<1	<2	<2	<2	<2	<2	<1	<0.5	0.51	0.34	1.97	7130	<0.004
Average Concentration					404	914	94	1005	0.5	0.94	0.94	1	0.94	1	0.5	0.23	0.14		0.67	2433	0.002
Standard Deviation					547	1077	133	1378	0	0.17	0.17	0	0.17	0	0	0.05	0.17		0.62	2620	0



Metals

					Nitrate (as N)	Nitrite (as N)	Sulphide	TDS	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	chlordane	Chlordane (cis)
EQL					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
0.005					0.01			5	0.001	0.0001	0.001	0.001	0.001	0.00005	0.001	0.001	0.2	0.2	0.2	0.5	0.2	0.5	0.2
ANZECC (2000) TV - Freshwater (95%)										0.0002		0.0014	0.0034	0.0006	0.011	0.008						0.08	
NEPM (1999) GIL - Freshwater									0.013	0.0002	0.001	0.0014	0.0034	0.00006	0.011	0.008							
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																							
Recreational water quality and aesthetics					10	1	0.05	1000	0.05	0.005	0.05	1	0.05	0.001	0.1	5			1			6	
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number																			
EW1	EW1		8/08/2019	ES1925172	0.01	0.02	-	5880	<0.001	<0.0001	<0.001	0.001	<0.001	<0.0001	<0.001	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EW2	EW2		8/08/2019	ES1925172	0.2	<0.01	-	8780	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
EW3	EW3		8/08/2019	ES1925172	<0.1	0.02	-	7500	0.002	<0.0001	<0.001	<0.001	<0.001	<0.0001	0.001	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	MW2A		8/08/2019	ES1925172	0.01	<0.01	-	1120	0.023	<0.0001	<0.001	0.001	<0.001	<0.0001	0.002	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	MW3A		8/08/2019	ES1925172	0.19	0.06	-	13,400	0.011	0.0003	<0.001	0.003	<0.001	<0.0001	0.009	0.096	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW4	MW4		14/08/2019	ES1925853	0.51	<0.01	-	4010	<0.001	<0.0001	<0.001	0.002	<0.001	<0.0001	0.003	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW7	MW7		8/08/2019	ES1925172	<0.01	0.04	-	5370	0.006	<0.0001	<0.001	0.002	<0.001	<0.0001	0.027	0.008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Intra - Lab Duplicate																							
DO1	MW2A		8/08/2019	ES1925172	0.04	<0.01	-	1120	0.025	<0.0001	0.001	0.002	<0.001	<0.0001	0.003	0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Inter - Lab Duplicate																							
T01	T01		8/08/2019	223481	<0.005	-	<0.5	1100	0.022	<0.0001	0.001	<0.001	<0.001	<0.00005	0.002	0.002	<0.2	<0.2	<0.2	-	<0.2	-	<0.2
Statistical Summary																							
Minimum Concentration					0.01	0.02	<0.5	1100	0.002	0.0003	0.001	0.001	<0.001	<0.00005	0.001	0.002	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2
Maximum Detect					0.51	0.06	<0.5	13400	0.025	0.0003	0.001	0.003	<0.001	<0.0001	0.027	0.096	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Average Concentration					0.11	0.02		5364	0.01	7.8E-05	0.00061	0.0014	0.0005	0.000047	0.0053	0.014	0.23	0.23	0.23	0.25	0.23	0.25	0.23
Standard Deviation					0.17	0.02		4140	0.011	8.3E-05	0.00022	0.00089	0	8.3E-06	0.0085	0.031	0.05	0.05	0.05	0	0.05	0	0.05



Organochlorine Pesticides

EQL

				Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Benzo(b,j,k)fluoranthene	Acenaphthene	Acenaphthylene
				µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.5	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.5	µg/L 0.2	µg/L 0.2	µg/L 0.2	µg/L 0.2	mg/L	µg/L 1	µg/L 1
ANZECC (2000) TV - Freshwater (95%)							0.01						0.02			0.2	0.09					
NEPM (1999) GIL - Freshwater							0.006						0.01			0.2	0.01					
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																						
Recreational water quality and aesthetics							3		1				1			10	3					
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number																		
EW1	EW1		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
EW2	EW2		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
EW3	EW3		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
MW2A	MW2A		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	4.8	<1
MW3A	MW3A		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
MW4	MW4		14/08/2019	ES1925853	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
MW7	MW7		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	<1	<1
Intra - Lab Duplicate																						
DO1	MW2A		8/08/2019	ES1925172	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	4.8	<1
Inter - Lab Duplicate																						
T01	T01		8/08/2019	223481	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.002	8	<1
Statistical Summary																						
Minimum Concentration					<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	<0.002	4.8	<1
Maximum Detect					<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.002	8	<1
Average Concentration					0.23	0.23	0.23	0.9	0.25	0.23	0.23	0.23	0.23	0.23	0.25	0.23	0.23	0.23	0.9		2.3	0.5
Standard Deviation					0.05	0.05	0.05	0.3	0	0.05	0.05	0.05	0.05	0.05	0	0.05	0.05	0.05	0.3		2.8	0



PAH																							
				Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(k,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Napthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of positives)	PAHs (Vic EPA List)	Arochlor 1016	
EQL				µg/L 1	µg/L 1	µg/L 0.5	mg/L 0.001	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	µg/L 1	mg/L	mg/L 0.0005	mg/L	µg/L 0.5	µg/L	
ANZECC (2000) TV - Freshwater (95%)															16								
NEPM (1999) GIL - Freshwater															16								
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m															NL								
Recreational water quality and aesthetics						0.01																	
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number																			
EW1	EW1		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
EW2	EW2		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
EW3	EW3		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
MW2A	MW2A		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	3.7	<1	<1 - 10	<1	<1	-	<0.0005	-	8.5	-	
MW3A	MW3A		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
MW4	MW4		14/08/2019	ES1925853	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
MW7	MW7		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.0005	-	<0.5	-	
Intra - Lab Duplicate																							
DO1	MW2A		8/08/2019	ES1925172	<1	<1	<0.5	<0.001	<1	<1	<1	<1	4.2	<1	<1 - 11	<1	<1	-	<0.0005	-	9	-	
Inter - Lab Duplicate																							
T01	T01		8/08/2019	223481	<1	<1	<1	-	<1	-	<1	<1	7	<1	7 - 11	5	<1	<0.005	-	0.027	-	<2	
Statistical Summary																							
Minimum Concentration					<1	<1	<0.5	<0.001	<1	<1	<1	<1	3.7	<1	7	5	<1	<0.005	<0.0005	0.027	8.5	<2	
Maximum Detect					<1	<1	<1	<0.001	<1	<1	<1	<1	7	<1	11	5	<1	<0.005	<0.0005	0.027	9	<2	
Average Concentration					0.5	0.5	0.28	0.0005	0.5	0.5	0.5	0.5	2	0.5	2.6	1	0.5		0.00025		2.4		
Standard Deviation					0	0	0.083	0	0	0	0	0	2.4	0	3.2	1.5	0		0		3.9		



PCBs

EQL

ANZECC (2000) TV - Freshwater (95%)							0.6		0.03		
NEPM (1999) GIL - Freshwater							0.3		0.01		
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m											
Recreational water quality and aesthetics											
Field_ID	LocCode	WellCode	Sampled_Date-Time	Lab_Report_Number							
EW1	EW1		8/08/2019	ES1925172	-	-	-	-	-	-	<1
EW2	EW2		8/08/2019	ES1925172	-	-	-	-	-	-	<1
EW3	EW3		8/08/2019	ES1925172	-	-	-	-	-	-	<1
MW2A	MW2A		8/08/2019	ES1925172	-	-	-	-	-	-	<1
MW3A	MW3A		8/08/2019	ES1925172	-	-	-	-	-	-	<1
MW4	MW4		14/08/2019	ES1925853	-	-	-	-	-	-	<1
MW7	MW7		8/08/2019	ES1925172	-	-	-	-	-	-	<1
Intra - Lab Duplicate											
DO1	MW2A		8/08/2019	ES1925172	-	-	-	-	-	-	<1
Inter - Lab Duplicate											
T01	T01		8/08/2019	223481	<2	<2	<2	<2	<2	<2	-
Statistical Summary											
Minimum Concentration					<2	<2	<2	<2	<2	<2	<1
Maximum Detect					<2	<2	<2	<2	<2	<2	<1
Average Concentration											0.5
Standard Deviation											0

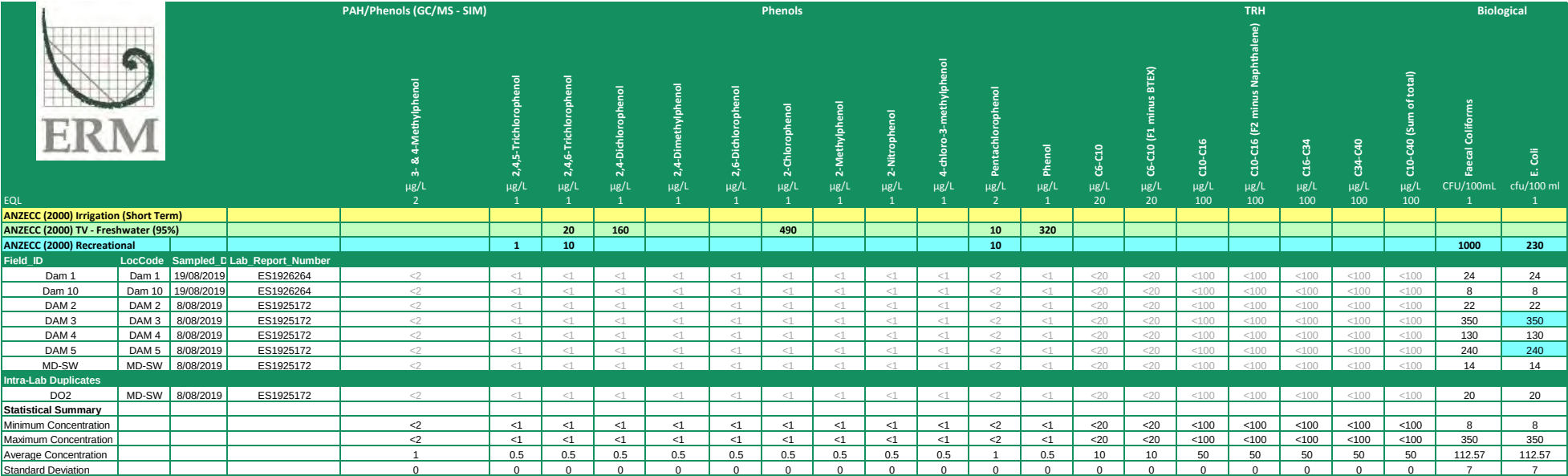
Arochlor 1221
µg/L
Arochlor 1232
µg/L
Arochlor 1242
µg/L
Arochlor 1248
µg/L
Arochlor 1254
µg/L
Arochlor 1260
µg/L
PCBs (Sum of total)
µg/L



				TRH										BTEX							Halogenated Benzenes									
				C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Napthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Hexachlorobenzene	Arsenic	Cadmium	Chromium (II+VI)	Copper	Lead	Manganese	Mercury	Nickel				
EQL				mg/kg 3	mg/kg 3	mg/kg 3	mg/kg 3	mg/kg 3	mg/kg 5	mg/kg 3	mg/kg 0.2	mg/kg 0.2	mg/kg 0.2	mg/kg 0.2	mg/kg 0.2	mg/kg 0.5	mg/kg 0.2	mg/kg 0.05	mg/kg 1	mg/kg 0.1	mg/kg 1	mg/kg 1	mg/kg 1	mg/kg 10	mg/kg 0.01	mg/kg 1				
NEPM (1999) EIL - Commercial/Industrial																			160				1800							
NEPM (1999) ESL - Commercial/Industrial (fine)				215		170		2500	6600		95	135	185			95														
NEPM (1999) HIL D - Commercial/Industrial																		80	3000	900		240000	1500		730	6000				
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m				310		NL		NL	NL		4	NL	NL			NL														
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m				480		NL		NL	NL		6	NL	NL			NL														
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m				NL		NL		NL	NL		9	NL	NL			NL														
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+				NL		NL		NL	NL		NL	NL	NL			NL														
NEPM (1999) Management Limits - Commercial/Industrial (fine)				800		1000		5000	10000																					
NEPM (1999) Management Limits - Urban residential & open space				800		1000		3500	10000																					
Field_ID	Sampled_Date/Time	Sample_Type	Lab_Report_Number	<3	<3	<3	<3	<3	<5	<3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	6 - 6.64	<1 - 0.2	9 - 11.2	31.7 - 36	13.7 - 16	342	<0.03	16 - 17.3				
D1	8/08/2019	Normal	ES1925172	<3	<3	<3	<3	<45	<32	<77	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	7 - 7.21	<0.1	15 - 18.3	21.4 - 25	12.8 - 15	225	<0.01	5 - 5.7				
D2	8/08/2019	Normal	ES1925172	<3	<3	<27	<27	<591	<456	<1070	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	6.84 - 7	<0.1	11 - 13.4	49 - 56	20.7 - 24	649	<0.05	21 - 23				
D3	8/08/2019	Normal	ES1925172	<3	<3	<11	<11	<142	<86	<239	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	5.24 - 6	<0.1	13.3 - 14	37.7 - 43	16.7 - 20	6780	<0.05	15 - 17.1				
D4	8/08/2019	Normal	ES1925172	<3	<3	<8	<8	300	196	504	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	<5 - 5.13	<1 - 0.1	7 - 8.3	41.9 - 49	17.6 - 20	669	<0.06	14 - 15.3				
D5	8/08/2019	Normal	ES1925172	<3	<3	<16	<16	263	184	463	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	7 - 7.32	<0.1	12 - 13	42 - 48	17.6 - 21	3460	<0.05	18 - 19.8				
MD1	8/08/2019	Normal	ES1925172	<3	<3	<3	<3	<53	<23	<76	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	<5 - 5.57	<0.1	<2 - 11.5	9 - 24.7	<5 - 10.4	64	<0.01	<2 - 10				
MD-Runoff	8/08/2019	Normal	ES1925172	<10 - 4	<10 - 4	<9	<9	<260	<125	<394	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	6 - 6.13	<0.1	12 - 14	27.6 - 37	11.9 - 14	394	<0.02	16 - 17.4				
Intra-Lab Duplicates																														
DO3	8/08/2019	Field_D	ES1925172	<3	<3	<3	<3	<60	<28	<88	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	<5 - 4.56	<0.1	9 - 10.6	22.2 - 25	7.2 - 8	38	<0.02	8 - 9.3				
Statistical Summary																														
Minimum Detect				<3	<3	<3	<3	263	184	463	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	5.24	<0.1	7	9	7.2	38	<0.01	5				
Maximum Detect				4	4	<27	<27	300	196	504	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.05	7.32	0.2	18.3	56	24	6780	<0.06	23				
Average Concentration				1.8	1.8	4.6	4.6	127	84	216	0.1	0.1	0.1	0.1	0.1	0.25	0.1	0.025	5.6	0.11	11	35	15	1402	0.017	14				
Standard Deviation				1	1	4	4	126	91	222	0	0	0	0	0	0	0	0	1.5	0.12	3.2	12	5.4	2276	0.0097	5.9				

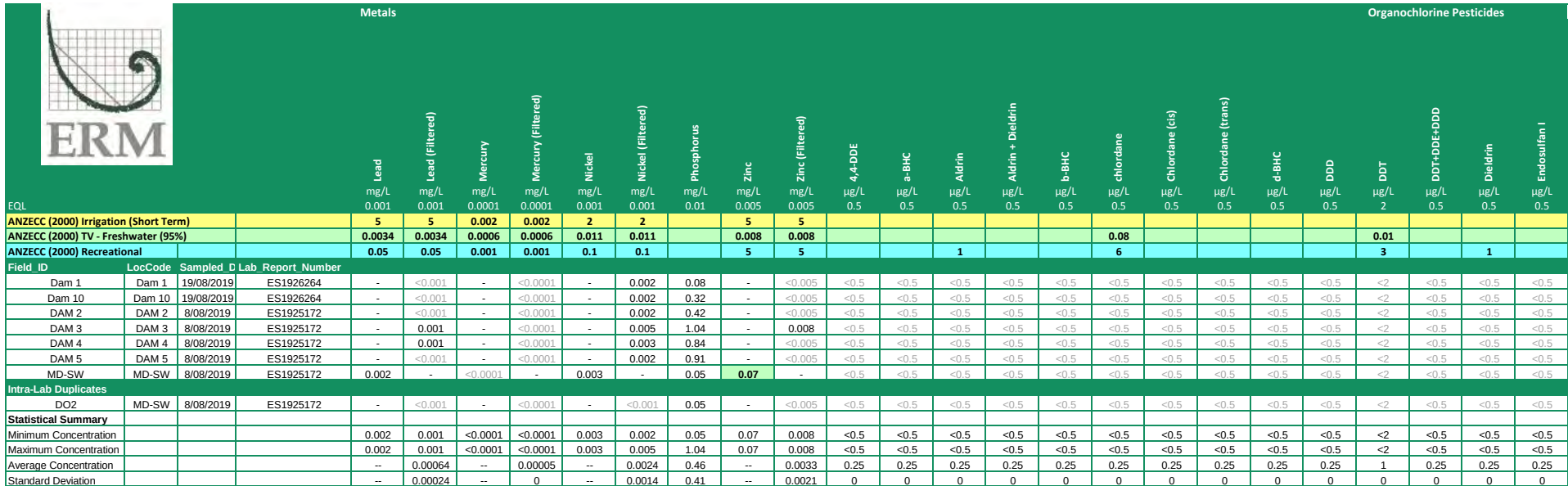
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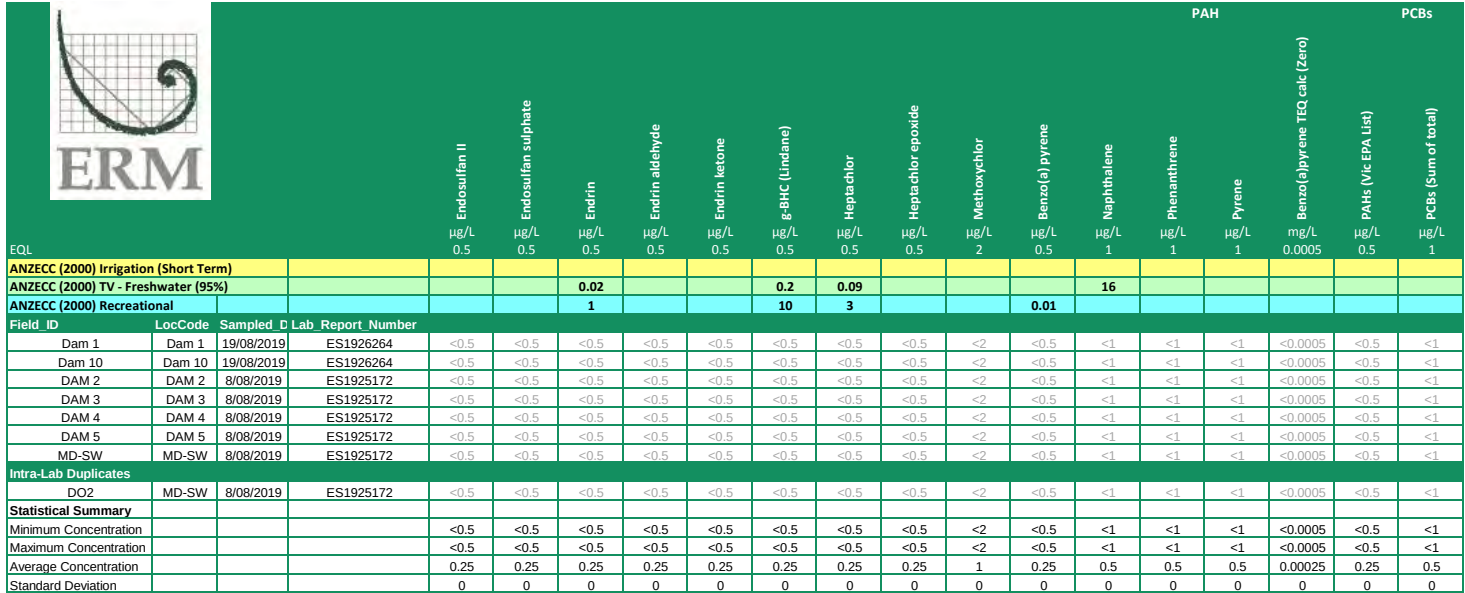
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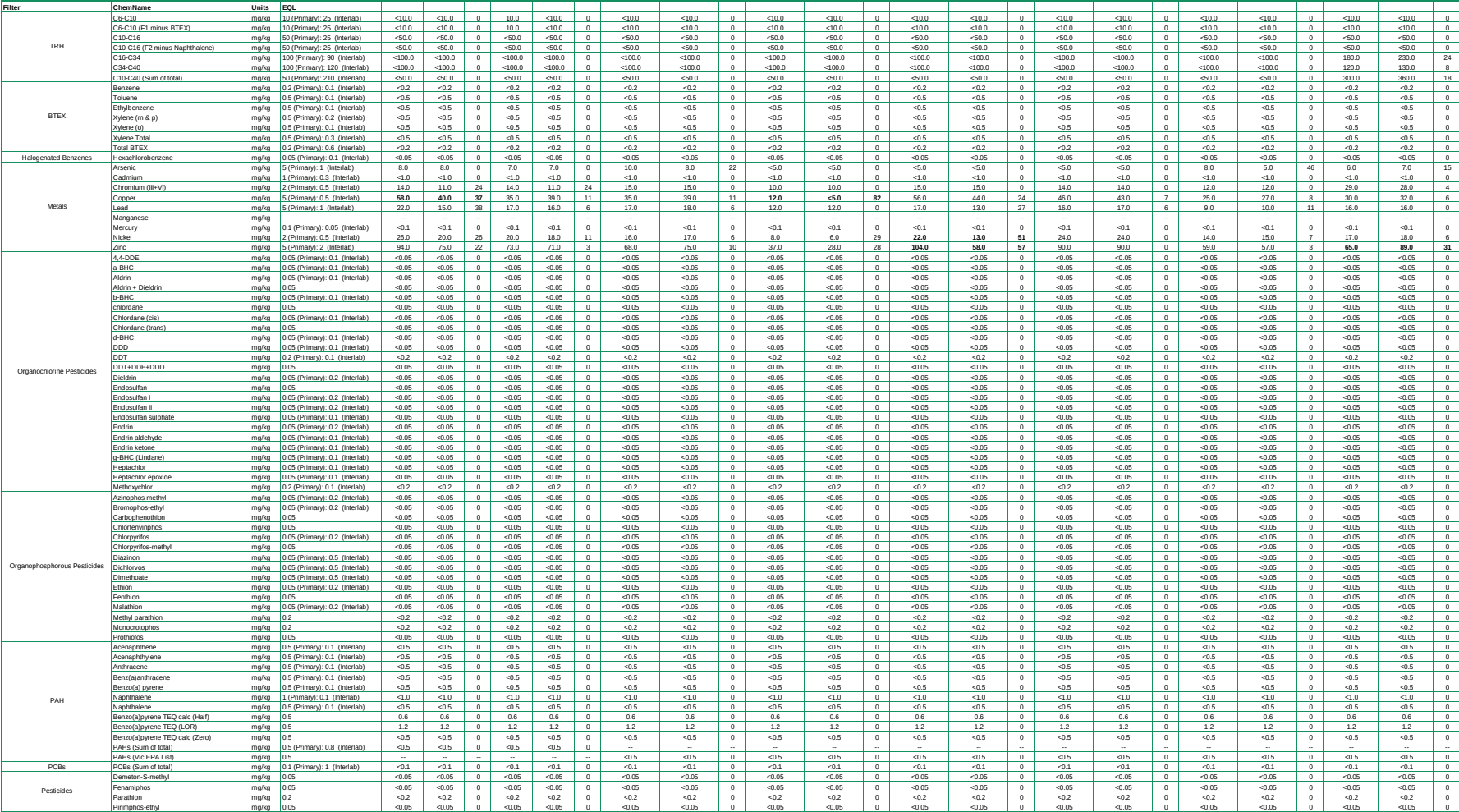




				BTEX							Halogen			Inorganics												
				Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Hexachlorobenzene	Nitrite + Nitrate as N	BOD	Cyanide Total	Kjeldahl Nitrogen Total	Nitrogen (Total)	Reactive Phosphorus as P	TSS	Arsenic	Arsenic (Filtered)	Cadmium	Cadmium (Filtered)	Chromium (III+VI)	Chromium (III+VI) (Filtered)	Copper	Copper (Filtered)
EQL				µg/L 1	µg/L 2	µg/L 2	µg/L 2	µg/L 2	µg/L 2	µg/L 1	µg/L 0.5	mg/L 0.01	mg/L 2	mg/L 0.004	mg/L 0.1	µg/L 100	mg/L 0.01	mg/L 5	mg/L 0.001	mg/L 0.001	mg/L 0.0001	mg/L 0.0001	mg/L 0.001	mg/L 0.001	mg/L 0.001	mg/L 0.001
ANZECC (2000) Irrigation (Short Term)																			2	2	0.05	0.05	1	1	5	5
ANZECC (2000) TV - Freshwater (95%)				950					350					0.007							0.0002	0.0002			0.0014	0.0014
ANZECC (2000) Recreational				10										0.1					0.05	0.05	0.005	0.005	0.05	0.05	1	1
Field ID	LocCode	Sampled D	Lab Report Number																							
Dam 1	Dam 1	19/08/2019	ES1926264	<1	<2	<2	<2	<2	<2	<1	<0.5	0.15	<2	<0.004	0.5	600	<0.01	53	-	<0.001	-	<0.0001	-	0.001	-	0.003
Dam 10	Dam 10	19/08/2019	ES1926264	<1	<2	<2	<2	<2	<2	<1	<0.5	0.09	<2	<0.004	1.5	1600	<0.01	117	-	<0.001	-	<0.0001	-	<0.001	-	0.004
DAM 2	DAM 2	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.18	2	<0.004	1.5	1700	<0.01	216	-	<0.001	-	<0.0001	-	<0.001	-	0.005
DAM 3	DAM 3	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.08	2	<0.004	3.3	3400	<0.01	805	-	0.002	-	<0.0001	-	<0.001	-	0.01
DAM 4	DAM 4	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.05	2	<0.004	2.7	2800	<0.01	576	-	0.002	-	<0.0001	-	<0.001	-	0.014
DAM 5	DAM 5	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.06	2	<0.004	2.5	2600	<0.01	623	-	0.001	-	<0.0001	-	0.001	-	0.006
MD-SW	MD-SW	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.3	2	<0.004	0.4	700	<0.01	74	0.001	-	0.0002	-	0.004	-	0.006	-
Intra-Lab Duplicates																										
DO2	MD-SW	8/08/2019	ES1925172	<1	<2	<2	<2	<2	<2	<1	<0.5	0.32	2	<0.004	0.5	800	<0.01	46	-	<0.001	-	<0.0001	-	<0.001	-	<0.001
Statistical Summary																										
Minimum Concentration				<1	<2	<2	<2	<2	<2	<1	<0.5	0.05	2	<0.004	0.4	600	<0.01	46	0.001	0.001	0.0002	<0.0001	0.004	0.001	0.006	0.003
Maximum Concentration				<1	<2	<2	<2	<2	<2	<1	<0.5	0.32	2	<0.004	3.3	3400	<0.01	805	0.001	0.002	0.0002	<0.0001	0.004	0.001	0.006	0.014
Average Concentration				0.5	1	1	1	1	1	0.5	0.25	0.15	1.8	0.002	1.6	1775	0.005	314	--	0.001	--	0.00005	--	0.00064	--	0.0061
Standard Deviation				0	0	0	0	0	0	0	0	0.11	0.46	0	1.1	1062	0	305	--	0.00071	--	0	--	0.00024	--	0.0045







[illegible]

 Lab Report Number Field ID Sampled Date/Time RPD			
Filter	ChemName	Units	EQI
TRH	C6-C10	mg/kg	10 (Primary); 25 (Interlab)
	C6-C10 (F1 minus BTEX)	mg/kg	10 (Primary); 25 (Interlab)
	C10-C16	mg/kg	50 (Primary); 25 (Interlab)
	C10-C16 (F2 minus Naphthalene)	mg/kg	50 (Primary); 25 (Interlab)
	C16-C24	mg/kg	100 (Primary); 50 (Interlab)
	C34-C40	mg/kg	100 (Primary); 120 (Interlab)
	C10-C40 (Sum of total)	mg/kg	50 (Primary); 210 (Interlab)
BTEX	Benzene	mg/kg	0.2 (Primary); 0.1 (Interlab)
	Toluene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Ethylbenzene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Xylene (m & p)	mg/kg	0.5 (Primary); 0.2 (Interlab)
	Xylene (o)	mg/kg	0.5 (Primary); 0.1 (Interlab)
Halogenated Benzenes	Xylene Total	mg/kg	0.5 (Primary); 0.3 (Interlab)
	Total BTEX	mg/kg	0.2 (Primary); 0.6 (Interlab)
Metals	Hexachlorobenzene	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Arsenic	mg/kg	5 (Primary); 1 (Interlab)
	Cadmium	mg/kg	1 (Primary); 0.3 (Interlab)
	Chromium (B+V)	mg/kg	2 (Primary); 0.5 (Interlab)
	Copper	mg/kg	5 (Primary); 0.5 (Interlab)
	Lead	mg/kg	5 (Primary); 1 (Interlab)
	Manganese	mg/kg	--
	Mercury	mg/kg	0.1 (Primary); 0.05 (Interlab)
	Nickel	mg/kg	2 (Primary); 0.5 (Interlab)
	Zinc	mg/kg	5 (Primary); 2 (Interlab)
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05 (Primary); 0.1 (Interlab)
	a-BHC	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Aldrin	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Aldrin + Dieldrin	mg/kg	0.05
	b-BHC	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Chlordane	mg/kg	0.05
	Chlordane (cis)	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Chlordane (trans)	mg/kg	0.05
	d-BHC	mg/kg	0.05 (Primary); 0.1 (Interlab)
	DDD	mg/kg	0.05 (Primary); 0.1 (Interlab)
	DDT	mg/kg	0.2 (Primary); 0.1 (Interlab)
	DDT+DDE+DDD	mg/kg	0.05
	Dieldrin	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Endosulfan	mg/kg	0.05
	Endosulfan I	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Endosulfan II	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Endosulfan sulphate	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Endrin	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Endrin aldehyde	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Endrin ketone	mg/kg	0.05 (Primary); 0.1 (Interlab)
	g-BHC (Lindane)	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Heptachlor	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Heptachlor epoxide	mg/kg	0.05 (Primary); 0.1 (Interlab)
	Methoxychlor	mg/kg	0.2 (Primary); 0.1 (Interlab)
Organophosphorous Pesticides	Azinophos methyl	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Bromophos-ethyl	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Carbophenothion	mg/kg	0.05
	Chlorfenvinphos	mg/kg	0.05
	Chlorpyrifos	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Chlorpyrifos-methyl	mg/kg	0.05
	Diazinon	mg/kg	0.05 (Primary); 0.5 (Interlab)
	Dichlorvos	mg/kg	0.05 (Primary); 0.5 (Interlab)
	Dimethoate	mg/kg	0.05 (Primary); 0.5 (Interlab)
	Ethion	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Fenitrothion	mg/kg	0.05
	Malathion	mg/kg	0.05 (Primary); 0.2 (Interlab)
	Methyl parathion	mg/kg	0.2
	Monocrotophos	mg/kg	0.2
	Prothiofos	mg/kg	0.05
PAH	Acenaphthene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Acenaphthylene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Anthracene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Benz(a)anthracene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Benzo(a) pyrene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Naphthalene	mg/kg	1 (Primary); 0.1 (Interlab)
	Naphthalene	mg/kg	0.5 (Primary); 0.1 (Interlab)
	Benzo(a)pyrene TEQ calc (Haf)	mg/kg	0.5
	Benzo(a)pyrene TEQ (LOR)	mg/kg	0.5
	Benzo(a)pyrene TEQ calc (Zero)	mg/kg	0.5
	PAHs (Sum of total)	mg/kg	0.5 (Primary); 0.8 (Interlab)
PCBs	PAHs (Vic EPA List)	mg/kg	0.5
	PCBs (Sum of total)	mg/kg	0.1 (Primary); 1 (Interlab)
Pesticides	Demeton-S-methyl	mg/kg	0.05
	Fenamiphos	mg/kg	0.05
	Parathion	mg/kg	0.2
	Pirimphos-ethyl	mg/kg	0.05

			Lab Report Number		Field ID		Sampled Date/Time		ES1029522		SE194902		RPD		ES1029523		SE194902		RPD		ES1029524		SE195908		RPD		ES1029525		SE195908		RPD		ES1029526		SE195908		RPD		ES1029527		SE195908		RPD		ES1029528		SE195908		RPD		ES1029529		SE195908		RPD		ES1029530		SE195908		RPD		ES1029531		SE195908		RPD		ES1029532		SE195908		RPD		ES1029533		SE195908		RPD		ES1029534		SE195908		RPD		ES1029535		SE195908		RPD		ES1029536		SE195908		RPD		ES1029537		SE195908		RPD		ES1029538		SE195908		RPD		ES1029539		SE195908		RPD		ES1029540		SE195908		RPD		ES1029541		SE195908		RPD		ES1029542		SE195908		RPD		ES1029543		SE195908		RPD		ES1029544		SE195908		RPD		ES1029545		SE195908		RPD		ES1029546		SE195908		RPD		ES1029547		SE195908		RPD		ES1029548		SE195908		RPD		ES1029549		SE195908		RPD		ES1029550		SE195908		RPD		ES1029551		SE195908		RPD		ES1029552		SE195908		RPD		ES1029553		SE195908		RPD		ES1029554		SE195908		RPD		ES1029555		SE195908		RPD		ES1029556		SE195908		RPD		ES1029557		SE195908		RPD		ES1029558		SE195908		RPD		ES1029559		SE195908		RPD		ES1029560		SE195908		RPD		ES1029561		SE195908		RPD		ES1029562		SE195908		RPD		ES1029563		SE195908		RPD		ES1029564		SE195908		RPD		ES1029565		SE195908		RPD		ES1029566		SE195908		RPD		ES1029567		SE195908		RPD		ES1029568		SE195908		RPD		ES1029569		SE195908		RPD		ES1029570		SE195908		RPD		ES1029571		SE195908		RPD		ES1029572		SE195908		RPD		ES1029573		SE195908		RPD		ES1029574		SE195908		RPD		ES1029575		SE195908		RPD		ES1029576		SE195908		RPD		ES1029577		SE195908		RPD		ES1029578		SE195908		RPD		ES1029579		SE195908		RPD		ES1029580		SE195908		RPD		ES1029581		SE195908		RPD		ES1029582		SE195908		RPD		ES1029583		SE195908		RPD		ES1029584		SE195908		RPD		ES1029585		SE195908		RPD		ES1029586		SE195908		RPD		ES1029587		SE195908		RPD		ES1029588		SE195908		RPD		ES1029589		SE195908		RPD		ES1029590		SE195908		RPD		ES1029591		SE195908		RPD		ES1029592		SE195908		RPD		ES1029593		SE195908		RPD		ES1029594		SE195908		RPD		ES1029595		SE195908		RPD		ES1029596		SE195908		RPD		ES1029597		SE195908		RPD		ES1029598		SE195908		RPD		ES1029599		SE195908		RPD		ES1029600		SE195908		RPD		ES1029601		SE195908		RPD		ES1029602		SE195908		RPD		ES1029603		SE195908		RPD		ES1029604		SE195908		RPD		ES1029605		SE195908		RPD		ES1029606		SE195908		RPD		ES1029607		SE195908		RPD		ES1029608		SE195908		RPD		ES1029609		SE195908		RPD		ES1029610		SE195908		RPD		ES1029611		SE195908		RPD		ES1029612		SE195908		RPD		ES1029613		SE195908		RPD		ES1029614		SE195908		RPD		ES1029615		SE195908		RPD		ES1029616		SE195908		RPD		ES1029617		SE195908		RPD		ES1029618		SE195908		RPD		ES1029619		SE195908		RPD		ES1029620		SE195908		RPD		ES1029621		SE195908		RPD		ES1029622		SE195908		RPD		ES1029623		SE195908		RPD		ES1029624		SE195908		RPD		ES1029625		SE195908		RPD		ES1029626		SE195908		RPD		ES1029627		SE195908		RPD		ES1029628		SE195908		RPD		ES1029629		SE195908		RPD		ES1029630		SE195908		RPD		ES1029631		SE195908		RPD		ES1029632		SE195908		RPD		ES1029633		SE195908		RPD		ES1029634		SE195908		RPD		ES1029635		SE195908		RPD		ES1029636		SE195908		RPD		ES1029637		SE195908		RPD		ES1029638		SE195908		RPD		ES1029639		SE195908		RPD		ES1029640		SE195908		RPD		ES1029641		SE195908		RPD		ES1029642		SE195908		RPD		ES1029643		SE195908		RPD		ES1029644		SE195908		RPD		ES1029645		SE195908		RPD		ES1029646		SE195908		RPD		ES1029647		SE195908		RPD		ES1029648		SE195908		RPD		ES1029649		SE195908		RPD		ES1029650		SE195908		RPD		ES1029651		SE195908		RPD		ES1029652		SE195908		RPD		ES1029653		SE195908		RPD		ES1029654		SE195908		RPD		ES1029655		SE195908		RPD		ES1029656		SE195908		RPD		ES1029657		SE195908		RPD		ES1029658		SE195908		RPD		ES1029659		SE195908		RPD		ES1029660		SE195908		RPD		ES1029661		SE195908		RPD		ES1029662		SE195908		RPD		ES1029663		SE195908		RPD		ES1029664		SE195908		RPD		ES1029665		SE195908		RPD		ES1029666		SE195908		RPD		ES1029667		SE195908		RPD		ES1029668		SE195908		RPD		ES1029669		SE195908		RPD		ES1029670		SE195908		RPD		ES1029671		SE195908		RPD		ES1029672		SE195908		RPD		ES1029673		SE195908		RPD		ES1029674		SE195908		RPD		ES1029675		SE195908		RPD		ES1029676		SE195908		RPD		ES1029677		SE195908		RPD		ES1029678		SE195908		RPD		ES1029679		SE195908		RPD		ES1029680		SE195908		RPD		ES1029681		SE195908		RPD		ES1029682		SE195908		RPD		ES1029683		SE195908		RPD		ES1029684		SE195908		RPD		ES1029685		SE195908		RPD		ES1029686		SE195908		RPD		ES1029687		SE195908		RPD		ES1029688		SE195908		RPD		ES1029689		SE195908		RPD		ES1029690		SE195908		RPD		ES1029691		SE195908		RPD		ES1029692		SE195908		RPD		ES1029693		SE195908		RPD		ES1029694		SE195908		RPD		ES1029695		SE195908		RPD		ES1029696		SE195908		RPD		ES1029697		SE195908		RPD		ES1029698		SE195908		RPD		ES1029699		SE195908		RPD		ES1029700		SE195908		RPD		ES1029701		SE195908		RPD		ES1029702		SE195908		RPD		ES1029703		SE195908		RPD		ES1029704		SE195908		RPD		ES1029705		SE195908		RPD		ES1029706		SE195908		RPD		ES1029707		SE195908		RPD		ES1029708		SE195908		RPD		ES1029709		SE195908		RPD		ES1029710		SE195908		RPD		ES1029711		SE195908		RPD		ES1029712		SE195908		RPD		ES1029713		SE195908		RP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[illegible]

ERM Lab Report Number Field ID Sampled Date/Time ES1925172 MD-SW 8/08/2019 ES1925172 DO2 8/08/2019 RPD ES1925172 MW2A 8/08/2019 ES1925172 DO1 8/08/2019 RPD ES1925172 MW2A 8/08/2019 223481 T01 8/08/2019 RPD ES1925172 MD-SW 8/08/2019 223481 T02 8/08/2019 RPD																	
Filter	ChemName	Units	EQL														
PAH/Phenols (GC/MS - SIM)	Un-ionized Hydrogen Sulfide	mg/l	0.01														
	3- & 4-Methylphenol	µg/L	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0			<2.0				
	2,4,5-Trichlorophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2,4,6-Trichlorophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2,4-Dichlorophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2,4-Dimethylphenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2,6-Dichlorophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2-Chlorophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2-Methylphenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	2-Nitrophenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
Phenols	4-chloro-3-methylphenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	Pentachlorophenol	µg/L	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0			<2.0				
	Phenol	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0				
	C6-C10	µg/L	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0		<10.0	0	<20.0	<10.0	0	
	C6-C10 (F1 minus BTEX)	µg/L	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0		<10.0	0	<20.0	<10.0	0	
	C10-C16	µg/L	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	1050.0	910.0	14	1050.0		1400.0	29	<100.0	<50.0	0	
	C10-C16 (F2 minus Naphthalene)	µg/L	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	1040.0	900.0	14	1040.0		1400.0	30	<100.0	<50.0	0	
	C16-C34	µg/L	100	<100.0	<100.0	0	2140.0	1940.0	10	2140.0		2600.0	19	<100.0	<100.0	0	
	C34-C40	µg/L	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0		<100.0	0	<100.0	<100.0	0	
	C10-C40 (Sum of total)	µg/L	100	<100.0	<100.0	0	3190.0	2850.0	11	3190.0		<100.0	0	<100.0	<100.0	0	
Biological	Faecal Coliforms	CFU/100mL	1	14.0	20.0	35							14.0				
	E. Coli	CFU/100 mL	1	14.0	20.0	35							14.0	20.0	35		
BTEX	Benzene	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0		<1.0	0	<1.0	<1.0	0	
	Toluene	µg/L	2 (Primary): 1 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<1.0	0	<2.0	<1.0	0	
	Ethylbenzene	µg/L	2 (Primary): 1 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<1.0	0	<2.0	<1.0	0	
	Xylene (m & p)	µg/L	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<2.0	0	<2.0	<2.0	0	
	Xylene (o)	µg/L	2 (Primary): 1 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<1.0	0	<2.0	<1.0	0	
	Xylene Total	µg/L	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<2.0	0	<2.0	<2.0	0	
	Total BTEX	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0		<1.0	0	<1.0	<1.0	0	
Halogenated Benzenes	Hexachlorobenzene	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Nitrite + Nitrate as N	mg/l	0.01	0.3	0.32	6	0.01	0.04	120	0.01			0.3				
Inorganics	Ammonia as N	mg/l	0.01														
	BOD	mg/l	2 (Primary): 5 (Interlab)	2.0	2.0	0								2.0	17.0	158	
	Chloride	mg/l	1				142.0	141.0	1	142.0		110.0	25				
	Cyanide Total	mg/l	0.004	<0.004	<0.004	0	<0.004	<0.004	0	<0.004		<0.004	0	<0.004	<0.004	0	
	Kjeldahl Nitrogen Total	mg/l	0.1	0.4	0.5	22							0.4				
	Nitrate (as N)	mg/l	0.01 (Primary): 0.005 (Interlab)				0.01	0.04	120	0.01		<0.005	67				
	Nitrite (as N)	mg/l	0.01				<0.01	<0.01	0	<0.01							
	Nitrogen (Total)	µg/l	100	700.0	800.0	13							700.0	400.0	55		
	Reactive Phosphorus as P	mg/l	0.01	<0.01	<0.01	0							<0.01				
	TDS	mg/l	10 (Primary): 5 (Interlab)				1120.0	1120.0	0	1120.0		1100.0	2		74.0	62.0	18
	TSS	mg/l	5	74.0	46.0	47											
Metals	Arsenic (Filtered)	mg/l	0.001				0.023	0.025	8	0.023		0.022	4				
	Cadmium (Filtered)	mg/l	0.0001				<0.0001	<0.0001	0	<0.0001		<0.0001	0				
	Chromium (III+VI) (Filtered)	mg/l	0.001				<0.001	0.001	0	<0.001		0.001	0				
	Copper (Filtered)	mg/l	0.001				0.001	0.002	67	0.001		<0.001	0				
	Lead (Filtered)	mg/l	0.001				<0.001	<0.001	0	<0.001		<0.001	0				
	Mercury (Filtered)	mg/l	0.0001 (Primary): 0.00005 (Interlab)				<0.0001	<0.0001	0	<0.0001		<0.0001	0				
	Nickel (Filtered)	mg/l	0.001				0.002	0.003	40	0.002		0.002	0				
	Phosphorus	mg/l	0.01 (Primary): 0.05 (Interlab)	0.05	0.05	0								0.05	<0.05	0	
	Zinc (Filtered)	mg/l	0.005 (Primary): 0.001 (Interlab)				<0.005	0.01	67	<0.005		0.002	0				
	4,4-DDE	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
Organochlorine Pesticides	α-BHC	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	β-BHC	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Aldrin	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Aldrin + Dieldrin	µg/L	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.5	0	<0.5	<0.5	0	
	β-BHC	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	chlordane	µg/L	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.5	0	<0.5	<0.5	0	
	Chlordane (cis)	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Chlordane (trans)	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	β-BHC	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	DDD	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	DDT	µg/L	2 (Primary): 0.2 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<2.0	0	<2.0	<2.0	0	
	DDT+DDE+DDD	µg/L	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.5	0	<0.5	<0.5	0	
	Dieldrin	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endosulfan I	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endosulfan II	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endosulfan sulphate	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endrin	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endrin aldehyde	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Endrin ketone	µg/L	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.5	0	<0.5	<0.5	0	
	γ-BHC (Lindane)	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Heptachlor	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Heptachlor epoxide	µg/L	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5		<0.2	0	<0.5	<0.2	0	
	Methoxychlor	µg/L	2 (Primary): 0.2 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0	<2.0		<0.2	0	<2.0	<0.2	0	
	Acenaphthene	µg/L	1	<1.0	<1.0	0	4.8	4.8	0	4.8		8.0	50	<1.0	<1.0	0	
	Acenaphthylene	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0		<1.0	0	<1.0	<1.0	0	
	Anthracene	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0		<1.0	0	<1.0	<1.0	0	
	Benzo(a)anthracene	µg/L	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0		<1.0	0	<1.0	<1.0	0	
	Benzo(a) pyrene	µg/L	<0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	&lt							

Appendix H:
Landfill Gas Risk Assessment Location Plan
(ERM, August 2021)



Legend

- Site Boundary
- Site Areas
- ⊕ Gas Monitoring Location

Data Source:
Nearmap Imagery October 2020

Site Layout

Drawing No: 0565895m_LFGRA_G002_R00.mxd

Date: 17/12/2020

Drawn By: KV

Coordinate System: GDA 1994 MGA Zone 56

0 50 100 150m

Drawing Size: A4

Reviewed By: RJ



Horsley Park - LFGRA

335 Burley Road, Horsley Park, NSW 2175

Client: ESR

This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.

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Appendix I:
Landfill Gas Assessment Result Tables (ERM, August 2021)



Location	Date	Flow (L/hr)	Barometric Pressure	SWL (mbtoc)	pump duration (seconds)	CH4 Criteria	CO2 Criteria	Peak CH4	Peak CO2	Min O2	Stabilised CH4	Stabilised CO2	Stabilised O2	Balance	H2S	CO	Relative Pressure	Ambient CO2 % v/v	Ambient Methane % v/v	Comments
GM201	11/09/20	0.0	1024	4.046	60	1.0	1.5	0.0	6.4	15.7	0.0	6.4	15.7	77.9	0	0	0.31	0.00	0.1	
GM201	29/09/20	0.4	1015	4.259	60	1.0	1.5	0.0	4.7	19.4	0.0	4.6	19.4	76.0	0	2	0.29	0.00	0.0	
GM201	30/10/20	0.0	1002	3.074	60	1.0	1.5	0.0	2.6	14.0	0.0	2.5	14.0	83.5	0	0	19.92	0.00	0.0	
GM201	1/12/20	-0.1	1003	3.818	60	1.0	1.5	0.0	13.5	14.3	0.0	13.5	14.4	72.2	2	1	12.11	0.00	0.1	
GM202	11/09/20	0.1	1024	--	60	1.0	1.5	0.0	2.6	19.9	0.0	2.6	19.9	77.5	0	0	0.03	0.00	0.1	Dry at 5m
GM202	29/09/20	0.0	1017	--	60	1.0	1.5	0.0	2.9	19.5	0.0	2.9	19.5	77.6	0	2	0.03	0.00	0.0	Dry
GM202	30/10/20	-0.1	1002	--	60	1.0	1.5	0.0	5.0	19.6	0.0	4.9	19.6	75.4	0	0	32.78	0.00	0.0	
GM202	1/12/20	-0.2	1003	--	63	1.0	1.5	0.1	16.1	10.3	0.1	16.0	10.4	73.5	1	1	6.66	0.00	0.0	
GM203	11/09/20	0.2	1024	--	60	1.0	1.5	0.0	3.7	16.8	0.0	3.7	16.8	79.5	0	1	0.00	0.00	0.1	dry at 5.139m
GM203	29/09/20	0.0	1016	--	60	1.0	1.5	0.0	3.5	17.0	0.0	3.5	17.0	79.4	0	2	0.03	0.00	0.0	Dry
GM203	30/10/20	-0.1	1002	4.7	60	1.0	1.5	0.0	6.4	14.4	0.0	6.4	14.4	79.3	0	0	21.54	0.00	0.0	
GM203	1/12/20	-0.1	1003	4.9	63	1.0	1.5	0.0	4.4	15.9	0.0	4.4	16.0	79.7	1	0	15.09	0.00	0.0	
GM204	11/09/20	0.0	1023	--	60	1.0	1.5	0.0	3.4	17.1	0.0	3.4	17.4	79.2	0	0	0.05	0.00	0.1	dry at 4.534m
GM204	29/09/20	0.4	1015	--	60	1.0	1.5	0.0	2.9	19.0	0.0	2.9	19.0	78.1	0	2	0.09	0.00	0.0	Dry
GM204	30/10/20	-3.3	1002	--	60	1.0	1.5	0.4	13.4	4.6	0.0	13.4	4.6	82.1	0	0	0.34	0.00	0.0	
GM204	1/12/20	-0.5	1003	--	65	1.0	1.5	0.0	6.6	15.2	0.0	6.6	15.2	78.2	0	0	14.76	0.00	0.1	
GM205	11/09/20	0.0	1023	--	60	1.0	1.5	0.0	6.4	14.9	0.0	6.4	14.9	78.7	0	1	-0.05	0.00	0.1	dry at 5.139m
GM205	29/09/20	0.0	1015	--	60	1.0	1.5	0.0	5.0	17.5	0.0	5.0	17.5	77.5	0	2	0.00	0.00	0.0	Dry
GM205	30/10/20	0.1	1002	--	60	1.0	1.5	0.1	13.2	12.3	0.0	13.1	12.3	74.6	0	0	-0.02	0.00	0.0	
GM205	1/12/20	-0.3	1003	--	70	1.0	1.5	0.0	14.3	7.8	0.0	14.3	7.8	77.9	0	1	12.76	0.00	0.1	
GM206	11/09/20	0.0	1024	3.204	60	1.0	1.5	0.0	8.0	14.8	0.0	8.0	14.8	77.2	0	1	-0.03	0.00	0.1	
GM206	29/09/20	0.0	1015	3.340	60	1.0	1.5	0.0	8.4	14.7	0.0	8.4	14.7	76.9	0	4	0.00	0.00	0.0	
GM206	30/10/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	GasClam
GM206	1/12/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	GasClam
GM207	11/09/20	0.1	1023	4.960	60	1.0	1.5	0.0	3.4	12.4	0.0	3.3	12.4	84.2	0	1	0.03	0.00	0.1	
GM207	29/09/20	-5.7	1015	4.484	60	1.0	1.5	0.0	4.9	6.7	0.0	4.9	6.8	88.3	0	3	-0.03	0.00	0.0	
GM207	30/10/20	-6.5	1003	4.561	60	1.0	1.5	0.0	7.7	5.1	0.0	7.7	5.2	87.2	0	0	4.84	0.00	0.0	
GM207	1/12/20	-3.8	1003	4.659	70	1.0	1.5	0.0	9.7	3.3	0.0	9.7	3.4	87.0	0	0	11.86	0.00	0.1	
GM208	11/09/20	-0.1	1024	4.395	60	1.0	1.5	0.0	3.1	13.2	0.0	3.1	13.1	83.8	0	0	0.02	0.00	0.1	
GM208	29/09/20	0.1	1015	4.384	60	1.0	1.5	0.0	3.0	10.6	0.0	2.9	10.6	86.4	0	2	0.09	0.00	0.0	
GM208	30/10/20	-2.0	1003	4.386	60	1.0	1.5	0.0	5.2	9.6	0.0	5.1	10.0	84.6	0	0	33.52	0.00	0.0	
GM208	1/12/20	-2.6	1004	4.429	65	1.0	1.5	0.0	8.3	4.7	0.0	8.3	4.8	87.0	0	0	11.10	0.00	0.1	
GM209	11/09/20	0.1	1023	--	60	1.0	1.5	0.0	14.0	7.2	0.0	14.0	7.2	78.8	0	1	-0.05	0.00	0.1	dry at 4.744m
GM209	29/09/20	0.0	1015	--	60	1.0	1.5	0.0	16.0	6.4	0.0	16.0	6.4	77.6	0	10	0.05	0.00	0.0	Dry
GM209	30/10/20	0.0	1001	--	60	1.0	1.5	0.0	17.4	6.0	0.0	14.8	6.5	76.6	0	0	16.75	0.00	0.0	
GM209	1/12/20	-0.2	1003	--	63	1.0	1.5	0.0	24.9	2.4	0.0	24.8	2.5	72.7	1	1	5.88	0.00	0.1	
GM210	11/09/20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	No gas tap. Dry at 5.049m
GM210	29/09/20	0.1	1016	--	60	1.0	1.5	0.0	3.2	18.0	0.0	3.2	18.0	78.8	0.0	2	0.1	0.0	0.0	Dry at 5.050m
GM210	30/10/20	0.0	1002.0	4.8	60.0	1.0	1.5	0.0	22.4	2.4	0.0	22.1	2.5	75.2	0.0	0.0	20.8	0.00	0.0	
GM210	1/12/20	0.0	1003.0	4.9	65.0	1.0	1.5	0.0	13.0	10.1	0.0	13.0	10.1	76.9	1.0	0.0	11.6	0.00	0.0	
GM301	11/09/20	0.1	1024	--	60	1.0	1.5	0.0	5.3	6.9	0.0	5.3	6.9	87.8	0	0	-0.05	0.00	0.1	dry/mud at 6.775m
GM301	29/09/20	0.2	1015	--	60	1.0	1.5	0.0	5.8	7.3	0.0	5.8	7.3	86.9	0	3	-0.02	0.00	0.0	Dry
GM301	30/10/20	0.0	1002	--	60	1.0	1.5	0.0	10.0	6.9	0.0	10.0	4.6	89.1	0	0	29.35	0.00	0.0	
GM301	1/12/20	-0.2	1003	--	63	1.0	1.5	0.0	8.7	6.6	0.0	8.7	6.7	84.8	2	1	12.33	0.00	0.0	
GM302	11/09/20	0.0	1024	--	60	1.0	1.5	0.0	2.5	17.8	0.0	2.5	17.8	79.7	0	0	0.09	0.00	0.1	dry/mud at 6.557m
GM302	29/09/20	0.3	1015	--	60	1.0	1.5	0.0	0.8	21.0	0.0	0.8	19.9	78.2	0	2	0.00	0.00	0.0	Dry
GM302	30/10/20	-0.8	1002	6.5	60	1.0	1.5	0.0	5.8	13.7	0.0	5.8	13.7	80.5	0	0	0.45	0.00	0.0	
GM302	1/12/20	-0.4	1003	6.6	60	1.0	1.5	0.5	12.3	0.1	0.5	12.3	0.2	87.1	2	1	11.53	0.00	0.0	
GM303	11/09/20	0.1	1023	--	120	1.0	1.5	0.0	2.4	20.1	0.0	2.4	20.1	77.5	0	1	0.07	0.00	0.1	No gas tap. Replaced and readings taken, well purged 2x as long. Mud at 6.380m.
GM303	29/09/20	0.2	1015	--	60	1.0	1.5	0.0	5.1	17.6	0.0	5.1	17.6	77.3	0	2	0.10	0.00	0.0	Dry
GM303	30/10/20	-0.1	1002	6.4	60	1.0	1.5	0.0	8.5	13.2	0.0	8.5	13.2	78.3	0	0	16.11	0.00	0.0	
GM303	1/12/20	-0.1	1003	--	60	1.0	1.5	0.0	7.9	13.7	0.0	7.9	13.8	78.5	2	0	10.94	0.00	0.0	



Table A2. Gas Screening Values
ESR Horsley Logistics Park
327-335 Burley Rd, Horsley Park NSW 2175
Landfill Gas Risk Assessment -0565895

Well ID	Max Flow (L/hr)	Max CH4 (% v/v)	Max CO2 (% v/v)	Location	GSV CH4 (L/hr)	GSV CO2 (L/hr)
GM201	0.4	0	13.5	Stage 2C	0	0.054
GM202	0.1	0.1	16	Stage 2C	0.0001	0.016
GM203	0.2	0	6.4	Stage 2C	0	0.0128
GM204	0.4	0	13.4	Stage 2A	0	0.0536
GM205	0.1	0	14.3	Stage 2A	0	0.0143
GM206	0	0	8.4	Stage 2A	0	0
GM207	0.1	0	9.7	Stage 2A	0	0.0097
GM208	0.1	0	8.3	Stage 2A	0	0.0083
GM209	0.1	0	24.8	Stage 2A	0	0.0248
GM210	0.1	0	22.1	Stage 2A	0	0.0221
GM301	0.2	0	10	Stage 3	0	0.02
GM302	0.3	0.5	12.3	Stage 3	0.0015	0.0369
GM303	0.2	0	8.5	Stage 3	0	0.017
Overall	0.4	0.5	25	n/a	0.0020	0.0992

Appendix J: **Remediation Action Plan AECs (ERM, November 2020)**



Legend

- Site Boundary
- Stage Boundaries
- Outside development area (E2 Conservation)
- Area applicable to revised RAP
- Camide Landfill subject to EMP
- Southern and Eastern Bund walls
- Data Gap areas
- Area covered by 2014 RAP



Approximate Scale



Figure Title

Updated RAP AECs

Project Title

Horsley Park Remediation Action Plan

Client

CSR

Project No.

0449086

Date

12/12/2019

Scale

As Shown

Figure No.

3

Revision

Version 2

Appendix K:

Validation Location Plans (ERM, April 2023)





Legend

- Broader Site Development Boundary
- Stage 3 Boundaries
- Stage Boundaries
- Cadastre (Lot)
- Groundwater Monitoring Well

Data Source:
NSW DFSI, DCDB/DTDB 2023
Nearmap Imagery February 2023

Stage Site Layout

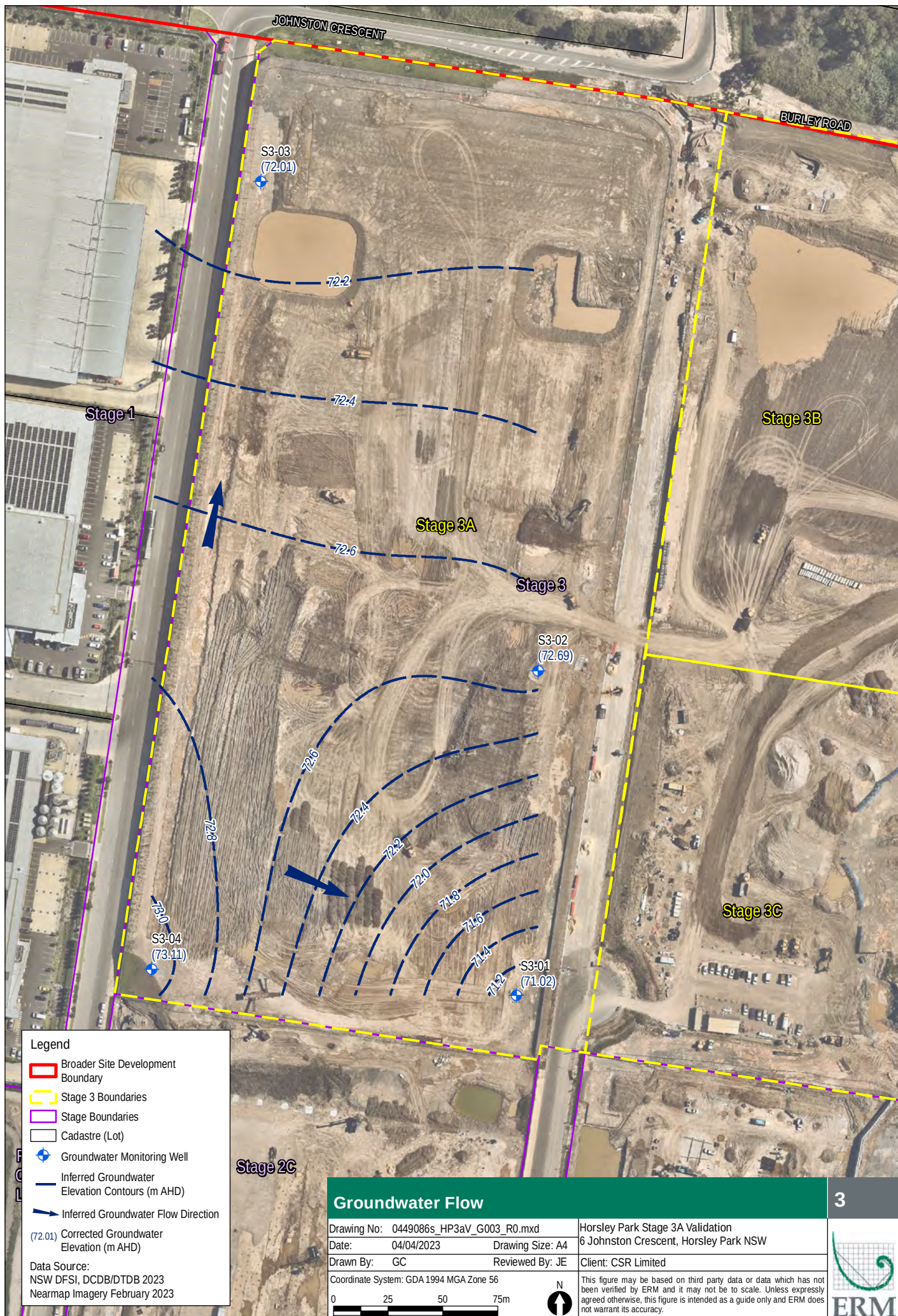
Drawing No: 0449086s_HP3aV_G002_R0.mxd	Horsley Park Stage 3A Validation
Date: 04/04/2023	6 Johnston Crescent, Horsley Park NSW
Drawn By: GC	Reviewed By: JE
Client: CSR Limited	

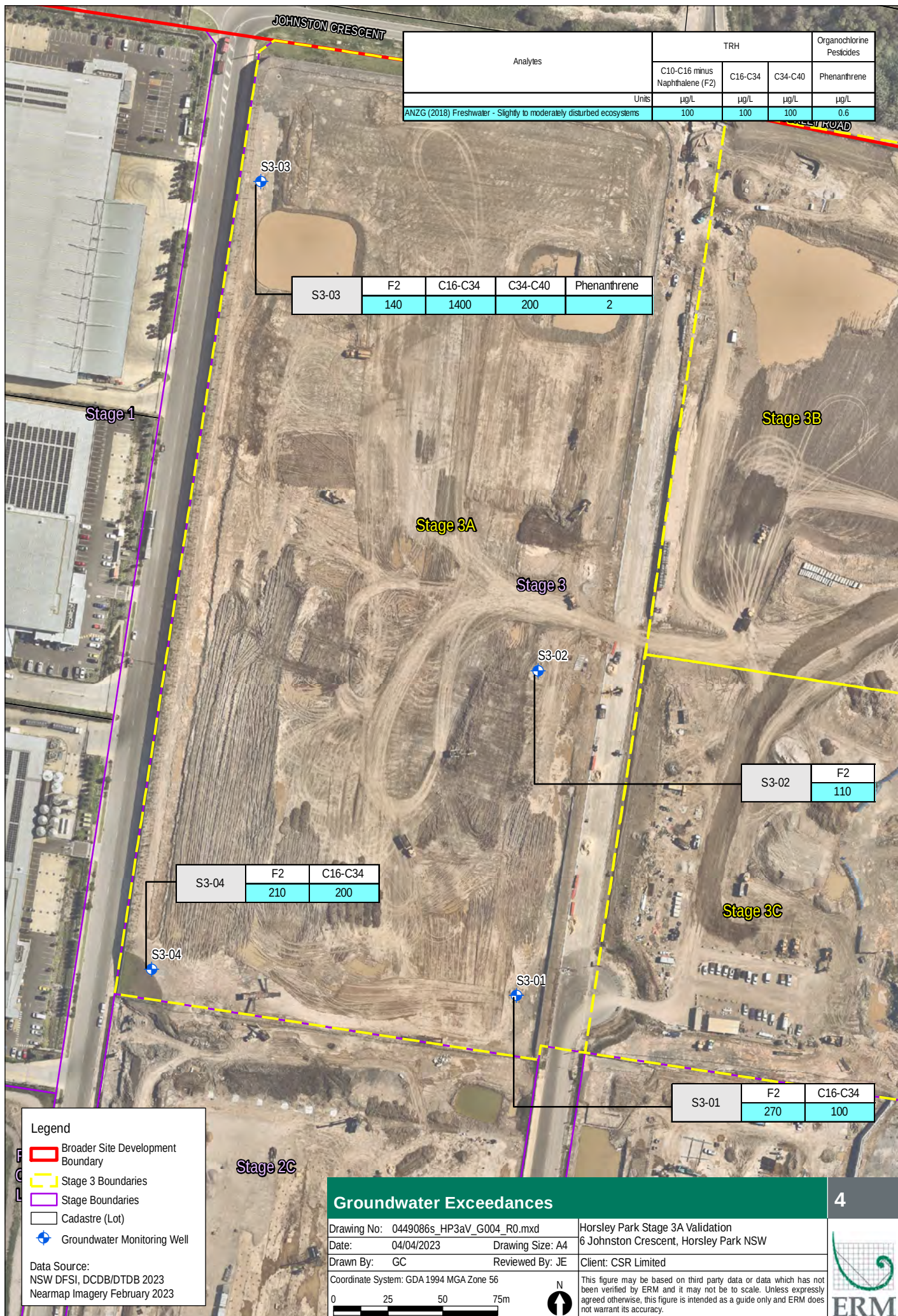
Coordinate System: GDA 1994 MGA Zone 56

0 25 50 75m



This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.





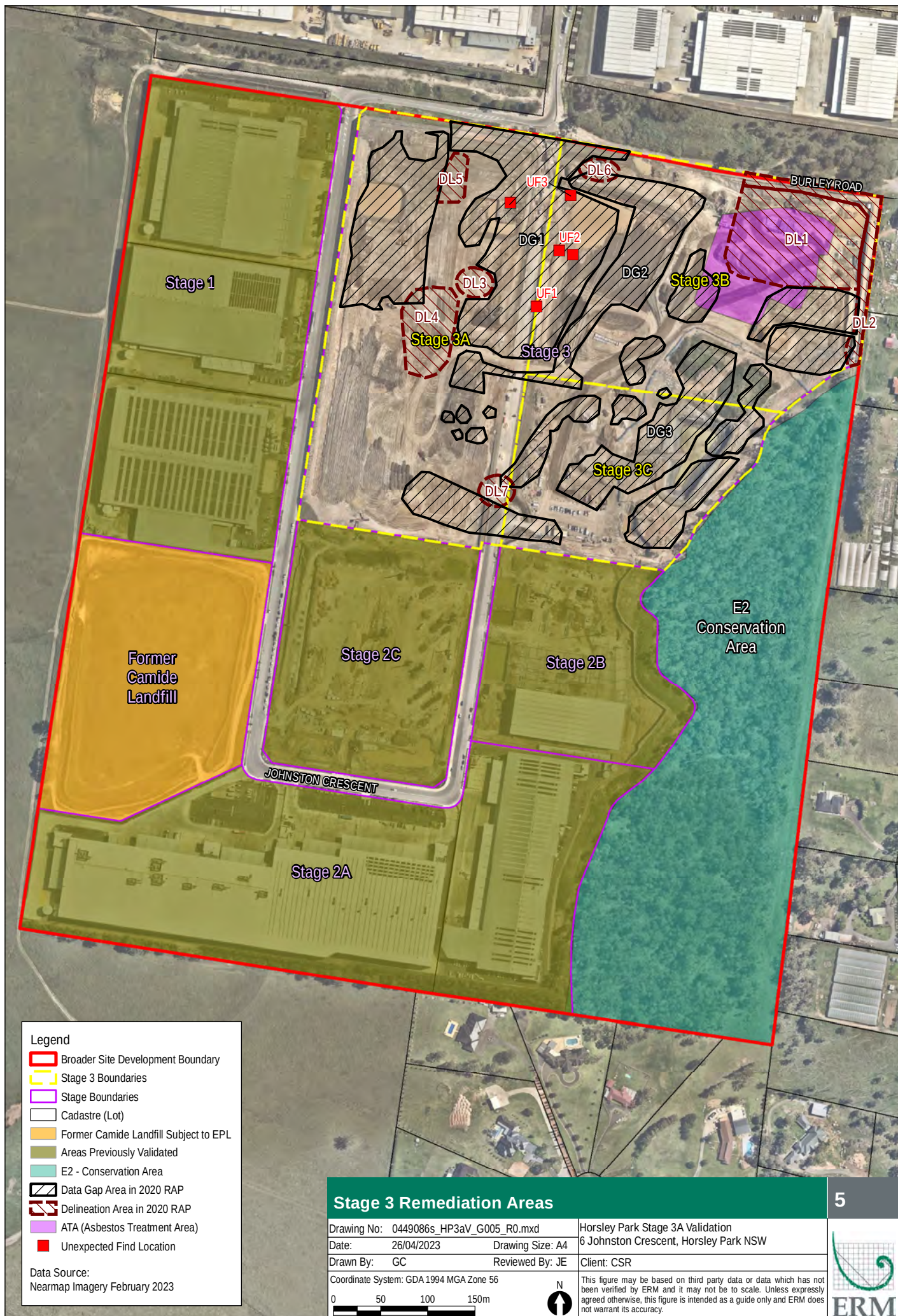
Analytes	TRH			Organochlorine Pesticides
	C10-C16 minus Naphthalene (F2)	C16-C34	C34-C40	Phenanthrene
Units	µg/L	µg/L	µg/L	µg/L
ANZG (2018) Freshwater - Slightly to moderately disturbed ecosystems	100	100	100	0.6

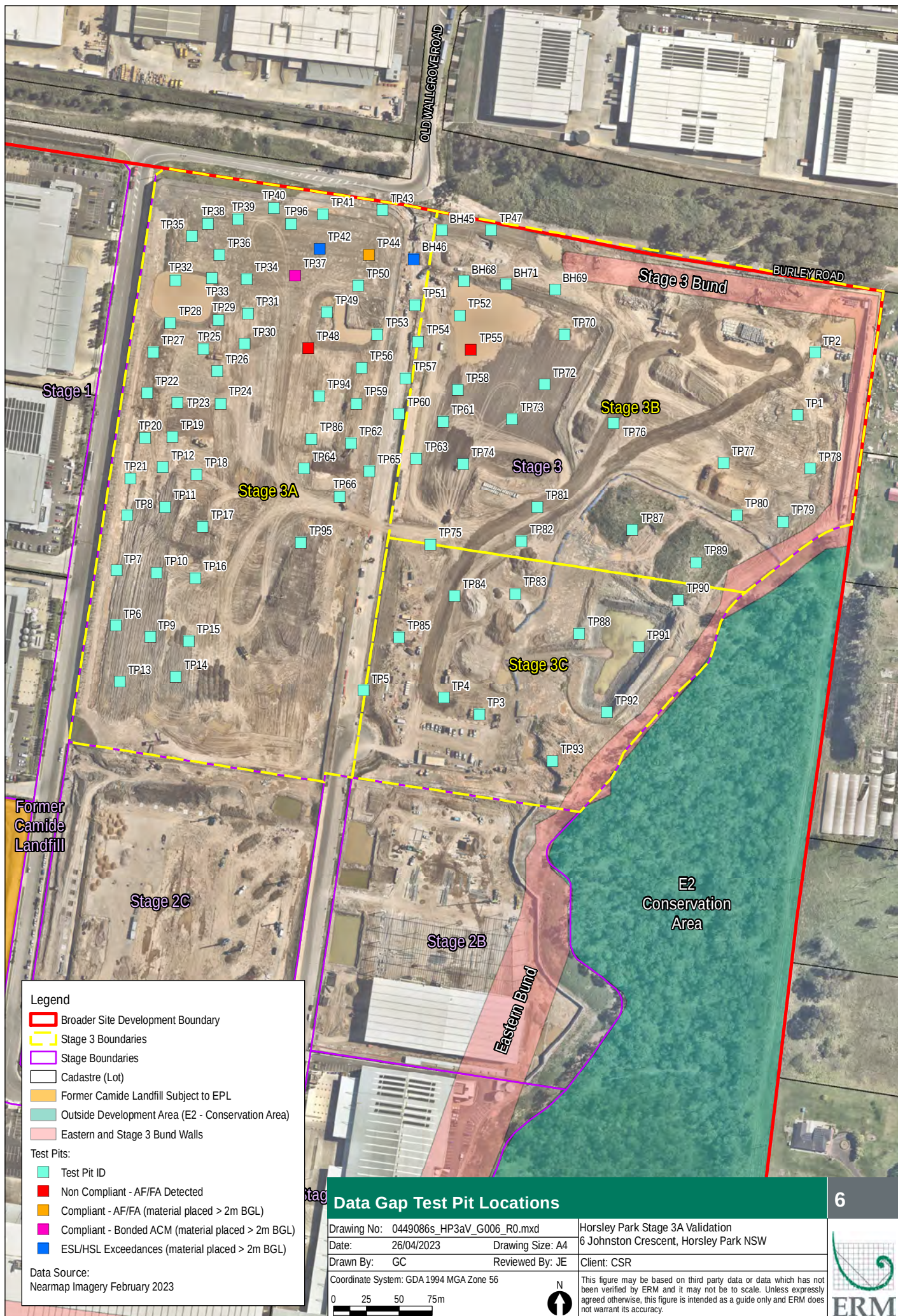
S3-03	F2	C16-C34	C34-C40	Phenanthrene
	140	1400	200	2

S3-02	F2
	110

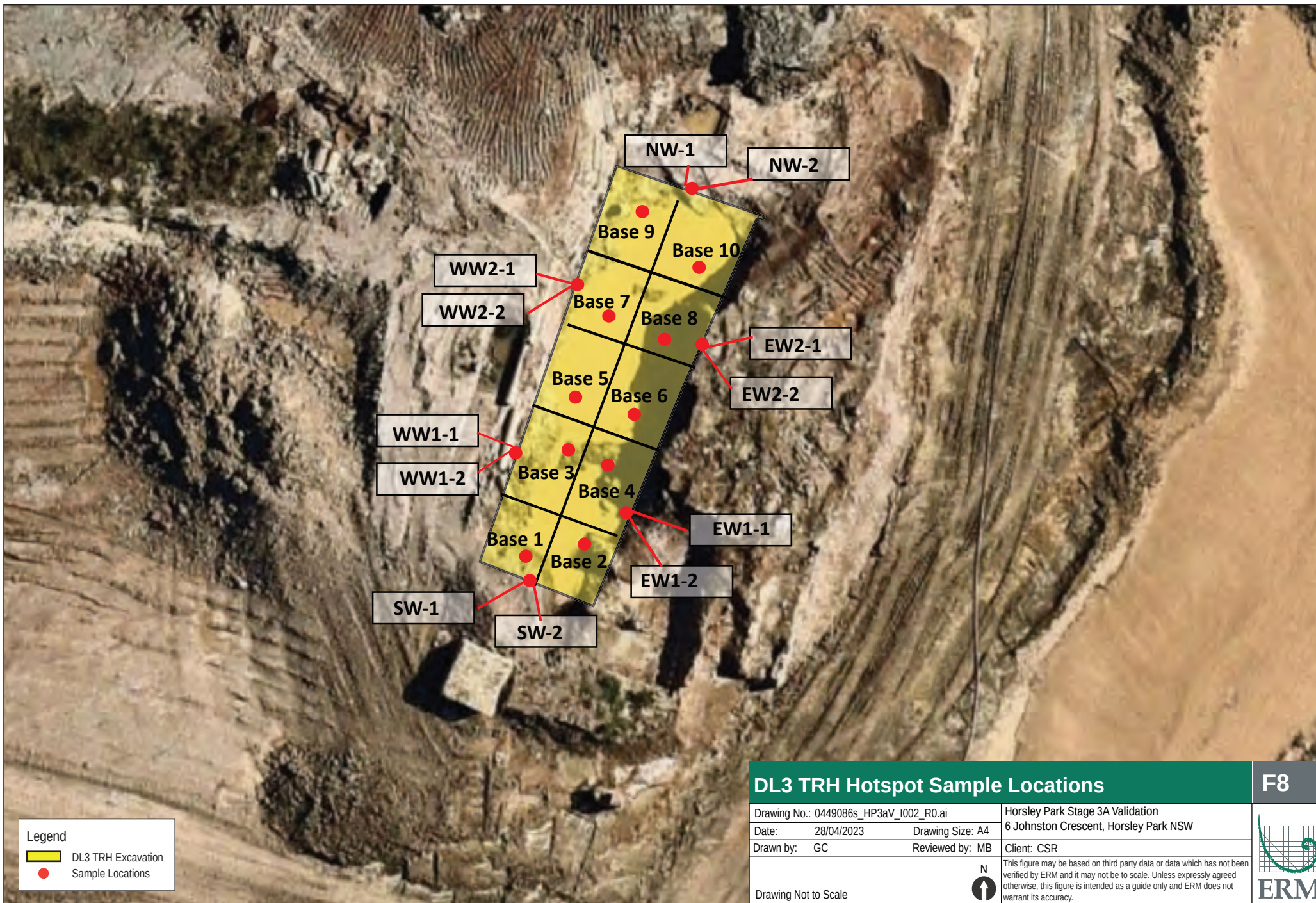
S3-04	F2	C16-C34
	210	200

S3-01	F2	C16-C34
	270	100



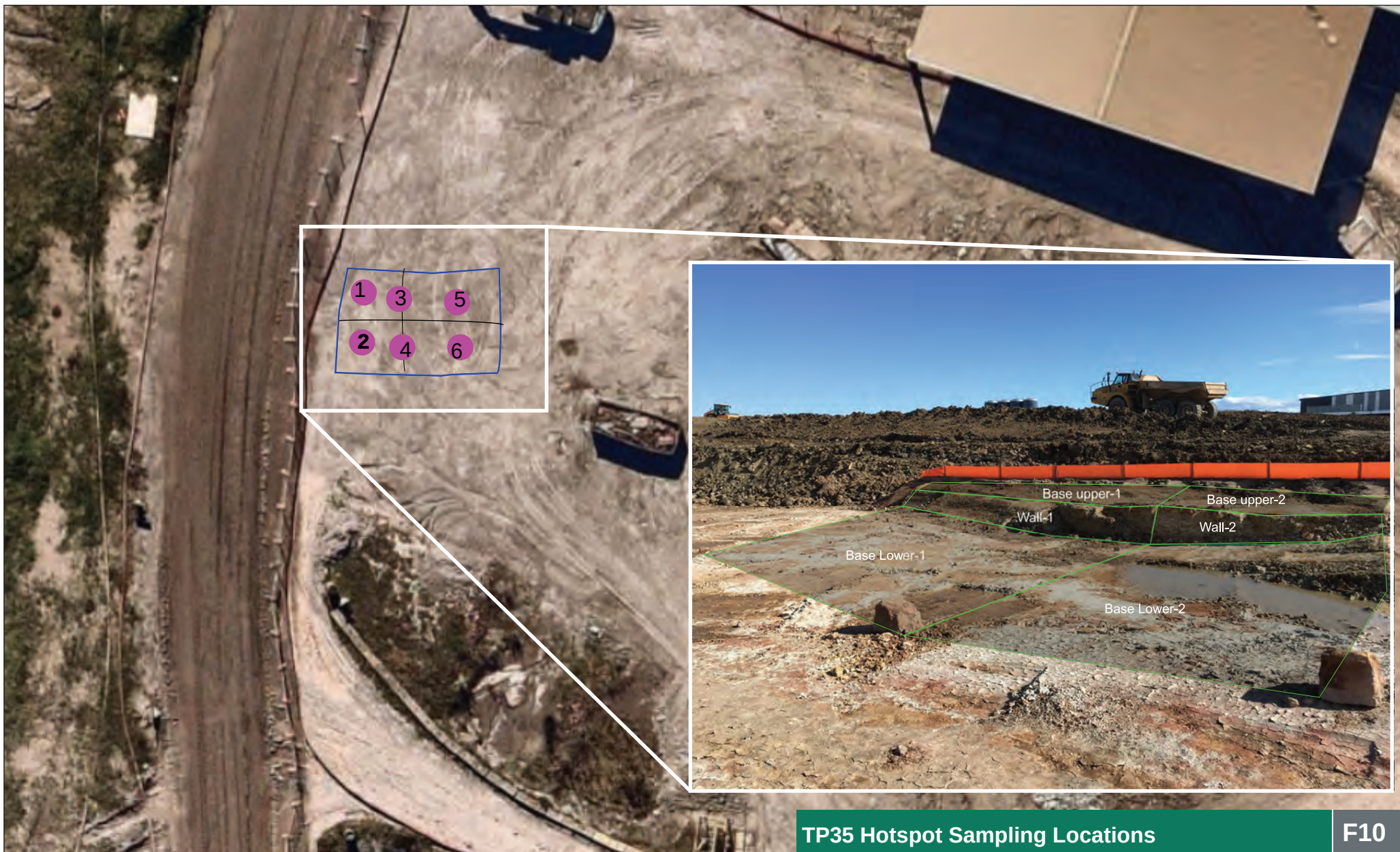






F8





Legend

	PG Stockpile	1 Base Upper - 1	5 Base Lower - 1
	Sample Locations	2 Base Upper - 2	6 Base Lower - 2
		3 Wall - 1	
		4 Wall - 2	

TP35 Hotspot Sampling Locations

F10

Drawing No.: 0449086s_HP3aV_I004_R0.ai	Horsley Park Stage 3A Validation
Date: 28/04/2023	6 Johnston Crescent, Horsley Park NSW
Drawn by: GC	Client: CSR
Reviewed by: MB	This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
Drawing Not to Scale	



Appendix L: **Validation Analytical Summary Tables (ERM, April 2023)**

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ID	Year	Month	Day	Time	Location	Activity	Status	Priority	Category	Sub-category	Parent ID	Child ID	Grandchild ID	Parent Name	Child Name	Grandchild Name	Parent Address	Child Address	Grandchild Address	Parent Phone	Child Phone	Grandchild Phone	Parent Email	Child Email	Grandchild Email	Parent Website	Child Website	Grandchild Website	Parent Social	Child Social	Grandchild Social	Parent Notes	Child Notes	Grandchild Notes	Parent Tags	Child Tags	Grandchild Tags	Parent Links	Child Links	Grandchild Links	Parent Images	Child Images	Grandchild Images	Parent Documents	Child Documents	Grandchild Documents	Parent Videos	Child Videos	Grandchild Videos	Parent Audio	Child Audio	Grandchild Audio	Parent Files	Child Files	Grandchild Files	Parent Apps	Child Apps	Grandchild Apps	Parent Games	Child Games	Grandchild Games	Parent Books	Child Books	Grandchild Books	Parent Music	Child Music	Grandchild Music	Parent Art	Child Art	Grandchild Art	Parent Sports	Child Sports	Grandchild Sports	Parent Hobbies	Child Hobbies	Grandchild Hobbies	Parent Pets	Child Pets	Grandchild Pets	Parent Plants	Child Plants	Grandchild Plants	Parent Cars	Child Cars	Grandchild Cars	Parent Trains	Child Trains	Grandchild Trains	Parent Planes	Child Planes	Grandchild Planes	Parent Boats	Child Boats	Grandchild Boats	Parent Bikes	Child Bikes	Grandchild Bikes	Parent Skis	Child Skis	Grandchild Skis	Parent Snowboards	Child Snowboards	Grandchild Snowboards	Parent Sleds	Child Sleds	Grandchild Sleds	Parent Helmets	Child Helmets	Grandchild Helmets	Parent Goggles	Child Goggles	Grandchild Goggles	Parent Gloves	Child Gloves	Grandchild Gloves	Parent Socks	Child Socks	Grandchild Socks	Parent Shoes	Child Shoes	Grandchild Shoes	Parent Pants	Child Pants	Grandchild Pants	Parent Jackets	Child Jackets	Grandchild Jackets	Parent Hats	Child Hats	Grandchild Hats	Parent Scarves	Child Scarves	Grandchild Scarves	Parent Mittens	Child Mittens	Grandchild Mittens	Parent Suits	Child Suits	Grandchild Suits	Parent Dresses	Child Dresses	Grandchild Dresses	Parent Skirts	Child Skirts	Grandchild Skirts	Parent Shorts	Child Shorts	Grandchild Shorts	Parent T-Shirts	Child T-Shirts	Grandchild T-Shirts	Parent Jeans	Child Jeans	Grandchild Jeans	Parent Suits	Child Suits	Grandchild Suits	Parent Dresses	Child Dresses	Grandchild Dresses	Parent Skirts	Child Skirts	Grandchild Skirts	Parent Shorts	Child Shorts	Grandchild Shorts	Parent T-Shirts	Child T-Shirts	Grandchild T-Shirts	Parent Jeans	Child Jeans	Grandchild Jeans	Parent Suits	Child Suits	Grandchild Suits	Parent Dresses	Child Dresses	Grandchild Dresses	Parent Skirts	Child Skirts	Grandchild Skirts	Parent Shorts	Child Shorts	Grandchild Shorts	Parent T-Shirts	Child T-Shirts	Grandchild T-Shirts	Parent Jeans	Child Jeans	Grandchild Jeans	Parent Suits	Child Suits	Grandchild Suits	Parent Dresses	Child Dresses	Grandchild Dresses	Parent Skirts	Child Skirts	Grandchild Skirts	Parent Shorts	Child Shorts	Grandchild Shorts	Parent T-Shirts	Child T-Shirts	Grandchild T-Shirts	Parent Jeans	Child Jeans	Grandchild Jeans	Parent Suits	Child Suits	Grandchild Suits	Parent Dresses	Child Dresses	Grandchild Dresses	Parent Skirts	Child Skirts	Grandchild Skirts	Parent Shorts	Child Shorts	Grandchild Shorts	Parent T-Shirts	Child T-Shirts	Grandchild T-Shirts	Parent Jeans	Child Jeans	Grandchild Jeans	Parent Suits	Child Suits



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[illegible]

	Naphthalene	Inorganics	Organic								TPH			
	Naphthalene mg/kg	Moisture Content (dried @ 103°C) %	TRH C6-C10 MG/KG	TRH C6-C10 less BTEX (F1) MG/KG	TRH C6-C9 MG/KG	TRH >C10-C16 MG/KG	TRH >C10-C16 less Naphthalene (F2) MG/KG	TRH >C16-C34 MG/KG	TRH >C34-C40 MG/KG	TRH >C10-C40 (total)* MG/KG	TRH C15-C28 MG/KG	TRH C29-C36 MG/KG	TRH C10-C14 MG/KG	TRH C10-C36 (Total) MG/KG
EQL	0.5	1	20	20	20	50	50	100	100	100	50	50	20	50
CRC Care (2011) Direct Contact HSL D - Comm/Ind	11000			26000			20000	27000	38000					
NEPM (1999) EIL - Commercial/Industrial	370													
NEPM (1999) EIL - Commercial/Industrial (fine)				215		170		2500	6600					
NEPM (1999) HIL D - Commercial/Industrial														
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m	NL			310			NL							
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m	NL			480			NL							
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m	NL						NL							
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+	NL			NL			NL							
NEPM (1999) Management Limits - Commercial/Industrial (fine)			800			1000		5000	10000					

Field_ID	Sampled_Date-Time	Lab_Report_Number	Sample_Type														
BASE-1	21/03/2022	873003	Normal	<0.5	16	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE10	21/03/2022	873003	Normal	<0.5	16	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE-2	21/03/2022	873003	Normal	<0.5	22	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE-3	21/03/2022	873003	Normal	<0.5	17	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE-3A	21/03/2022	873003	Field_D	<0.5	13	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE4	21/03/2022	873003	Normal	<0.5	10	<20	<20	<20	<50	<50	140	<100	140	150	<50	<20	150
BASE5	21/03/2022	873003	Normal	<0.5	11	<20	<20	<20	480	480	570	<100	1050	720	<50	240	960
BASE 5-V	23/03/2022	873684	Normal	<0.5	13	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE6	21/03/2022	873003	Normal	<0.5	19	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE7	21/03/2022	873003	Normal	<0.5	16	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE8	21/03/2022	873003	Normal	<0.5	20	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
BASE9	21/03/2022	873003	Normal	<0.5	22	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3EW1-1	21/03/2022	873003	Normal	<0.5	14	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3EW1-2	21/03/2022	873003	Normal	<0.5	12	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3EW2-1	21/03/2022	873003	Normal	<0.5	14	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3EW2-2	21/03/2022	873003	Normal	<0.5	13	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3NW-1	21/03/2022	873003	Normal	<0.5	20	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3NW-2	21/03/2022	873003	Normal	<0.5	20	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3SW-1	21/03/2022	873003	Normal	<0.5	12	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3SW-2	21/03/2022	873003	Normal	<0.5	15	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3WW1-1	21/03/2022	873003	Normal	<0.5	17	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3WW1-2	21/03/2022	873003	Normal	<0.5	15	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3WW2-1	21/03/2022	873003	Normal	<0.5	20	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50
DL3WW2-2	21/03/2022	873003	Normal	<0.5	21	<20	<20	<20	<50	<50	<100	<100	<100	<50	<50	<20	<50

Statistical Summary																	
Number of Results	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Number of Detects	0	24	0	0	0	0	1	1	2	0	2	2	0	1	2		
Minimum Concentration	<0.5	10	<20	<20	<20	<50	<50	<100	<100	<100	<100	<50	<50	<20	<50		
Minimum Detect	ND	10	ND	ND	ND	480	480	140	ND	140	150	ND	240	150			
Maximum Concentration	<0.5	22	<20	<20	<20	480	480	570	<100	1050	720	<50	240	960			
Maximum Detect	ND	22	ND	ND	ND	480	480	570	ND	1050	720	ND	240	960			
Average Concentration	0.25	16	10	10	10	44	44	75	50	95	59	25	20	69			
Median Concentration	0.25	16	10	10	10	25	25	50	50	50	25	25	10	25			
Standard Deviation	0	3.6	0	0	0	93	93	107	0	204	143	0	47	191			
Number of Guideline Exceedances	0	0	0	0	0	1	0	0	0	0	0	0	0	0			
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	1	0	0	0	0	0	0	0	0			

Env Stds Comments

[illegible][illegible][illegible]

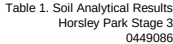
				tals				Organic												PAH																	
				Lead	Mercury	Nickel	Zinc	TRH C6-C10	TRH C6-C10 less BTEX (P1)	TRH C6-C9	TRH C6-C16	TRH >C10-C15 less Naphthalene (P2)	TRH >C16-C34	TRH >C34-C40	TRH >C40-C60 (total)*	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Benz(a)anthracene	Benz(b)pyrene	Benz(a)pyrene TEQ (lower bound) *	Benz(a)pyrene TEQ (medium bound) *	Benz(a)pyrene TEQ (upper bound) *	Benz(k)fluoranthene	Benz(g,h,i)perylene	Benzofluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene				
				mg/kg	mg/kg	mg/kg	mg/kg	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG	Mg/KG				
				5	0.1	5	5	20	26000	20	20	50	50	100	100	100	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
CRC Care (2011) Direct Contact HSL D - Comm/Ind												20000	27000	38000																							
NEPM (1999) EIL - Commercial/Industrial				1800		300	690																														
NEPM (1999) ESL - Commercial/Industrial (fine)									215		170		2500	6600								1.4		40													
NEPM (1999) HIL D - Commercial/Industrial				1500	730	6000	400000																														
NEPM (1999) HSL D Comm/Indust - Vi Clay 0 to <1 m									310			NL																									
NEPM (1999) HSL D Comm/Indust - Vi Clay 1 to <2 m									480			NL																									
NEPM (1999) HSL D Comm/Indust - Vi Clay 2 to <4 m									NL			NL																									
NEPM (1999) HSL D Comm/Indust - Vi Clay 4 m+									NL			NL																									
NEPM (1999) Management Limits - Commercial/Industrial (fine)								800			1000		5000	10000																							
NEPM (1999) Management Limits - Urban residential & open space (fine)								800			1000		3500	10000																							
Field_ID	Sample_Depth_Range	Sampled_Date/Time	Lab_Report_Number	9	<0.1	11	46	<20	<20	<20	<50	<50	150	<100	150	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
HS-1	2/06/2021	800554		9	<0.1	11	46	<20	<20	<20	<50	<50	160	<100	160	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
HS-2	2/06/2021	800554		15	<0.1	14	66	<20	<20	<20	<50	<50	1100	300	1400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
HS-3	2/06/2021	800554		12	<0.1	14	57	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP EXCAVATION BASE	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP EXCAVATION EW	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP EXCAVATION NW	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP EXCAVATION SW	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP EXCAVATION WW	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP NW TOP	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
SUMP TOP BASE	15/09/2021	825599		-	-	-	-	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Statistical Summary																																					
Number of Results				3	3	3	3	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				
Number of Detects				3	0	3	3	0	0	0	0	0	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Minimum Concentration				9	<0.1	11	46	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Minimum Detect				9	ND	11	46	ND	ND	ND	ND	ND	150	300	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND			
Maximum Concentration				9	<0.1	14	66	<20	<20	<20	<50	<50	<1100	300	1400	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Maximum Detect				15	ND	14	66	ND	ND	ND	ND	ND	1100	300	1400	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Average Concentration				12	0.05	13	56	10	10	10	25	25	176	75	206	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25				
Median Concentration				12	0.05	14	57	10	10	10	25	25	50	50	50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25				
Standard Deviation				3	0	1.7	10	0	0	0	0	0	328	79	422	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

				PCBs														Pesticides																					
				Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	4,4-DDE	α-BHC	Aldrin	α-Alrin + Dieldrin	Azinophos methyl	β-BHC	Chlordane	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	δ-BHC	DDD	DDT	DDT+DDE+DDD	Diazinon	Dichlorvos	Dieldrin	Dimethoate	Disulfoton	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde			
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
				0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.05	0.05	0.05	0.2	0.05	0.1	0.2	0.2	0.2	2	0.05	0.05	0.05	0.05	0.2	0.2	0.05	0.2	0.2	0.05	0.05	0.05	0.05	0.05	0.05		
EQI																									640														
CRC Care (2011) Direct Contact HSL D - Comm/Ind																																							
NEPM (1999) EIL - Commercial/Industrial																																							
NEPM (1999) ESL - Commercial/Industrial (fine)																																							
NEPM (1999) HILD - Commercial/Industrial											7			45			530		2000							3600									100				
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																																							
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																																							
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																																							
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																																							
NEPM (1999) Management Limits - Commercial/Industrial (fine)																																							
NEPM (1999) Management Limits - Urban residential & open space (fine)																																							
Field_ID	Sample_Depth_Range	Sampled_Date-Time	Lab_Report_Number	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
HS-1		2/06/2021	800554	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
HS-2		2/06/2021	800554	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
HS-3		2/06/2021	800554	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
SUMP EXCAVATION BASE	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP EXCAVATION EW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP EXCAVATION NW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP EXCAVATION SW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP EXCAVATION WW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP NW TOP	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SUMP TOP BASE	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Statistical Summary																																							
Number of Results				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Minimum Concentration				<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Maximum Concentration				<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.1	<0.2	<0.2	<0.2	<2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.05	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05			
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Average Concentration				0.25	0.05	0.25	0.25	0.25	0.25	0.25	0.25	0.025	0.025	0.025	0.025	0.1	0.025	0.05	0.1	0.1	0.1	1	0.025	0.025	0.025	0.025	0.1	0.1	0.025	0.1	0.1	0.025	0.025	0.025	0.025	0.025			
Median Concentration				0.25	0.05	0.25	0.25	0.25	0.25	0.25	0.25	0.025	0.025	0.025	0.025	0.1	0.025	0.05	0.1	0.1	0.1	1	0.025	0.025	0.025	0.025	0.1	0.1	0.025	0.1	0.1	0.025	0.025	0.025	0.025	0.025			
Standard Deviation				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

																								TPH																						
																								Endrin ketone	Ethion	Ethoprop	Fenitrothion	Fenitron	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Malathion	Methoxychlor	Methyl parathion	Monocrotophos	Parathion	Phorate	Ronnel	Bolstar (Isulprofos)	Merphos	TPH C15-C28	TPH C29-C36	TPH C10-C14	TPH C10-C36 (Total)	
																								mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG
EOL																								0.05	0.2	0.2	0.2	0.2	0.05	0.05	0.05	0.05	0.2	0.2	0.2	2	0.2	0.2	0.2	0.2	0.2	50	50	20	50	
CRC Care (2011) Direct Contact HSL D - Comm/Ind																																														
NEPM (1999) EIL - Commercial/Industrial																																														
NEPM (1999) ESL - Commercial/Industrial (fine)																																														
NEPM (1999) HILD - Commercial/Industrial																														50		80		2500												
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																																														
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																																														
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																																														
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																																														
NEPM (1999) Management Limits - Commercial/Industrial (fine)																																														
NEPM (1999) Management Limits - Urban residential & open space (fine)																																														
Field ID	Sample_Depth_Range	Sampled_Date-Time	Lab_Report_Number		<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	81	88	<20	169																					
HS-1		2/06/2021	800554		<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	75	100	<20	175																					
HS-2		2/06/2021	800554		<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	390	320	<20	710																					
HS-3		2/06/2021	800554		<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50																					
SUMP EXCAVATION BASE	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP EXCAVATION EW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP EXCAVATION NW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP EXCAVATION SW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP EXCAVATION WW	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP NW TOP	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
SUMP TOP BASE	15/09/2021	825599		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<50	<50	<20	<50																					
Statistical Summary																																														
Number of Results				3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	10	10	10	10																					
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3																					
Minimum Concentration				<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50																					
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75	88	ND	169																					
Maximum Concentration				<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	390	320	<20	710																					
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	390	320	ND	710																					
Average Concentration				0.025	0.1	0.1	0.1	0.1	0.025	0.025	0.025	0.025	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	72	68	10	123																					
Median Concentration				0.025	0.1	0.1	0.1	0.1	0.025	0.025	0.025	0.025	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	25	25	10	25																					
Standard Deviation				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	93	0	215																					
Number of Guideline Exceedances				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																					

						Naphthalene	OCP		OCs	OPs				PAH/Phenols (SIM)	SVOC				Volatile						Inorganics	Metals											
	Omethoate	Phirimphos-methyl	Pyrazophos	Terbufos	Tetrachlorvinphos	Naphtthalene	Vic EPA IWRG 621 OCP (Total)*	Vic EPA IWRG 621 Other OCP (Total)*	Toxaphene	Mevinphos (Phosdrin)	Naled (Dibrom)	Toluthion	Trichloronate	Sum of polycyclic aromatic hydrocarbons	Demeton-O	Demeton-S	EPN	Fensulfthion	Toluene	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Xylenes - Total*	Moisture Content (dried @ 103° C)	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel					
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
EQL	2	0.2	0.2	0.2	0.2	0.5	0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.3	1	2	0.4	5	5	5	0.1	5					
CRC Care (2011) Direct Contact HSL D - Comm/Ind						11000													99000	430	27000			81000													
NEPM (1999) EIL - Commercial/Industrial						370																			160			680	290	1800		300					
NEPM (1999) ESL - Commercial/Industrial (fine)																			135	95	185			95													
NEPM (1999) HIL D - Commercial/Industrial									160																3000	900	3600	240000	1500	730	6000						
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m						NL													NL	4	NL			NL													
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m						NL													NL	6	NL			NL													
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m						NL													NL	9	NL			NL													
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+						NL													NL	NL	NL			NL													
NEPM (1999) Management Limits - Commercial/Industrial (fine)																																					
Field_ID	Sampled_Date-Time	Lab_Report_Number		<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	0.8	<0.1	1.2	3.7	1.2	4.9	20	9.9	<0.4	16	24	11	<0.1	12		
TP46 SP-1	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	4.1	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	4.1	<0.2	<0.2	<0.2	<0.2	0.7	<0.1	2.8	9.9	3.8	14	15	<2	<0.4	14	38	14	<0.1	11		
TP46 SP-10	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5 - 0.6	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	0.6	<0.2	<0.2	<0.2	<0.2	0.3	<0.1	0.6	1.7	0.7	2.3	20	3.3	<0.4	16	17	9.1	<0.1	13		
TP46 SP-2	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	0.1	<0.1	<0.1	0.2	0.2	0.4	21	6	<0.4	16	26	18	<0.1	13		
TP46 SP-3	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	0.5	<0.1	0.2	0.7	0.4	1.1	-	2.8	<0.4	11	19	10	<0.1	13		
TP46 SP-4	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	0.3	<0.1	0.2	0.9	0.5	1.4	22	7.9	<0.4	19	21	26	<0.1	13		
TP46 SP-5	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5 - 1	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	1.1	<0.1	1.2	5	1.8	6.8	52	3.5	<0.4	22	38	19	<0.1	19		
TP46 SP-6	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	22	4.9	<0.4	14	22	13	<0.1	8.1		
TP46 SP-7	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	0.7	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	0.7	<0.2	<0.2	<0.2	<0.2	0.2	<0.1	0.7	1.9	0.6	2.5	23	5.6	<0.4	14	18	11	<0.1	9.3		
TP46 SP-8	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2	4.3 - 10	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	4.3	<0.2	<0.2	<0.2	<0.2	8.8	0.5	21	43	16	58	17	3.3	<0.4	15	28	14	<0.1	15		
TP46 SP-9	12/05/2022	888551		<2	<0.2	<0.2	<0.2	<0.2																													
Statistical Summary																																					
Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	10	10	10	10	10	10	10	10	10			
Number of Detects	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0	0	0	0	9	1	8	9	9	9	9	9	0	10	10	10	0	10					
Minimum Concentration	<2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	15	<2	<0.4	11	17	9.1	<0.1	8.1						
Minimum Detect	ND	ND	ND	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	0.1	0.5	0.2	0.2	0.2	0.4	15	2.8	ND	11	17	9.1	ND	8.1					
Maximum Concentration	<2	<0.2	<0.2	<0.2	<0.2	10	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	4.3	<0.2	<0.2	<0.2	<0.2	8.8	0.5	21	43	16	58	52	9.9	<0.4	22	38	26	<0.1	19					
Maximum Detect	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND	ND	ND	4.3	ND	ND	ND	ND	8.8	0.5	21	43	16	58	52	9.9	ND	22	38	26	ND	19					
Average Concentration	1	0.1	0.1	0.1	0.1	1.4	0.05	0.05	0.25	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.1	0.1	1.3	0.095	2.8	6.7	2.5	9.2	24	4.8	0.2	16	25	15	0.05	13					
Median Concentration	1	0.1	0.1	0.1	0.1	0.3375	0.05	0.05	0.25	0.1	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.4	0.05	0.65	1.8	0.65	2.4	21	4.2	0.2	15.5	23	13.5	0.05	13					
Standard Deviation	0	0	0	0	0	2.3	0	0	0	0	0	0	0	1.6	0	0	0	0	2.7	0.14	6.4	13	4.9	18	11	2.6	0	3	7.6	5.2	0	3					
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

	Zinc	Organic								PAH																		PCBs									
		TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH C6-C9	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (total)*	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound) *	Benzo(a)pyrene TEQ (medium bound) *	Benzo(a)pyrene TEQ (upper bound) *	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254				
		mg/kg	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EQL	5	20	20	20	50	50	100	100	100	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1				
CRC Care (2011) Direct Contact HSL D - Comm/Ind			26000			20000	27000	38000																													
NEPM (1999) EIL - Commercial/Industrial	690																																				
NEPM (1999) ESL - Commercial/Industrial (fine)			215		170		2500	6600							1.4																						
NEPM (1999) HIL D - Commercial/Industrial	400000																40																				
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m			310			NL																															
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m			480			NL																															
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m			NL			NL																															
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+			NL			NL																															
NEPM (1999) Management Limits - Commercial/Industrial (fin)		800			1000		5000	10000																													
Field ID	Sampled Date-Time	Lab Report Number		48	27	20	<20	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-1	12/05/2022	888551		55	110	93	57	68	63.9	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-10	12/05/2022	888551		39	<20	<20	<20	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-2	12/05/2022	888551		50	<20	<20	<20	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-3	12/05/2022	888551		50	<20	<20	<20	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-4	12/05/2022	888551		43	<20	<20	<20	<50	<50	<100	<100	<100	<100	<1	<1	<1	<0.5	<1	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5				
TP46 SP-5	12/05/2022	888551		63	<20	<20	<20	<50	<50	<100	<100	<100	<100	<1	<1	<1	<0.5	<1	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5				
TP46 SP-6	12/05/2022	888551		85	34	25	<20	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-7	12/05/2022	888551		37	<20	<20	<20	<50	<50	<100	<100	<100	<100	<1	<1	<1	<0.5	<1	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5				
TP46 SP-8	12/05/2022	888551		33	34	31	23	<50	<50	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
TP46 SP-9	12/05/2022	888551		53	520	430	370	92	82	<100	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5				
Statistical Summary																																					
Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10				
Number of Detects	10	5	5	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Minimum Concentration	33	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Minimum Detect	33	27	20	23	68	63.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Maximum Concentration	85	520	430	370	92	82	<100	<100	<100	<1	<1	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5					
Maximum Detect	85	520	430	370	92	82	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Average Concentration	51	78	65	52	36	35	50	50	50	0.33	0.33	0.33	0.25	0.33	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.33	0.25	0.05	0.05	0.05	0.05				
Median Concentration	49	18.5	15	10	25	25	50	50	50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.05	0.05	0.05				
Standard Deviation	15	158	131	113	24	21	0	0	0	0.12	0.12	0.12	0	0.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0.12	0	0	0	0	0				
Number of Guideline Exceedances	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number of Guideline Exceedances(Detects Only)	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

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										TPH			
	Malathion	Methoxychlor	Methyl parathion	Monocrotophos	Parathion	Phorate	Ronnel	Bolstar (Sulprofos)	Merphos	TRH C15- C28	TRH C29- C36	TRH C10- C14	TRH C10- C36 (Total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG
EQL	0.2	0.05	0.2	2	0.2	0.2	0.2	0.2	0.2	50	50	20	50
CRC Care (2011) Direct Contact HSL D - Comm/Ind													
NEPM (1999) EIL - Commercial/Industrial													
NEPM (1999) ESL - Commercial/Industrial (fine)													
NEPM (1999) HIL D - Commercial/Industrial		2500											
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m													
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+													
NEPM (1999) Management Limits - Commercial/Industrial (fin													

Field_ID	Sampled Date-Time	Lab_Report_Number													
TP46 SP-1	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50
TP46 SP-10	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	110	110
TP46 SP-2	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	28	<50
TP46 SP-3	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	21	<50
TP46 SP-4	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50
TP46 SP-5	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50
TP46 SP-6	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50
TP46 SP-7	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50
TP46 SP-8	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	30	<50
TP46 SP-9	12/05/2022	888551	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	140	140

Statistical Summary

Number of Results	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	5	2	2
Minimum Concentration	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	<20	<50	
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21	110	
Maximum Concentration	<0.2	<0.05	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<50	<50	140	140	
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	140	
Average Concentration	0.1	0.025	0.1	1	0.1	0.1	0.1	0.1	0.1	25	25	38	45	
Median Concentration	0.1	0.025	0.1	1	0.1	0.1	0.1	0.1	0.1	25	25	15.5	25	
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	47	43	
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	



Table B5

Field ID	LocCode	Sampled Date-Time	Inorganic	Moisture Content	Organic										PAH/Phenols (SIM)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Inorganic		Moisture Content		THH G6-C10		THH G6-C10 less BTEX (F1)		THH G6-C9		THH >C10-C16		THH <C10-C16 less Naphthalene (F2)		THH <C16-C34		Naphthalene		THH >C34-C40		THH <C10-C40 (total) *		Acenaphthene		Acenaphthylene		Anthracene		Fluoranthene		Fluorene		Benz[a]anthracene		Benzofluoranthene		Benzofluoranthene		Chrysene		Dibenz[a,h]anthracene		Indeno[1,2,3-cd]pyrene		Phenanthrene		Pyrene		Sum of polycyclic aromatic hydrocarbons		Naphthalene		4,4'-DDE		p-BHC		Aldrin		Dieldrin		Atraphos methyl		p-BHC		Bromophenethyl		Carbophenothion		Chlordane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

[Filter]



Table B5

					Total Metals by ICP-AES					TPH					TRH - Semivolatile Fraction										TRH Volatiles/BTEX										Volatile					
					Chromium	Copper	Lead	Nickel	Zinc	TRH C15-C28	TRH C29-C36	TRH C10-C14	TRH C10-C36 (Total)	TRH C15-C28	TRH C29-C36	TRH C10-C14	TRH C10-C36 (Total)	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (Total)*	Toluene	TRH C6-C10	TRH C6-C10 less BTEX (F1)	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Sum of BTEX	Xylenes - Total*	TRH C6-C9	Naphthalene	Toluene	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Xylenes - Total*	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
EQL					2	5	5	2	5	50	50	20	50	100	100	50	50	50	100	100	50	50	0.5	10	10	0.2	0.5	0.5	0.5	0.2	0.5	10	1	0.1	0.1	0.1	0.1	0.2	0.1	0.3
NEPM (1999) EIL - Commercial/Industrial					680	290	1800	300	690																															
NEPM (1999) ESL - Commercial/Industrial (fine)																	170		2500	6600			135		215	95	185				95			135	95	185			95	
NEPM (1999) HSL D - Commercial/Industrial					3600	240000	1500	6000	400000																															
NEPM (1999) HSL D Comm/Indust - Vi Clay 0 to <1																		NL					NL		310	4	NL				NL	NL	NL	4	NL			NL		
NEPM (1999) HSL D Comm/Indust - Vi Clay 1 to <2																							NL		480	6	NL				NL	NL	NL	6	NL			NL		
NEPM (1999) HSL D Comm/Indust - Vi Clay 2 to <4																							NL		NL	9	NL				NL	NL	NL	9	NL			NL		
NEPM (1999) HSL D Comm/Indust - Vi Clay 4 m+																							NL		NL	NL	NL				NL	NL	NL	NL	NL			NL		
NEPM (1999) Management Limits - Commercial/Industrial																	1000		5000	10000				800																
NEPM (1999) Management Limits - Urban resident																	1000		3500	10000				800																
Field_ID	LocCode	Sampled_Date-Time																																						
BH46-V-B	BH46-V-B	26/05/2022		-	-	-	-	-	79	56	<20	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	
BH46-V-E	BH46-V-E	26/05/2022		-	-	-	-	-	190	120	41	351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
BH46-V-N	BH46-V-N	26/05/2022		-	-	-	-	-	<50	<50	<20	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
BH46-V-S	BH46-V-S	26/05/2022		-	-	-	-	-	100	73	21	194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
BH46-V-W	BH46-V-W	26/05/2022		-	-	-	-	-	<50	<50	<20	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
D01_220526	BH46-V-N	26/05/2022		-	-	-	-	-	54	<50	<20	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
LF-01	LF-01	26/05/2022		-	-	-	-	-	<50	<50	<20	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3		
T02_220526	T02	26/05/2022		53	22	8	21	80	-	<50	<50	<20	<50	<100	<100	<50	<50	<50	<100	<100	<50	<50	<0.5	<10	<10	<10	<0.2	<0.5	<0.5	<0.5	<0.2	<0.5	<10	<1	-	-	-	-		
TP46 SP-9 1	TP46 SP-9 1	12/05/2022		-	-	-	-	-	<50	<50	<20	<50	-	-	-	-	-	-	-	-	-	-	-	<0.5	<10	<10	<0.2	<0.5	<0.5	<0.5	<0.2	<0.5	<10	<1	-	-	-	-		
TP46 SP-9 2	TP46 SP-9 2	12/05/2022		-	-	-	-	-	<50	<50	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
TP46 SP-9 3	TP46 SP-9 3	12/05/2022		-	-	-	-	-	<50	<50	59	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Statistical Summary																																								
Number of Results	1	1	1	1	1	10	10	10	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	7	7	7	7	7		
Number of Detects	1	1	1	1	1	4	3	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Minimum Concentration	53	22	8	21	80	<50	<50	<20	<50	<100	<100	<50	<50	<50	<50	<100	<100	<50	<0.5	<10	<10	<0.2	<0.5	<0.5	<0.5	<0.2	<0.5	<10	<1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3					
Minimum Detect	53	22	8	21	80	54	56	21	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Maximum Concentration	53	22	8	21	80	190	120	59	351	<100	<100	<50	<50	<50	<50	<100	<100	<50	<0.5	<10	<10	<0.2	<0.5	<0.5	<0.5	<0.2	<0.5	<10	<1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3					
Average Concentration	53	22	8	21	80	57	42	23	94																															
Median Concentration	53	22	8	21	80	25	25	10	52	50	50	25	25	25	25	50	50	25	0.25	5	5	0.1	0.25	0.25	0.25	0.1	0.25	5	0.5	0.05	0.05	0.05	0.1	0.05	0.15					
Standard Deviation						54	32	19	106																															
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

		Use and Disposal of Biosolids Products (NSW EPA 2000)		<100 MPN* <1,000 MPN 50 g	
Sample ID	Date	Lab Report	E.Coli (MPN/g)	Thermotolerant Coliforms (MPN/g)	Salmonella /25g
SEPTIC PIT-1 EW-1	31/01/2022	EUAUTWU-00007944	31	140	Not detected
SEPTIC PIT-1 EW-2	31/01/2022	EUAUTWU-00007944	20	73	Not detected
SEPTIC PIT-1 SW-1	31/01/2022	EUAUTWU-00007944	40	96	Not detected
SEPTIC PIT-1 SW-2	31/01/2022	EUAUTWU-00007944	86	86	Not detected
SEPTIC PIT-1 NW-1	21/03/2022	EUAUTWU-00007944	20	41	Not detected
SEPTIC PIT-1 NW-2	2/06/2021	EUAUTWU-00007944	30	130	Not detected
SEPTIC PIT-1 BASE	2/06/2021	EUAUTWU-00007944	51	190	Not detected
SEPTIC PIT-2 WW-1	2/06/2021	EUAUTWU-00007944	10	10	Not detected
SEPTIC PIT-2 WW-2	2/06/2021	EUAUTWU-00007944	20	30	Not detected
SEPTIC PIT-2 SW-1	2/06/2021	EUAUTWU-00007944	10	41	Not detected
SEPTIC PIT-2 SW-2	2/06/2021	EUAUTWU-00007944	31	41	Not detected
SEPTIC PIT-2 NW-1	7/12/2022	EUAUTWU-00007944	31	41	Not detected
SEPTIC PIT-2 NW-2	7/12/2022	EUAUTWU-00007944	20	52	Not detected
SEPTIC PIT-2 BASE	7/12/2022	EUAUTWU-00007944	20	52	Not detected
MPN = most probably number					

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 ERM Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
DL1-1	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-2	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-3	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-4	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-5	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-6	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-7	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-8	1/02/2021	ASET90945	DL1 fill material	nd	nd	nd
DL1-9	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-10	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-11	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-12	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-13	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-14	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-15	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
DL1-16	8/02/2021	ASET91125	DL1 fill material	nd	nd	nd
S19-1	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-2	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-3	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-4	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-5	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-6	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-7	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-8	4/02/2021	771983	Clays in grid S19	nd	nd	nd
S19-8A	4/02/2021	771983	Clays in grid S19	nd	nd	nd
Silt 1	27/11/2020	ASET89997	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 2	27/11/2020	ASET89997	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 3	27/11/2020	ASET89997	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 4	27/11/2020	ASET89997	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 5	27/11/2020	ASET89997	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 6	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 7	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 8	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 9	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 10	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 11	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 12	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 13	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 14	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
Silt 15	11/02/2021	ASET91209	Dam silt from Stage 3 main Dam & Stage 2C Dam	nd	nd	nd
H8SP-1	5/03/2021	ASET91693	Ardee Civil Stockpile	nd	nd	nd
H8SP-2	5/03/2021	ASET91693	Ardee Civil Stockpile	nd	nd	nd
H8SP-3	5/03/2021	ASET91693	Ardee Civil Stockpile	nd	nd	nd
H9SP-1	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-2	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-3	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-4	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-5	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-6	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
H9SP-7	5/03/2021	ASET91693	Crushed rock	nd	nd	nd
O15-1	20/04/2021	ASET92752	Natural Clay Shales	nd	nd	nd
O15-2	20/04/2021	ASET92752	Natural Clay Shales	nd	nd	nd
O15-3	20/04/2021	ASET92752	Natural Clay Shales	nd	nd	nd
O15-4	20/04/2021	ASET92752	Natural Clay Shales	nd	nd	nd
O15-5	20/04/2021	ASET92752	Natural Clay Shales	nd	nd	nd
N14SP-1	20/04/2021	ASET92753	Natural Clays	nd	nd	nd
N14SP-2	20/04/2021	ASET92753	Natural Clays	nd	nd	nd
N14SP-3	20/04/2021	ASET92753	Natural Clays	nd	nd	nd
N14SP-4	20/04/2021	ASET92753	Natural Clays	nd	nd	nd
N14SP-5	20/04/2021	ASET92753	Natural Clays	nd	nd	nd
O18-1	17/03/2021	ASET91991	Blue Shales	nd	nd	nd
O18-2	17/03/2021	ASET91991	Blue Shales	nd	nd	nd
O18-3	17/03/2021	ASET91991	Blue Shales	nd	nd	nd
O18-4	17/03/2021	ASET91991	Blue Shales	nd	nd	nd
O18-5	17/03/2021	ASET91991	Blue Shales	nd	nd	nd
P14 Clay -1	12/04/2021	ASET92496	P14 Clay	nd	nd	nd
P14 Clay -2	12/04/2021	ASET92496	P14 Clay	nd	nd	nd
P14 Clay -3	12/04/2021	ASET92496	P14 Clay	nd	nd	nd
P14 Clay -4	12/04/2021	ASET92496	P14 Clay	nd	nd	nd
P14 Clay -5	12/04/2021	ASET92496	P14 Clay	nd	nd	nd
P18-1	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-2	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-3	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-4	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-5	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-6	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
P18-7	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-8	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-9	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-10	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-11	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-12	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-13	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-14	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-15	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-16	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-17	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-18	26/04/2021	ASET92868	Natural Clays Shales	nd	nd	nd
P18-19	29/04/2021	ASET92980	Natural Clays Shales	nd	nd	nd
P18-20	29/04/2021	ASET92980	Natural Clays Shales	nd	nd	nd
R18 SP-1	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
R18 SP-2	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
R18 SP-3	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
R18 SP-4	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
R18 SP-5	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
R18 SP-6	1/03/2021	ASET91568	Fill from Grid L14 (Dam 8)	nd	nd	nd
Silt-1	29/04/2021	ASET92985	Silt from PGH dams	nd	nd	nd
Silt-2	29/04/2021	ASET92985	Silt from PGH dams	nd	nd	nd
Silt-3	29/04/2021	ASET92985	Silt from PGH dams	nd	nd	nd
Silt-4	29/04/2021	ASET92985	Silt from PGH dams	nd	nd	nd
Silt-5	29/04/2021	ASET92985	Silt from PGH dams	nd	nd	nd
Silt -1	12/04/2021	ASET92497	Silt from PGH dams	nd	nd	nd
Silt -2	12/04/2021	ASET92497	Silt from PGH dams	nd	nd	nd
Silt -3	12/04/2021	ASET92497	Silt from PGH dams	nd	nd	nd
Silt -4	12/04/2021	ASET92497	Silt from PGH dams	nd	nd	nd
Silt -5	12/04/2021	ASET92497	Silt from PGH dams	nd	nd	nd
O15-6	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-7	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-8	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-9	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-10	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-11	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-12	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-13	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-14	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-15	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-16	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-17	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-18	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-19	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-20	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-21	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-22	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-23	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-24	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O15-25	12/05/2021	ASET93294	Natural Clay Shales	nd	nd	nd
O13 SP-1	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-2	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-3	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-4	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-5	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-6	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-7	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-8	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-9	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
O13 SP-10	16/04/2021	ASET92653	Natural Clay Shales	nd	nd	nd
N14SP-1	20/04/2021	ASET92752	Natural Clays	nd	nd	nd
N14SP-2	20/04/2021	ASET92752	Natural Clays	nd	nd	nd
N14SP-3	20/04/2021	ASET92752	Natural Clays	nd	nd	nd
N14SP-4	20/04/2021	ASET92752	Natural Clays	nd	nd	nd
N14SP-5	20/04/2021	ASET92752	Natural Clays	nd	nd	nd
O15-26	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-27	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-28	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-29	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-30	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-31	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-32	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-33	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-34	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
O15-35	13/05/2021	ASET93335	Natural Clay Shales	nd	nd	nd
P14-6	14/05/2021	ASET93338	P14 Clay	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
P14-7	14/05/2021	ASET93336	P14 Clay	nd	nd	nd
P14-8	14/05/2021	ASET93336	P14 Clay	nd	nd	nd
P14-9	14/05/2021	ASET93336	P14 Clay	nd	nd	nd
P14-10	14/05/2021	ASET93336	P14 Clay	nd	nd	nd
M15-1	19/05/2021	ASET93493	Clays in Grid M15	nd	nd	nd
M15-2	19/05/2021	ASET93493	Clays in Grid M15	nd	nd	nd
M15-3	19/05/2021	ASET93493	Clays in Grid M15	nd	nd	nd
M15-4	19/05/2021	ASET93493	Clays in Grid M15	nd	nd	nd
M15-5	19/05/2021	ASET93493	Clays in Grid M15	nd	nd	nd
R16-6	21/05/2021	ASET93609	R16 Shales	nd	nd	nd
R16-7	21/05/2021	ASET93609	R16 Shales	nd	nd	nd
R16-8	21/05/2021	ASET93609	R16 Shales	nd	nd	nd
R16-9	21/05/2021	ASET93609	R16 Shales	nd	nd	nd
R16-10	21/05/2021	ASET93609	R16 Shales	nd	nd	nd
L15-1	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-2	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-3	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-4	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-5	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-6	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-7	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-8	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-9	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
L15-10	4/06/2021	ASET94015	Shales and clay	nd	nd	nd
R16-11	8/06/2021	ASET94014	R16 Shales	nd	nd	nd
R16-12	8/06/2021	ASET94014	R16 Shales	nd	nd	nd
R16-13	8/06/2021	ASET94014	R16 Shales	nd	nd	nd
R16-14	8/06/2021	ASET94014	R16 Shales	nd	nd	nd
R16-15	8/06/2021	ASET94014	R16 Shales	nd	nd	nd
N16-1	9/06/2021	ASET94051	N16 Clays	nd	nd	nd
N16-2	9/06/2021	ASET94051	N16 Clays	nd	nd	nd
N16-3	9/06/2021	ASET94051	N16 Clays	nd	nd	nd
N16-4	9/06/2021	ASET94051	N16 Clays	nd	nd	nd
N16-5	9/06/2021	ASET94051	N16 Clays	nd	nd	nd
I16 SP-1	16/06/2021	ASET94196	I16 Stockpiled material	nd	nd	nd
I16 SP-2	16/06/2021	ASET94196	I16 Stockpiled material	nd	nd	nd
I16 SP-3	16/06/2021	ASET94196	I16 Stockpiled material	nd	nd	nd
I16 SP-4	16/06/2021	ASET94196	I16 Stockpiled material	nd	nd	nd
I16 SP-5	16/06/2021	ASET94196	I16 Stockpiled material	nd	nd	nd
M15-6	18/06/2021	ASET94269	M16 Clays	nd	nd	nd
M15-7	18/06/2021	ASET94269	M16 Clays	nd	nd	nd
M15-8	18/06/2021	ASET94269	M16 Clays	nd	nd	nd
M15-9	18/06/2021	ASET94269	M16 Clays	nd	nd	nd
M15-10	18/06/2021	ASET94269	M16 Clays	nd	nd	nd
Q16-1	18/06/2021	ASET94269	Q16 Shales	nd	nd	nd
Q16-2	18/06/2021	ASET94269	Q16 Shales	nd	nd	nd
Q16-3	18/06/2021	ASET94269	Q16 Shales	nd	nd	nd
Q16-4	18/06/2021	ASET94269	Q16 Shales	nd	nd	nd
Q16-5	18/06/2021	ASET94269	Q16 Shales	nd	nd	nd
R16-16	18/06/2021	ASET94269	R16 Shales	nd	nd	nd
R16-17	18/06/2021	ASET94269	R16 Shales	nd	nd	nd
R16-18	18/06/2021	ASET94269	R16 Shales	nd	nd	nd
R16-19	18/06/2021	ASET94269	R16 Shales	nd	nd	nd
R16-20	18/06/2021	ASET94269	R16 Shales	nd	nd	nd
P19-1	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-2	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-3	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-4	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-5	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-6	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-7	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-8	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-9	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
P19-10	30/06/2021	ASET94544	Brown silty clays	nd	nd	nd
R16-21	8/07/2021	ASET94779	R16 Shales	nd	nd	nd
R16-22	8/07/2021	ASET94779	R16 Shales	nd	nd	nd
R16-23	8/07/2021	ASET94779	R16 Shales	nd	nd	nd
R16-24	8/07/2021	ASET94779	R16 Shales	nd	nd	nd
R16-25	8/07/2021	ASET94779	R16 Shales	nd	nd	nd
O15-36	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-37	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-38	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-39	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-40	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-41	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-42	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd

 ERM Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
O15-43	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-44	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-45	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-46	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-47	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-48	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-49	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-50	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-51	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-52	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-53	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-54	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O15-55	9/07/2021	ASET94778	Natural clay shales	nd	nd	nd
O16-1	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-2	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-3	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-4	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-5	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-6	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-7	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-8	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-9	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
O16-10	26/07/2021	ASET95134	O16 Shales	nd	nd	nd
R16-26	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-27	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-28	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-29	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-30	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-31	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-32	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-33	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-34	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
R16-35	26/07/2021	ASET95134	R16 Shales	nd	nd	nd
L13-1	30/07/2021	ASET95196	L13 Shales	nd	nd	nd
L13-2	30/07/2021	ASET95196	L13 Shales	nd	nd	nd
L13-3	30/07/2021	ASET95196	L13 Shales	nd	nd	nd
L13-4	30/07/2021	ASET95196	L13 Shales	nd	nd	nd
L13-5	30/07/2021	ASET95196	L13 Shales	nd	nd	nd
Silt-21	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-22	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-23	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-24	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-25	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-26	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-27	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-28	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-29	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-30	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-31	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-32	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-33	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-34	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-35	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-36	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-37	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-38	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-39	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-40	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-41	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-42	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-43	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-44	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
Silt-45	19/08/2021	ASET95566	Silt from northern dams	nd	nd	nd
L15-11	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-12	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-13	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-14	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-15	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-16	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-17	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-18	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-19	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
L15-20	10/09/2021	ASET96085	Shale L15 Grid	nd	nd	nd
Silt-91	8/09/2021	ASET96021	Silt		nd	nd
Silt-92	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-93	8/09/2021	ASET96021	Silt	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
Silt-94	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-95	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-96	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-97	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-98	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-99	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-100	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-101	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-102	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-103	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-104	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-105	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-106	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-107	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-108	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-109	8/09/2021	ASET96021	Silt	nd	nd	nd
Silt-110	8/09/2021	ASET96021	Silt	nd	nd	nd
R16-36	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-37	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-38	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-39	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-40	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-41	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-42	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-43	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-44	6/09/2021	ASET95913	Shale	nd	nd	nd
R16-45	6/09/2021	ASET95913	Shale	nd	nd	nd
Silt-81	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-82	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-83	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-84	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-85	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-86	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-87	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-88	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-89	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-90	6/09/2021	ASET95912	Silt	nd	nd	nd
Silt-56	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-57	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-58	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-59	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-60	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-61	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-62	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-63	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-64	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-65	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-66	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-67	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-68	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-69	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-70	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-71	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-72	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-73	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-74	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-75	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-76	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-77	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-78	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-79	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-80	3/09/2021	ASET95869	Silt	nd	nd	nd
Silt-46	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-47	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-48	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-49	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-50	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-51	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-52	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-53	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-54	30/08/2021	ASET95848	Silt	nd	nd	nd
Silt-55	30/08/2021	ASET95848	Silt	nd	nd	nd
L17-11	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-12	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-13	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-14	27/08/2021	ASET95725	Shale	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
L17-15	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-16	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-17	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-18	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-19	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-20	27/08/2021	ASET95725	Shale	nd	nd	nd
L17-1	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-2	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-3	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-4	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-5	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-6	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-7	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-8	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-9	23/08/2021	ASET95707	Shale	nd	nd	nd
L17-10	23/08/2021	ASET95707	Shale	nd	nd	nd
R16-46	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-47	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-48	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-49	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-50	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-51	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-52	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-53	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-54	6/10/2021	ASET96601	Shale	nd	nd	nd
R16-55	6/10/2021	ASET96601	Shale	nd	nd	nd
M19-1	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-2	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-3	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-4	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-5	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-6	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-7	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-8	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-9	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M19-10	4/11/2021	ASET97234	Brick fill	nd	nd	nd
M18-1	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-2	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-3	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-4	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-5	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-6	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-7	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-8	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-9	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-10	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-11	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-12	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-13	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-14	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-15	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-16	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-17	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-18	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-19	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
M18-20	29/10/2021	ASET97134	Clay shales from factory footprint	nd	nd	nd
R19-1	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-2	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-3	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-4	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-5	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-6	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-7	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-8	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-9	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-10	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-11	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-12	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-13	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-14	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-15	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-16	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-17	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-18	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-19	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd
R19-20	27/10/2021	ASET97054	Shales from Below ATA	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
T17-1	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-2	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-3	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-4	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-5	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-6	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-7	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-8	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-9	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
T17-10	17/11/2021	ASET97500	Clay / topsoil stockpile near east bundary ATA	nd	nd	nd
K15-1	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-2	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-3	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-4	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-5	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-6	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-7	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-8	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-9	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
K15-10	17/11/2021	ASET97500	Dam 8 Clays underlying silt	nd	nd	nd
M19-11	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-12	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-13	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-14	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-15	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-16	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-17	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-18	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-19	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M19-20	17/11/2021	ASET97500	Brick fill	nd	nd	nd
M18-21	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-22	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-23	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-24	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-25	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-26	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-27	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-28	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-29	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
M18-30	17/11/2021	ASET97500	Clay shales from factory footprint	nd	nd	nd
T16-1	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-2	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-3	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-4	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-5	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-6	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-7	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-8	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-9	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-10	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-11	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-12	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-13	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-14	8/12/2021	ASET98014	Clays	nd	nd	nd
T16-15	8/12/2021	ASET98014	Clays	nd	nd	nd
T18-1	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-2	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-3	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-4	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-5	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-6	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-7	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-8	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-9	9/12/2021	ASET98015	Shales	nd	nd	nd
T18-10	9/12/2021	ASET98015	Shales	nd	nd	nd
Q18-16	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-17	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-18	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-19	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-20	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-21	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-22	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-23	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-24	12/01/2022	ASET98445	Shales	nd	nd	nd
Q18-25	12/01/2022	ASET98445	Shales	nd	nd	nd
N13-1	24/01/2022	ASET98667	Clays	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
N13-2	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-3	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-4	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-5	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-6	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-7	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-8	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-9	24/01/2022	ASET98667	Clays	nd	nd	nd
N13-10	24/01/2022	ASET98667	Clays	nd	nd	nd
N15-1	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-2	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-3	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-4	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-5	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-6	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-7	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-8	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-9	18/02/2022	ASET99231	Clays	nd	nd	nd
N15-10	18/02/2022	ASET99231	Clays	nd	nd	nd
L19-10	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-11	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-12	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-13	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-14	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-15	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-16	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-17	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-18	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-19	10/02/2022	ASET99031	Brick fill	nd	nd	nd
L19-20	10/02/2022	ASET99031	Brick fill	nd	nd	nd
P13-1	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-2	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-3	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-4	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-5	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-6	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-7	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-8	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-9	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-10	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-11	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-12	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-13	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-14	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-15	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-16	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-17	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-18	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-19	10/02/2022	ASET99031	Clay	nd	nd	nd
P13-20	10/02/2022	ASET99031	Clay	nd	nd	nd
L19-1	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-2	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-3	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-4	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-5	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-6	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-7	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-8	31/01/2022	ASET99031	Brick fill	nd	nd	nd
L19-9	31/01/2022	ASET99031	Brick fill	nd	nd	nd
Q18-26	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-27	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-28	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-29	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-30	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-31	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-32	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-33	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-34	31/01/2022	ASET99031	Shales	nd	nd	nd
Q18-35	31/01/2022	ASET99031	Shales	nd	nd	nd
Lidcombe 4	12/11/2021	ASET97501	Shales	nd	nd	nd
Lidcombe 5	12/11/2021	ASET97501	Shales	nd	nd	nd
Q18-1	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-2	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-3	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-4	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-5	16/12/2021	ASET98167	Shales	nd	nd	nd

 ERM Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
Q18-6	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-7	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-8	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-9	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-10	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-11	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-12	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-13	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-14	16/12/2021	ASET98167	Shales	nd	nd	nd
Q18-15	16/12/2021	ASET98167	Shales	nd	nd	nd
Silt - 111	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 112	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 113	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 114	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 115	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 116	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 117	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 118	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 119	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 120	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 121	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 122	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 123	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 124	11/03/2022	ASET99851	ITP 102	nd	nd	nd
Silt - 125	11/03/2022	ASET99851	ITP 102	nd	nd	nd
N13-11	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-12	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-13	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-14	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-15	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-16	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-17	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-18	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-19	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
N13-20	11/03/2022	ASET99851	Shaly Clays	nd	nd	nd
M19 Clays-1	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-2	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-3	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-4	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-5	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-6	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-7	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-8	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-9	21/03/2022	ASET99791	Clays	nd	nd	nd
M19 Clays-10	21/03/2022	ASET99791	Clays	nd	nd	nd
Silt-126	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-127	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-128	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-129	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-130	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-131	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-132	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-133	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-134	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-135	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-136	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-137	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-138	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-139	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-140	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-141	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-142	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-143	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-144	28/04/2022	ASET100837	ITP 107	nd	nd	nd
Silt-145	28/04/2022	ASET100837	ITP 107	nd	nd	nd
R17-1	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-2	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-3	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-4	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-5	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-6	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-7	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-8	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-9	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-10	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-11	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd

Health Screening Levels Res A (w/w %)				0.001%	0.01%	0.01%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Site Sourced fill						
R17-12	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-13	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-14	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-15	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-16	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-17	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-18	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-19	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-20	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-21	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-22	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-23	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-24	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
R17-25	29/04/2022	ASET100838	ITP 107 Red Clay Grey Shales Northern Unprocessed SP	nd	nd	nd
P13-21	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-22	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-23	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-24	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-25	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-26	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-27	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-28	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-29	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-30	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-31	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-32	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-33	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-34	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-35	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-36	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-37	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-38	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-39	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-40	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-41	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-42	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-43	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-44	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P13-45	28/04/2022	ASET100839	ITP 107 Red Clay Grey Shales Southern Unprocessed SP	nd	nd	nd
P15-1	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-2	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-3	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-4	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-5	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-6	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-7	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-8	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-9	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P15-10	21/06/2022	ASET102263	P15 Brown Shaley Clays	nd	nd	nd
P16-1	17/06/2021	ASET94268	P16 Brown Shaley Clays	nd	nd	nd
P16-2	17/06/2021	ASET94268	P16 Brown Shaley Clays	nd	nd	nd
P16-3	17/06/2021	ASET94268	P16 Brown Shaley Clays	nd	nd	nd
P16-4	17/06/2021	ASET94268	P16 Brown Shaley Clays	nd	nd	nd
P16-5	17/06/2021	ASET94268	P16 Brown Shaley Clays	nd	nd	nd

 Health Screening Levels Comm/Ind (w/w %) 0.001% 0.05% 0.05%						
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
TP48-N	31/01/2022	ASET98809	UF3	nd	nd	nd
TP48-E	31/01/2022	ASET98809	UF3	nd	nd	nd
TP48-S	31/01/2022	ASET98809	UF3	nd	nd	nd
TP48-W	31/01/2022	ASET98809	UF3	nd	nd	nd
TP48-B	21/03/2022	ASET99792	UF3	nd	nd	nd
Wall-1	2/06/2021	ASET93923	DL4	nd	nd	nd
Wall-2	2/06/2021	ASET93923	DL4	nd	nd	nd
Base upper-1	2/06/2021	ASET93923	DL4	nd	nd	nd
Base upper-2	2/06/2021	ASET93923	DL4	nd	nd	nd
Base lower-1	2/06/2021	ASET93923	DL4	nd	nd	nd
Base lower-2	2/06/2021	ASET93923	DL4	nd	nd	nd
TP55-FP1	7/12/2022	ASET106675	UF3	nd	nd	nd
TP55-FP2	7/12/2022	ASET106675	UF3	nd	nd	nd
TP55-FP3	7/12/2022	ASET106675	UF3	nd	nd	nd
TP55-FP4	7/12/2022	ASET106675	UF3	nd	nd	nd

 ERM Health Screening Levels Comm/ Ind (w/w %)				0.001%	0.05%	0.05%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Testpit Samples						
DG-TP1-0.3	4/02/2021	ASET91044	Data Gap Test Pit	nd	nd	nd
DG-TP2-0.3	4/02/2021	ASET91044	Data Gap Test Pit	nd	nd	nd
DG-TP2-0.4	4/02/2021	ASET91044	Data Gap Test Pit	nd	nd	nd
DG-TP2-0.8	4/02/2021	ASET91044	Data Gap Test Pit	nd	nd	nd
DG-TP2-2m	4/02/2021	ASET91044	Data Gap Test Pit	nd	nd	nd
DG TP3-0.2	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DG TP4-0.2	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DG TP5-0.3	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DG TP5-0.6	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DG TP5-3.0	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DG TP5-4m	11/02/2021	ASET91210	Data Gap Test Pit	nd	nd	nd
DGTP6-0.3	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP6-0.7	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP6-1.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP6-2m	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP7-0.3	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP7-0.6	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP7-1.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP7-2m	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP8-0.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP8-0.4	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP8-1m	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP8-2.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP9-3.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP10-3.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP11-3.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP12-3.5	17/03/2021	ASET91992	Data Gap Test Pit	nd	nd	nd
DGTP14-0.5	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP14-3.5	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP14-4	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP15-0.5	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP15-3.5	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP15-4	12/04/2021	ASET92498	Data Gap Test Pit	nd	nd	nd
DGTP19-0.5	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP19-1	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP19-1.6	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP20-0.4	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP20-0.8	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP20-1.5	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP77-0.1	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP78-0.1	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP79-0.25	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP79-1	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP79-1.6	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP80-0.2	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP80-0.1	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP90-0.5	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP90-1m	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP90-1.5	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP90-2	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DGTP90-2.5	19/04/2021	ASET92672	Data Gap Test Pit	nd	nd	nd
DG-TP65-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP63-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP73-0.2	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP72-0.3	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP72-1.0	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP70-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP70-1.2	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP61-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP55-0.5	20/04/2021	ASET92751	Data Gap Test Pit	0.019	nd	nd
DG-TP55-1m	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP58-0.3	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP48-0.1	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP48-1.0	20/04/2021	ASET92751	Data Gap Test Pit	0.005	nd	nd
DG-TP49-0.3	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP49-0.8	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP49-2.0	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP50-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP50-0.8	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP18-0.1	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP17-0.1	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP16-0.1	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP13-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP21-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP57-0.3	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP65-0.5	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP52-0.3	20/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd

			Health Screening Levels Comm/ Ind (w/w %)	0.001%	0.05%	0.05%
Sample ID	Date	Lab Report	Comment	Asbestos in soil		ACM retained on sieve
				AF/FA	Bonded	Bonded
Testpit Samples						
DG-TP83-0.6	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP84-1m	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP51-0.5	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP51-2.0	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP54-0.5	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP54-2.0	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP53-1.0	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
DG-TP60-1.0	21/04/2021	ASET92751	Data Gap Test Pit	nd	nd	nd
BH69_0.3	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH69_1.3	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH71_0.3	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH71_1.3	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH68_0.4	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH68_1.1	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH46_0.8	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH46_1.7	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH45_0.3	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
BH45_0.8	26/04/2021	ASET92866	Data Gap Borehole	nd	nd	nd
DGTP22-0.4	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DGTP22-2m	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DGTP23-3m	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DGTP25-0.3	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DGTP25-0.8	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DGTP25-1.2	29/04/2021	ASET92978	Data Gap Test Pit	nd	nd	nd
DG-TP50-2.0	20/04/2021	ASET93293	Data Gap Test Pit	nd	nd	nd
DG-TP83-1m	21/04/2021	ASET93293	Data Gap Test Pit	nd	nd	nd
DG-TP83-0.3	21/04/2021	ASET93293	Data Gap Test Pit	nd	nd	nd
DG-TP84-0.25	21/04/2021	ASET93293	Data Gap Test Pit	nd	nd	nd
DG-TP84-0.6	21/04/2021	ASET93293	Data Gap Test Pit	nd	nd	nd
DG-TP24-0.2	19/05/2021	ASET93492	Data Gap Test Pit	nd	nd	nd
DG-TP26-0.2	19/05/2021	ASET93492	Data Gap Test Pit	nd	nd	nd
DG-TP27-0.1	19/05/2021	ASET93492	Data Gap Test Pit	nd	nd	nd
DGTP30-0.2	19/05/2021	ASET93492	Data Gap Test Pit	nd	nd	nd
DGTP28-0.3	4/06/2021	ASET94013	Data Gap Test Pit	nd	nd	nd
DGTP32-0.2	4/06/2021	ASET94013	Data Gap Test Pit	nd	nd	nd
DG-TP85-0.3	8/06/2021	ASET94014	Data Gap Test Pit	nd	nd	nd
DG-TP35-1	8/06/2021	ASET94014	Data Gap Test Pit	nd	nd	nd
DG-TP35-2.5	8/06/2021	ASET94014	Data Gap Test Pit	nd	nd	nd
DGTP35-0.3	29/06/2021	ASET94052	Data Gap Test Pit	nd	nd	nd
DGTP38-0.2	29/06/2021	ASET94052	Data Gap Test Pit	nd	nd	nd
DGTP38-0.7	29/06/2021	ASET94052	Data Gap Test Pit	nd	nd	nd
DGTP59-0.2	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP62-0.1	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP66-0.1	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP66-0.5	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP64-0.5	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP64-1.4	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP56-0.3	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP86-0.2	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP94-0.3	29/06/2021	ASET94478	Data Gap Test Pit	nd	nd	nd
DGTP29-0.1	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP31-0.2	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP33-0.1	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP34-0.3	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP36-0.2	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP36-0.5	7/07/2021	ASET94706	Data Gap Test Pit	nd	nd	nd
DGTP39-0.1	23/08/2021	ASET95708	Data Gap Test Pit	nd	nd	nd
DGTP40-0.3	23/08/2021	ASET95708	Data Gap Test Pit	nd	nd	nd
DGTP40-1m	23/08/2021	ASET95708	Data Gap Test Pit	nd	nd	nd
DGTP74-0.1	9/09/2021	ASET96111	Data Gap Test Pit	nd	nd	nd
DGTP75-0.1	9/09/2021	ASET96111	Data Gap Test Pit	nd	nd	nd
DGTP75-0.3	9/09/2021	ASET96111	Data Gap Test Pit	nd	nd	nd
DGTP 41-0.3	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP41-0.6	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP42-0.2	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP42-1.2	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP43-0.3	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP43-0.7	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP96-0.6	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP37-0.3	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP37-0.6	10/09/2021	ASET96126	Data Gap Test Pit	nd	nd	nd
DGTP37-1.5	10/09/2021	ASET96126	Data Gap Test Pit - Fragment only	-	-	0.0123

				Filtered Total Phosphorus as P	Nitrogen	Phenols	TRH						BTEX						Halogenated Benzenes														
					Nitrogen (Organic)	Phenolics Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Naphthalene)	C16-C34	C34-C40	C10-C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	Hexachlorobenzene	Silicon as SiO2	Nitrite + Nitrate as N	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	BOD	Cations Total	Chloride	
				mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	mg/L	meq/L	mg/L	
EQL				0.01	0.2	50	20	20	50	100	100	100	100		1	1	2		2	1		0.2	0.1	0.01	20	10	20	20	0.01	0.01	2	0.01	1
ANZG (2018) Freshwater - Slightly to moderately disturbed ecosystems								20		100	100	100		950	180	80		350				0.05											
ANZG (2018) Marine Water - Slightly to moderately disturbed ecosystems														500	180	80		350				0.05											
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m								NL		NL				30000	NL	NL				NL													
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m								NL		NL				30000	NL	NL				NL													
NEPM (1999) HSL D Comm/Indust - Clay 8 m+								NL		NL				35000	NL	NL				NL													

Field_ID	LocCode	WellCode	Sampled_Date-Time	-	-	<50	<20	<20	790	790	<100	<100	790	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	760	<10	<20	760	8.7	196.2	<20	210.2	6400
S3-01	S3-01		12/10/2022	-	-	<50	<20	<20	1030	1030	380	200	1610	<1	<2	<2	<2	<2	<2	<1	<0.5	65.9	0.02	-	-	-	-	8.76	-	11	-	6660
S3-01	S3-01		31/01/2023	-	-	<50	<20	<20	70	70	<100	<100	<100	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	480	<10	<20	480	9.5	224.4	5.4	193.9	7600
S3-01	S3-01		23/02/2023	-	3.9	<50	<20	<20	270	270	100	<100	370	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	590	<10	<20	590	7.1	168.1	9.7	26	5500
S3-02	S3-02		12/10/2022	-	-	<50	<20	<20	190	190	300	<100	490	<1	<1	<1	<2	<1	<3	-	<0.2	-	0.25	820	<10	<20	820	9.2	221.1	<5	280.8	7200
S3-02	S3-02		23/11/2022	0.14	-	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	29.1	0.01	-	-	-	-	8.59	-	10	-	7680
S3-02	S3-02		31/01/2023	-	-	<50	<20	<20	260	260	<100	<100	260	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	590	<10	<20	590	9	268.8	7.9	225.4	9100
S3-02	S3-02		23/02/2023	-	1	<50	<20	<20	110	110	<100	<100	110	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	500	<10	<20	500	12	264.1	6.2	55.3	9000
S3-03	S3-03		12/10/2022	-	-	<50	<20	<20	150	150	<100	<100	150	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.25	510	<10	<20	510	13	321.5	<20	331.1	11000
S3-03	S3-03		23/11/2022	0.21	-	<50	<20	<20	160	160	540	250	950	<1	<2	<2	<2	<2	<2	<1	<0.5	34	<0.01	-	-	-	-	12.5	-	19	-	9120
S3-03	S3-03		31/01/2023	-	-	<50	<20	<20	50	50	<100	<100	<100	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.25	450	<10	<20	450	13	319.3	<5	264.9	11000
S3-03	S3-03		23/02/2023	-	2.7	<50	<20	<20	140	140	1400	200	1740	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	570	<10	<20	570	8.3	234.3	<5	51.5	7800
S3-04	S3-04		12/10/2022	-	-	<50	<20	<20	230	230	<100	<100	230	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	1200	<10	<20	1200	7.7	210.8	9.9	217.2	6600
S3-04	S3-04		23/11/2022	<0.02	-	<50	<20	<20	<100	<100	<100	<100	<100	<1	<2	<2	<2	<2	<2	<1	<0.5	19.2	0.01	-	-	-	-	7.12	-	8	-	6330
S3-04	S3-04		31/01/2023	-	-	<50	<20	<20	130	130	<100	<100	130	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	630	<10	<20	630	7.3	224.7	9.6	187.4	7500
S3-04	S3-04		23/02/2023	-	2.3	<50	<20	<20	210	210	200	<100	410	<1	<1	<1	<2	<1	<3	-	<0.2	-	<0.05	710	<10	<20	710	6.6	178.5	<5	28.4	5800

Statistical Summary																																
Number of Results	4	4	16	16	16	16	16	16	16	16	16	16	16	16	16	16	4	16	4	16	12	12	12	12	16	12	16	12	16	12	16	
Number of Detects	3	4	0	0	0	14	6	3	12	0	0	0	0	0	0	0	0	4	4	12	0	0	12	16	12	10	12	16	12	16		
Minimum Concentration	<0.02	1	<50	<20	<20	50	50	<100	<100	<1	<1	<1	<2	<1	<2	<1	<0.2	19.2	<0.01	450	<10	<20	450	6.6	168.1	<5	26	5500	26	5500		
Minimum Detect	0.14	1	ND	ND	ND	50	50	100	200	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.2	0.01	450	ND	ND	450	6.6	168.1	5.4	26	5500	
Maximum Concentration	0.37	3.9	<50	<20	<20	1030	1030	1400	250	1740	ND	ND	<2	<2	<2	<3	<1	<0.5	65.9	0.25	1200	<10	<20	1200	13	321.5	<20	331.1	11000	331.1	11000	
Maximum Detect	0.37	3.9	ND	ND	ND	1030	1030	1400	250	1740	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	65.9	0.25	1200	ND	ND	1200	13	321.5	19	331.1	11000	
Average Concentration	0.18	2.5	25	10	10	243	243	214	81	465	0.5	0.63	0.63	1	0.63	1.4	0.5	0.14	37	0.048	651	5	10	651	9.3	236	7.9	173	7768	7768	7768	
Median Concentration	0.175	2.5	25	10	10	155	155	50	50	245	0.5	0.5	0.5	1	0.5	1.5	0.5	0.1	31.55	0.025	590	5	10	590	8.73	224.55	8.8	202.05	7550	7550	7550	
Standard Deviation	0.15	1.2	0	0	0	273	273	349	68	542	0	0.22	0.22	0	0.22	0.22	0	0.067	20	0.065	207	0	0	207	2.2	49	4.3	106	1673	1673	1673	
Number of Guideline Exceedances	0	0	0	0	0	0	12	6	3	0	0	0	0	0	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	12	6	3	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	CO ₂	Electrical conductivity *(lab)	Fluoride	% Ionic Balance	Yieldable Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Phosphate (as P)	pH (Lab)	Sodium	Sodium (Filtered)	Sulphate	Sulphur as S	TDS	TOC	TSS	Aluminium	Aluminium (Filtered)	Arsenic	Arsenic (Filtered)	Barium	Barium (Filtered)	Cadmium	Cadmium (Filtered)	Calcium	Calcium (Filtered)	Chromium (III+VI)	Chromium (III+VI) (Filtered)	Cobalt
	mg/L	uS/cm	mg/L	%	mg/L	mg/L	mg/L	µg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
EOL	10	10	0.1	0.01	0.1	0.01	0.01	100	0.01	0.1	0.5	0.5	1	1	10	1	5	0.0008	0.01	0.001	0.001	0.02	0.001	0.0002	0.0001	0.5	0.5	0.001	0.001	
ANZG (2018) Freshwater - Slightly to moderately disturbed eco					2.4													0.0008	0.0008	0.01	0.01	0.01	0.02	0.0002	0.0002			0.001	0.001	
ANZG (2018) Marine Water - Slightly to moderately disturbed e																								0.0007	0.0007			0.0044	0.0044	
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																														
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m																														
NEPM (1999) HSL D Comm/Indust - Clay 8 m+																														

Field_ID	LocCode	WellCode	Sampled_Date-Time	290	12,000	<0.5	3.4	16	<0.02	<0.02	16,000	0.13	7.5	4100	-	25	-	13,000	63	710	-	<0.05	-	0.008	-	11	-	<0.0002	250	-	-	0.002	-
S3-01	S3-01		12/10/2022	297	-	0.2	-	10	0.02	<0.01	10,000	-	-	3810	3650	11	4	12,700	12	1720	-	<0.01	-	0.01	-	45.2	-	<0.0001	342	305	-	<0.001	-
S3-01	S3-01		31/01/2023	190	19,000	<0.5	7.3	19	<0.02	<0.02	19,000	0.32	7.6	3900	3500	19	-	11,000	7.6	390	-	<0.05	-	0.01	-	45	-	<0.0002	230	230	-	<0.001	-
S3-01	S3-01		23/02/2023	290	19,000	0.7	73.2	11	<0.02	<0.02	11,000	0.01	7.9	-	3500	57	-	11,000	20	45	0.41	<0.05	0.005	0.005	3.2	2.4	<0.0002	<0.0002	220	210	0.002	<0.001	<0.001
S3-02	S3-02		12/10/2022	130	14,000	<0.5	11.9	25	0.25	<0.3	25,250	0.94	7.2	5000	-	73	-	16,000	180	2200	-	<0.05	-	0.001	-	3.1	-	<0.0002	520	-	-	<0.001	-
S3-02	S3-02		23/11/2022	103	-	0.2	-	8.5	0.01	<0.01	8500	-	-	4340	4130	207	69	16,600	6	270	-	<0.01	-	0.009	-	1.48	-	<0.0001	443	405	-	<0.001	-
S3-02	S3-02		31/01/2023	230	23,000	<0.5	8.8	8.5	<0.02	<0.02	8500	0.01	7.5	4300	3700	19	-	13,000	9.1	29	-	<0.05	-	0.002	-	5	-	<0.0002	310	280	-	<0.001	-
S3-02	S3-02		23/02/2023	640	24,000	0.6	65.4	13	<0.02	<0.02	13,000	0.02	7.7	-	5500	16	-	18,000	<5	60	0.15	0.12	<0.001	<0.001	110	100	<0.0002	<0.0002	420	430	0.001	<0.001	<0.001
S3-03	S3-03		12/10/2022	350	12,000	<0.5	1.5	14	<0.25	<0.1	14,000	0.67	7.3	6100	-	47	-	8600	51	12,000	-	<0.05	-	<0.001	-	97	-	<0.0002	460	-	-	<0.001	-
S3-03	S3-03		23/11/2022	363	-	0.1	-	12.5	<0.01	<0.01	12,500	-	-	4900	4770	1	<1	18,800	6	552	-	0.31	-	0.001	-	98.7	-	<0.0001	581	528	-	0.001	-
S3-03	S3-03		31/01/2023	570	28,000	0.5	9.3	15	<0.25	<0.1	15,000	0.05	7.3	5000	4600	4.1	-	17,000	<5	300	-	<0.05	-	0.001	-	110	-	<0.0002	410	380	-	<0.001	-
S3-03	S3-03		23/02/2023	330	16,000	0.7	64	11	<0.02	<0.02	11,000	4.8	7.3	-	4700	120	-	7600	5.2	430	8.7	<0.05	0.018	0.001	10	1.5	<0.0002	<0.0002	340	340	0.019	<0.001	0.021
S3-04	S3-04		12/10/2022	240	7900	<0.5	1.5	8.7	<0.02	<0.02	8700	0.02	7	4200	-	33	-	13,000	30	26	-	<0.05	-	0.035	-	5.5	-	<0.0002	240	-	-	<0.001	-
S3-04	S3-04		23/11/2022	40	-	0.1	-	7	0.01	<0.01	7000	-	-	3580	3540	33	11	11,600	8	15	-	0.01	-	0.039	-	13.8	-	<0.0001	296	282	-	<0.001	-
S3-04	S3-04		31/01/2023	470	19,000	<0.5	9.1	7	<0.02	<0.02	7000	<0.01	7.3	3700	3300	29	-	12,000	11	24	-	<0.05	-	0.047	-	23	-	<0.0002	230	210	-	<0.001	-
S3-04	S3-04		23/02/2023	290	18,000	<0.5	72.5	8.9	<0.02	<0.02	8900	<0.01	7.7	-	3700	36	-	11,000	22	10	<0.05	<0.05	0.036	0.033	7.6	15	<0.0002	<0.0002	220	240	<0.001	<0.001	0.009

Statistical Summary

Number of Results	16	12	16	12	16	16	16	16	12	12	12	12	16	4	16	16	16	4	16	4	16	4	16	4	16	16	12	4	16	4
Number of Detects	16	12	8	12	16	4	0	16	10	12	12	12	16	3	16	14	16	3	3	3	14	4	16	0	0	16	12	3	2	2
Minimum Concentration	40	7900	0.1	1.5	7	<0.01	<0.01	7000	<0.01	7	3580	3300	1	<1	7600	<5	10	<0.05	<0.01	<0.001	<0.001	3.2	1.48	<0.0002	<0.0001	220	210	<0.001	<0.001	<0.001
Minimum Detect	40	7900	0.1	1.5	7	0.01	ND	7000	0.01	7	3580	3300	1	4	7600	5.2	10	0.15	0.01	0.005	0.001	3.2	1.48	ND	ND	220	210	0.001	0.001	0.009
Maximum Concentration	640	28000	0.7	73.2	25	0.25	<0.3	25250	4.8	7.9	6100	5500	207	69	18800	180	12000	8.7	0.31	0.036	0.047	110	110	<0.0002	<0.0002	581	528	0.019	0.002	0.021
Maximum Detect	640	28000	0.7	73.2	25	0.25	ND	25250	4.8	7.9	6100	5500	207	69	18800	180	12000	8.7	0.31	0.036	0.047	110	110	ND	ND	581	528	0.019	0.002	0.021
Average Concentration	301	17658	0.32	27	12	0.04	0.023	12209	0.58	7.4	4411	4049	46	21	13181	27	1174	2.3	0.045	0.015	0.013	33	36	0.0001	0.000088	345	320	0.0056	0.00063	0.0078
Median Concentration	290	18500	0.25	9.2	11	0.01	0.01	11000	0.035	7.4	4250	3700	31	7.5	12850	10.05	285	0.28	0.025	0.0115	0.0065	8.8	14.4	0.0001	0.0001	325	293.5	0.0015	0.0005	0.00475
Standard Deviation	159	5694	0.19	31	4.8	0.068	0.037	4866	1.4	0.25	724	687	52	32	3262	44	2956	4.3	0.075	0.016	0.016	52	41	0	0.000022	116	99	0.0089	0.00039	0.0097
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	4	0	0	0	0	0	0	1	0	2
Number of Guideline Exceedances (Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	4	0	0	0	0	0	0	1	0	2

				Metals																																	
				Cobalt (Filtered)	Copper	Copper (Filtered)	Iron	Iron (Filtered)	Lead	Lead (Filtered)	Magnesium	Magnesium (Filtered)	Manganese	Manganese (Filtered)	Mercury	Mercury (Filtered)	Nickel	Nickel (Filtered)	Potassium	Potassium (Filtered)	Silicon	Zinc	Zinc (Filtered)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4-DDE	p-BHC	Aldrin	Aldrin + Dieldrin	p-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)				
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
EOL				0.001	0.001	0.001	0.05	0.05	0.001	0.001	0.5	0.5	0.005	0.001	0.0001	0.0001	0.001	0.001	0.5	0.5	50	0.005	0.005	2	2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5				
ANZG (2018) Freshwater - Slightly to moderately disturbed eco				0.0014	0.0014	0.0014			0.0034	0.0034			1.9	1.9	0.00006	0.00006	0.011	0.011				0.008	0.008				0.001										
ANZG (2018) Marine Water - Slightly to moderately disturbed e				0.001	0.0013	0.0013			0.0044	0.0044			0.08	0.08	0.0001	0.0001	0.007	0.007				0.015	0.015				0.003			0.001							
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																																					
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m																																					
NEPM (1999) HSL D Comm/Indust - Clay 8 m+																																					
Field_ID	LocCode	WellCode	Sampled_Date-Time	0.001	-	<0.001	-	<0.05	-	<0.001	210	-	-	0.13	-	<0.0001	-	0.002	56	-	-	-	0.006	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-			
S3-01	S3-01		12/10/2022	0.002	-	<0.001	-	0.26	-	<0.001	154	152	-	0.169	-	<0.0001	-	0.008	51	52	30,800	-	0.027	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
S3-01	S3-01		23/11/2022	0.002	-	<0.001	-	0.8	-	<0.001	130	140	-	0.17	-	-	-	0.002	55	48	-	-	0.009	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-01	S3-01		31/01/2023	<0.001	0.001	<0.001	1.2	<0.05	0.001	<0.001	160	-	0.15	0.1	<0.0001	-	0.003	0.002	48	37	-	0.012	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-02	S3-02		23/02/2023	0.004	-	<0.001	-	0.1	-	<0.001	420	-	-	0.36	-	<0.0001	-	0.007	83	-	-	-	0.016	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-02	S3-02		12/10/2022	0.004	-	<0.001	-	0.44	-	<0.001	318	301	-	0.384	-	<0.0001	-	0.007	54	50	13,600	-	<0.005	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
S3-02	S3-02		23/11/2022	<0.001	-	<0.001	-	0.11	-	<0.001	250	280	-	0.26	-	-	-	0.005	64	55	-	-	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-02	S3-02		31/01/2023	<0.001	<0.001	<0.001	2	<0.05	<0.001	<0.001	360	-	0.18	0.18	<0.0001	-	<0.001	<0.001	84	70	-	0.02	0.022	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-03	S3-03		23/02/2023	0.001	-	<0.001	-	0.18	-	<0.001	480	-	-	0.2	-	<0.0001	-	0.003	93	-	-	-	0.034	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-03	S3-03		12/10/2022	0.002	-	<0.001	-	3.62	-	0.001	340	326	-	0.318	-	<0.0001	-	0.003	77	70	15,900	-	0.066	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
S3-03	S3-03		23/11/2022	<0.001	-	<0.001	-	0.71	-	<0.001	290	320	-	0.19	-	-	-	0.002	84	78	-	-	0.017	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-03	S3-03		31/01/2023	0.003	0.038	<0.001	27	<0.05	0.013	<0.001	370	-	0.93	0.34	<0.0001	-	0.027	0.004	54	54	-	0.086	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-04	S3-04		23/02/2023	0.02	-	<0.001	-	0.15	-	<0.001	250	-	-	0.22	-	<0.0001	-	0.037	54	-	-	-	0.054	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-04	S3-04		12/10/2022	0.025	-	<0.001	-	0.18	-	<0.001	182	184	-	0.227	-	<0.0001	-	0.046	46	47	8940	-	0.012	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
S3-04	S3-04		23/11/2022	0.011	-	<0.001	-	0.7	-	<0.001	160	180	-	0.23	-	-	-	0.015	50	48	-	-	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
S3-04	S3-04		31/01/2023	0.009	<0.001	<0.001	0.25	<0.05	<0.001	<0.001	190	-	0.22	0.24	<0.0001	-	0.015	0.015	48	42	-	<0.005	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	-	-	-			
Statistical Summary																																					
Number of Results				16	4	16	4	16	4	16	16	8	4	16	4	8	4	16	16	12	4	4	16	12	12	16	16	16	16	16	16	16	4	4			
Number of Detects				12	2	0	4	11	2	1	16	8	4	16	0	0	3	15	16	12	4	3	10	0	0	0	0	0	0	0	0	0	0	0			
Minimum Concentration				<0.001	<0.001	<0.001	0.25	<0.05	<0.001	<0.001	130	140	0.15	0.1	<0.0001	<0.0001	<0.003	<0.001	46	37	8940	<0.005	<0.005	<2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5	<0.5			
Minimum Detect				0.001	0.001	ND	0.25	0.1	0.001	0.001	130	140	0.15	0.1	ND	ND	0.003	0.002	46	37	8940	0.012	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Maximum Concentration				0.025	0.038	<0.001	27	3.62	0.013	0.001	480	326	0.93	0.384	<0.0001	<0.0001	0.027	0.046	93	78	30800	0.086	0.066	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Maximum Detect				0.025	0.038	ND	27	3.62	0.013	0.001	480	326	0.93	0.384	ND	ND	0.027	0.046	93	78	30800	0.086	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Average Concentration				0.0054	0.01	0.0005	7.6	0.46	0.0038	0.00053	267	235	0.37	0.23	0.00005	0.00005	0.011	0.0099	63	54	17310	0.03	0.017	1	1	0.14	0.14	0.14	0.14	0.14	0.14	0.81	0.25	0.25			
Median Concentration				0.002	0.00075	0.0005	1.6	0.165	0.00075	0.0005	250	232	0.2	0.2235	0.00005	0.00005	0.009	0.0045	54.5	51	14750	0.016	0.0105	1	1	0.1	0.1	0.1	0.1	0.1	0.1	1	0.25	0.25			
Standard Deviation				0.0074	0.019	0	13	0.88	0.0062	0.00013	106	79	0.37	0.082	0	0	0.012	0.013	16	12	9448	0.038	0.019	0	0	0.067	0.067	0.067	0.067	0.067	0.34	0	0	0			
Number of Guideline Exceedances				12	1	0	0	0	1	0	0	0	4	16	4	8	2	7	0	0	0	3	9	0	0	0	0	16	0	0	16	0	0	0			
Number of Guideline Exceedances(Detects Only)				12	1	0	0	0	1	0	0	0	4	16	0	0	2	7	0	0	0	3	9	0	0	0	0	0	0	0	0	0	0	0			

				Organochlorine Pesticides																																											
				δ-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	γ-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene	Chlorkuthion	Azinphos methyl	Isstar (Sulprofos)	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Cumaphos	Demeton-O	Demeton-S	Imidacloprid	Dichlorvos	Dimethoate														
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L												
EOL				0.2	0.2		0.2		0.2		0.2		0.2		0.2		0.2		0.005	0.002	0.5	2		0.5		0.5		0.5		0.0005	20		2		2		0.5	0.5	0.5								
ANZG (2018) Freshwater - Slightly to moderately disturbed eco						0.006		0.01					0.01			0.2	0.01		0.004	0.0001		0.01					0.01								0.01		0.15										
ANZG (2018) Marine Water - Slightly to moderately disturbed e						0.0004		0.01					0.004			0.007	0.0004		0.04	0.000006		0.01					0.009								0.01		0.15										
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																																															
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m																																															
NEPM (1999) HSL D Comm/Indust - Clay 8 m+																																															
Field_ID	LocCode	WellCode	Sampled_Date-Time	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-01	S3-01		12/10/2022	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-01	S3-01		23/11/2022	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.0005	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5											
S3-01	S3-01		31/01/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-01	S3-01		23/02/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-02	S3-02		12/10/2022	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-02	S3-02		23/11/2022	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.0005	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5											
S3-02	S3-02		31/01/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-02	S3-02		23/02/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-03	S3-03		12/10/2022	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-03	S3-03		23/11/2022	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.0005	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5											
S3-03	S3-03		31/01/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-03	S3-03		23/02/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-04	S3-04		12/10/2022	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-04	S3-04		23/11/2022	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	-	-	<0.5	-	<0.5	<0.5	<0.5	<0.0005	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5											
S3-04	S3-04		31/01/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
S3-04	S3-04		23/02/2023	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<2	<2	-	-	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2											
Statistical Summary																																															
Number of Results				16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	12	12	16	12	4	4	16	16	16	12	12	12	16	16	16	16	16	16											
Number of Detects				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
Minimum Concentration				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.002	<0.5	<2	<0.5	<0.5	<0.5	<0.0005	<20	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5											
Minimum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Maximum Concentration				<0.5	<0.5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.005	<0.002	<2	<2	<0.5	<0.5	<20	<2	<0.002	<20	<2	<2	<2	<2	<2	<2	<2	<2										
Maximum Detect				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND									
Average Concentration				0.14	0.14	0.33	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.33	0.0025	0.001	0.81	1	0.25	0.25	7.6	0.81	0.00081	10	1	1	0.81	0.81	0.81	0.81	0.81	0.81										
Median Concentration				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0025	0.001	1	1	0.25	0.25	10	1	0.001	10	1	1	1	1	1	1	1	1										
Standard Deviation				0.067	0.067	0.4	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.067	0.4	0	0.34	0	0	0	4.4	0.34	0.00034	0	0	0	0	0.34	0.34	0.34	0.34	0.34	0.34										
Number of Guideline Exceedances				0	0	16	0	16	0	0	16	0	16	16	0	16	12	0	16	0	0	0	0	0	0	16	0	0	0	0	0	16	0	16	0	16											
Number of Guideline Exceedances(Detects Only)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											

		Organophosphorous Pesticides																													
		Disulfoton	Ethion	Ethoprop	Fenitrothion	Fensulfotthion	Fenthion	EPN	Malathion	Mephos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Prothiofos	Pyrazophos	Ronnel	Tebuifos	Trichloroate	Tetrachlorvinphos	2-methylnaphthalene	2-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Acenaphthene	Acenaphthylene	Anthracene	Coronene	Benzo(a)anthracene	benzo(a) pyrene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	0.5	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQI		2	0.5	2	2	2	0.5	2	0.05	0.002	2	2	2	2	20	2	0.5	2	2	2	2	0.002	0.1	0.1	0.1	0.01	0.01	0.01	0.01	0.1	0.01
ANZG (2018) Freshwater - Slightly to moderately disturbed eco					0.2				0.05																		0.01				0.1
ANZG (2018) Marine Water - Slightly to moderately disturbed e					0.001				0.05																		0.01				0.1
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																															
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m																															
NEPM (1999) HSL D Comm/Indust - Clay 8 m+																															

Field_ID	LocCode	WellCode	Sampled_Date-Time	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1	<1	<1	-	<1	<1
S3-01	S3-01		12/10/2022	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
S3-01	S3-01		23/11/2022	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1 - 0.07	<0.05	<0.02	-	<0.05	<0.05
S3-01	S3-01		31/01/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01
S3-01	S3-01		23/02/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1	<1	<1	-	<1	<1
S3-02	S3-02		12/10/2022	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1	<1	<1	-	<1	<1
S3-02	S3-02		23/11/2022	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
S3-02	S3-02		31/01/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01
S3-02	S3-02		23/02/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01
S3-03	S3-03		12/10/2022	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1	<1	<1	-	<1	<1
S3-03	S3-03		23/11/2022	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
S3-03	S3-03		31/01/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01
S3-03	S3-03		23/02/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1 - 0.08	<0.05	<0.01	-	<1 - 0.11	<1 - 0.09
S3-04	S3-04		12/10/2022	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<1	<1	<1	-	<1	<1
S3-04	S3-04		23/11/2022	-	<0.5	-	-	<0.5	-	<0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
S3-04	S3-04		31/01/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01
S3-04	S3-04		23/02/2023	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	-	<2	<2	<2	<2	<2	<0.002	-	-	-	<0.01	<0.01	<0.01	-	<0.01	<0.01

Statistical Summary			12	16	12	12	12	16	12	16	12	16	12	12	12	4	12	12	12	12	12	12	4	4	4	16	16	16	4	16	16	
Number of Results			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	1	
Number of Detects			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
Minimum Concentration			<2	<0.5	<2	<2	<2	<0.5	<2	<0.5	<0.002	<2	<2	<2	<20	<2	<0.5	<2	<2	<2	<2	<0.002	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	
Minimum Detect			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration			<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<20	<2	<0.5	<2	<2	<2	<2	<0.002	0.2	<0.1	<0.1	<1	<1	<1	<1	<0.1	<1	
Maximum Detect			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	ND	ND	ND	0.08	ND	ND	ND	0.11	0.09
Average Concentration			1	0.81	1	1	1	0.81	1	0.81	0.001	1	1	1	10	1	0.25	1	1	1	1	0.001	0.088	0.05	0.05	0.05	0.18	0.14	0.14	0.05	0.16	0.15
Median Concentration			1	1	1	1	1	1	1	1	0.001	1	1	1	10	1	0.25	1	1	1	1	0.001	0.05	0.05	0.05	0.05	0.0375	0.03	0.05	0.05	0.025	
Standard Deviation			0	0.34	0	0	0	0.34	0	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0.075	0	0	0	0.21	0.22	0	0	0.22	0.22
Number of Guideline Exceedances			0	0	0	12	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	4		
Number of Guideline Exceedances(Detects Only)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	PAH															Pesticides						TPH				
	Benzo(b)-fluoranthene	Benzo(e)pyrene	Benzo(a,h)-pyrene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Perylene	Pyrene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)	Demeton-S-methyl	Fenamiphos	Parathion	Phosphos-methyl	Phosphos-ethyl	C6-C9	C10-C14	C15-C28	C29-C36	C10-C36	
mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EOL	0.00001	0.1	0.01																							
ANZG (2018) Freshwater - Slightly to moderately disturbed eco							1																			
ANZG (2018) Marine Water - Slightly to moderately disturbed e							1																			
NEPM (1999) HSL D Comm/Indust - Clay 2 to <4 m																										
NEPM (1999) HSL D Comm/Indust - Clay 4 to <8 m																										
NEPM (1999) HSL D Comm/Indust - Clay 8 m+																										

Field_ID	LocCode	WellCode	Sampled_Date-Time																						
S3-01	S3-01		12/10/2022	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	<2	<0.02	-	<20	850	<100	<100	850
S3-01	S3-01		23/11/2022	<0.0001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.00005	0.1	<0.5	<0.5	<2	-	<0.5	<20	1040	310	190	1540
S3-01	S3-01		31/01/2023	<0.00005	-	<1 - 0.17	<0.05	<1 - 0.3	<0.05	<1 - 0.02	<1 - 0.22	<0.05	<1 - 1.8	<1	<1 - 0.06	-	<1 - 3.51	-	<2	<0.02	-	<20	70	<100	<100
S3-01	S3-01		23/02/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	-	<0.01	-	<0.03	-	<2	<0.02	-	<20	280	100	<100
S3-02	S3-02		12/10/2022	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	<2	<0.02	-	<20	190	200	<100	390
S3-02	S3-02		23/11/2022	<0.0001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.00005	<0.05	<0.5	<0.5	<2	-	<0.5	<20	<50	<100	<50	<50
S3-02	S3-02		31/01/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	-	<0.02	-	<2	<0.02	-	<20	260	<100	<100	260
S3-02	S3-02		23/02/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	<2	<0.02	-	<20	60	<100	<100	<100
S3-03	S3-03		12/10/2022	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	<2	<0.02	-	<20	160	<100	<100	160
S3-03	S3-03		23/11/2022	<0.0001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.00005	<0.05	<0.5	<0.5	<2	-	<0.5	<20	160	580	200	940
S3-03	S3-03		31/01/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	-	<0.02	-	<2	<0.02	-	<20	60	<100	<100	<100
S3-03	S3-03		23/02/2023	001 - 0.00	-	<0.03	<1 - 0.05	<1 - 0.56	<0.03	<1 - 0.08	<1 - 0.33	<0.03	<10 - 2	2	-	<1 - 0.17	-	<2	<0.02	-	<20	60	1200	400	1660
S3-04	S3-04		12/10/2022	<0.001	-	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-	-	<2	<0.02	-	<20	240	<100	<100	240
S3-04	S3-04		23/11/2022	<0.0001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.00005	<0.05	<0.5	<0.5	<2	-	<0.5	<20	<50	<100	<50	<50
S3-04	S3-04		31/01/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	-	<0.02	-	<2	<0.02	-	<20	130	<100	<100	130
S3-04	S3-04		23/02/2023	<0.00001	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	<2	<0.02	-	<20	210	200	<100	410

Statistical Summary

Number of Results	16	4	16	16	16	16	16	16	16	16	4	16	4	16	4	4	16	12	4	16	16	16	16	16
Number of Detects	1	0	1	1	2	0	2	2	0	3	1	0	2	0	3	0	0	0	0	0	14	6	3	11
Minimum Concentration	<0.00001	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.00005	0.1	<0.5	<0.5	<2	<0.02	<0.5	<20	<50	<100	<50
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	0.1	ND	ND	ND	ND	ND	60	100	190	130
Maximum Concentration	<0.001	<0.1	<1	<1	<1	<1	<1	<1	<1	2	2	<0.1	<1	<0.00005	4.85	<0.5	<0.5	<2	<0.02	<0.5	<20	1040	1200	400
Maximum Detect	0.00008	ND	0.17	0.05	0.56	ND	0.08	0.33	ND	2	2	ND	0.17	ND	4.85	ND	ND	ND	ND	ND	1040	1200	400	1660
Average Concentration	0.00016	0.05	0.16	0.16	0.2	0.14	0.17	0.19	0.14	0.51	0.3	0.05	0.18	0.000025	0.45	0.25	0.25	1	0.01	0.25	10	239	193	87
Median Concentration	0.00005	0.05	0.05	0.05	0.05	0.0375	0.05	0.05	0.0375	0.05	0.05	0.05	0.05	0.000025	0.025	0.25	0.25	1	0.01	0.25	10	160	50	50
Standard Deviation	0.00021	0	0.22	0.21	0.23	0.21	0.21	0.22	0.21	0.9	0.51	0	0.22	0	1.2	0	0	0	0	0	290	304	98	527
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	16	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0



Table B.12 Groundwater Gauging Data
Horsley Park S3A
0449086

Location ID	Gauging Date	Top of Casing (mAHD)	Depth to Water (mbTOC)	Depth to NAPL (mbTOC)	Depth of Well (mbTOC)	Water Elevation (mAHD)	Comments
S3-01	12/10/2022	83.550	22.603	-	39.000	60.947	Slight odour and sediment
S3-01	23/11/2022	83.550	18.075	-	39.510	65.475	Turbid, dark, no odour
S3-01	31/01/2023	83.550	12.494	-	39.510	71.056	-
S3-01	23/02/2023	83.550	12.530	-	39.510	71.020	Clear, colourless, sulfur odour
S3-02	12/10/2022	83.930	11.191	-	39.000	72.739	-
S3-02	23/11/2022	83.930	12.332	-	40.308	71.598	Slightly turbid, no odour
S3-02	31/01/2023	83.930	11.153	-	40.308	72.777	-
S3-02	23/02/2023	83.930	11.244	-	40.308	72.686	-
S3-03	12/10/2022	80.980	22.603	-	39.000	58.377	Clear, odourless
S3-03	23/11/2022	80.980	9.223	-	39.981	71.757	Turbid, H2S odour
S3-03	31/01/2023	80.980	8.782	-	39.981	72.198	-
S3-03	23/02/2023	80.980	8.971	-	39.981	72.009	Clear, colourless, odourless
S3-04	12/10/2022	82.770	9.619	-	39.500	73.151	Slight sulfur odour, clear, minor sediment on bottom.
S3-04	23/11/2022	82.770	9.455	-	39.701	73.315	Clear, no odour
S3-04	31/01/2023	82.770	9.678	-	39.701	73.092	-
S3-04	23/02/2023	82.770	9.657	-	39.701	73.113	Clear, colourless, odourless



Table B.13 Groundwater Field Parameters
Horsley Park S3A
0449086

Location ID	Sample Date	pH	Temp (oC)	EC (uS/cm)	DO (mg/L)	Redox (mV)
S3-01	12/10/2022	7.510	20.800	13456	1.060	125.400
S3-01	23/11/2022	6.940	22.900	19201	7.600	-2.300
S3-01	31/01/2023	6.810	22.500	20330	2.000	-7.100
S3-01	23/02/2023	-	-	-	-	-
S3-02	12/10/2022	7.270	20.900	15398	1.340	176.200
S3-02	23/11/2022	6.350	23.500	22555	7.400	13.800
S3-02	31/01/2023	7.020	22.500	19325	2.560	-6.500
S3-02	23/02/2023	-	-	-	-	-
S3-03	12/10/2022	7.320	20.600	11471	0.660	169.500
S3-03	23/11/2022	6.780	23.900	26330	9.000	-20.900
S3-03	31/01/2023	6.810	23.500	27732	2.570	33.600
S3-03	23/02/2023	6.990	20.000	13508	1.370	132.600
S3-04	12/10/2022	6.830	19.000	12947	0.870	168.100
S3-04	23/11/2022	6.680	27.100	18790	17.000	53.900
S3-04	31/01/2023	6.810	21.200	18548	3.230	89.300
S3-04	23/02/2023	4.000	19.800	18.8	9.630	153.700



	Naphthalene	PAH/Phenols (SIM)	Inorganics	Organic								PAH															TPH						
	Naphthalene	Sum of polycyclic aromatic hydrocarbons	Moisture Content (dried @ 103°C)	TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH C6-C9	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (total)*	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b&j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	TRH C15-C28	TRH C29-C36	TRH C10-C14	TRH C10-C36 (Total)
	mg/kg	mg/kg	%	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
EQL	0.5	0.5	1	20	20	20	50	50	100	100	100	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	50	50	20	50
CRC Care (2011) Direct Contact HSL D - Comm/Ind	11000				26000			20000	27000	38000																							
NEPM (1999) EIL - Commercial/Industrial	370																																
NEPM (1999) ESL - Commercial/Industrial (fine)					215		170		2500	6600								1.4															
NEPM (1999) HIL D - Commercial/Industrial																			40														
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m	NL				310			NL																									
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m	NL				480			NL																									
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m	NL				NL			NL																									
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+	NL				NL			NL																									
NEPM (1999) Management Limits - Commercial/Industrial (fine)				800			1000		5000	10000																							

Field_ID	Sampled_Date-Time	Sample_Depth_Range	Lab_Report_Number	Sample_Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Statistical Summary																																	
Number of Results	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Number of Detects	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<0.5	7	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<50	<20	<50
Minimum Detect	ND	ND	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.5	<0.5	13	<20	<20	<20	<50	<50	<100	<100	<100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<50	<20	<50	
Maximum Detect	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.25	0.25	10	10	10	10	25	25	50	50	50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	25	25	10	25
Median Concentration	0.25	0.25	10	10	10	10	25	25	50	50	50	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	25	25	10	25
Standard Deviation	0	0	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



						Moisture Content	Naphthalene	OCP		OCs	OPs				PAH/Phenols (SIM)	pH		SVOC				TRH Volatiles/BTEX	Volatile					
	Omethoate	Pirimiphos-methyl	Pyrazophos	Terbufos	Tetrachlorvinphos	Moisture Content	Naphthalene	Vic EPA IWRG 621 OCP (Total) *	Vic EPA IWRG 621 Other OCP (Total) *	Toxaphene	Mevinphos (Phosdrin)	Naled (Dibrom)	Tokuthion	Trichloronate	Sum of polycyclic aromatic hydrocarbons	pH (aqueous extract)	pH (Lab)	Demeton-O	Demeton-S	EPN	Fensulfothion	Sum of BTEX	Toluene	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Xylenes - Total*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	MG/KG	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	pH Units	pH units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
EQL	2	0.2	0.2	0.2	0.2	1	0.5	0.1	0.1	0.5	0.2	0.2	0.2	0.2	0.5	0.1		0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.3
CRC Care (2011) Direct Contact HSL D - Comm/Ind							11000																99000	430	27000			81000
NEPM (1999) EIL - Commercial/Industrial							370																					
NEPM (1999) ESL - Commercial/Industrial (fine)																							135	95	185			95
NEPM (1999) HIL D - Commercial/Industrial										160																		
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m							NL																NL	4	NL			NL
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m							NL																NL	6	NL			NL
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m							NL																NL	9	NL			NL
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+							NL																NL	NL	NL			NL
NEPM (1999) Management Limits - Commercial/Industrial (fine)																												

Field_ID	Sampled_Date-Time	Lab_Report_Number	Sample_Type																												
CH-1	31/03/2022	876201	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.8	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
CH-2	31/03/2022	876201	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.7	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
CH-3	31/03/2022	876201	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.6	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
CH-3A	31/03/2022	876201	Field_D	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.7	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
CH-3B	31/03/2022	ES2212037	Interlab_D	-	-	-	-	-	11.2	<0.5	-	-	-	-	-	-	-	<0.5	-	5.7	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5
GLADESVILLE 1	27/10/2021	835801	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	9.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 2	27/10/2021	835801	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	9.1	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 3	27/10/2021	835801	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	9	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 4	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.6	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 5	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.4	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 6	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.3	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 7	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.3	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 8	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5.2	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
GLADESVILLE 8A	12/01/2022	856048	Field_D	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	5	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
Gladesville 8B	12/01/2022	ES2201849	Interlab_D	-	-	-	-	-	9.4	<0.5	-	-	-	-	-	-	-	<0.5	-	6	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5
LCS-1	27/08/2020	ES2030511	Normal	-	-	-	-	-	5.6	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
LCS-1A	27/08/2020	ES2030511	Field_D	-	-	-	-	-	6.6	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
LCS-1-B	27/08/2020	741102	Interlab_D	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.5	-	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
LCS-2	27/08/2020	ES2030511	Normal	-	-	-	-	-	5.7	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
LCS-3	27/08/2020	ES2030511	Normal	-	-	-	-	-	5.7	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
LCS-4	27/08/2020	ES2030511	Normal	-	-	-	-	-	4.8	<0.5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
WILLOUGHBY 1	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	4.6	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
WILLOUGHBY 2	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	4.6	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
WILLOUGHBY 3	12/01/2022	856048	Normal	<2	<0.2	<0.2	<0.2	<0.2	-	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	4.3	-	<0.2	<0.2	<0.2	<0.2	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3

Statistical Summary																												
Number of Results	17	17	17	17	17	7	24	17	17	17	17	17	17	17	24	16	2	17	17	17	17	7	24	24	24	24	24	24
Number of Detects	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	16	2	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<2	<0.2	<0.2	<0.2	<0.2	4.8	<0.5	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.5	4.3	5.7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3
Minimum Detect	ND	ND	ND	ND	ND	4.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3	5.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<2	<0.2	<0.2	<0.2	<0.2	11.2	<0.5	<0.2	<0.2	<1	<0.2	<0.2	<0.2	<0.2	<0.5	9.2	6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.5	<0.5	<0.5
Maximum Detect	ND	ND	ND	ND	ND	11.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.2	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	1	0.1	0.1	0.1	0.1	7	0.25	0.053	0.053	0.26	0.1	0.1	0.1	0.1	0.25	6		0.1	0.1	0.1	0.1	0.1	0.11	0.065	0.11	0.14	0.11	0.18
Median Concentration	1	0.1	0.1	0.1	0.1	5.7	0.25	0.05	0.05	0.25	0.1	0.1	0.1	0.1	0.25	5.5	5.85	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.05	0.1	0.05
Standard Deviation	0	0	0	0	0	2.4	0	0.012	0.012	0.061	0	0	0	0	0	1.6		0	0	0	0	0	0.093	0.023	0.093	0.07	0.093	0.046
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



	Asbestos																Inorganics	Metals							Organic									
	Organic Fibres - Comment	ACM - Comment	Approximate Sample Mass	Asbestos from ACM in Soil	Asbestos from FA & AF in Soil	Asbestos Reported Result	AF - Comment	FA - Comment	Mass ACM	Mass AF	Mass Asbestos in ACM	Mass Asbestos in AF	Mass Asbestos in FA	Mass Asbestos in FA & AF	Mass FA	Respirable Fibres - Comment	Synthetic Fibres - Comment	Moisture Content (dried @ 103°C)	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	TRH C6-C10	TRH C6-C10 less BTEX (F1)	TRH C6-C9	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH >C10-C40 (total)*
	Comment	Comment	g	%w/w	%w/w	Comment	Comment	Comment	g	g	g	g	g	g	g	Comment	Comment	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG
EQL																		1	2	0.4	2	5	5	0.1	2	5	10	10	10	50	50	100	100	50
CRC Care (2011) Direct Contact HSL D - Comm/Ind																												26000			20000	27000	38000	
NEPM (1999) EIL - Commercial/Industrial																			160		680	290	1800		300	690					20000	27000	38000	
NEPM (1999) ESL - Commercial/Industrial (fine)																												215		170		2500	6600	
NEPM (1999) HIL D - Commercial/Industrial																			3000	900	3600	240000	1500	730	6000	400000								
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																												310			NL			
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																												480			NL			
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																												NL			NL			
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																												NL			NL			
NEPM (1999) Management Limits - Commercial/Industrial (fine)																										800				1000		5000	10000	

Field_ID	Sampled_Date-Time	Lab_Report_Number	Sample_Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Statistical Summary																																			
Number of Results	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Number of Detects	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	11	0	23	10	23	0	9	23	0	0	0	0	0	0	0	0	0
Minimum Concentration	1	1	868	0	0	1	1	1	0	0	0	0	0	0	0	1	1	4.9	<2	<0.4	<5	<5	<5	<0.1	<2	<5	<10	<10	<10	<50	<50	<100	<100	<50	
Minimum Detect	1	1	868	ND	ND	1	1	1	ND	ND	ND	ND	ND	ND	ND	1	1	4.9	2	ND	5.6	5	6.1	ND	3	12	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	1	1	868	0	0	1	1	1	0	0	0	0	0	0	0	1	1	12	<5	<1	9.6	14	19	<0.1	16	96	<20	<20	<20	<50	<50	<100	<100	<100	
Maximum Detect	1	1	868	ND	ND	1	1	1	ND	ND	ND	ND	ND	ND	ND	1	1	12	4.8	ND	9.6	14	19	ND	16	96	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration																		9	2.5	0.29	7.4	4.9	11	0.05	4.3	30	8.5	8.5	8.5	25	25	50	50	43	
Median Concentration	1	1	868	0	0	1	1	1	0	0	0	0	0	0	0	1	1	9	2.5	0.2	7.65	2.5	11.5	0.05	2.5	21	10	10	10	25	25	50	50	50	
Standard Deviation																		1.9	1.1	0.14	1.6	3.6	3.9	0	4.1	24	2.3	2.3	2.3	0	0	0	12		
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



	PAH																		PCBs							
	Acenaphthene	Acenaphthylene	Anthracene	Fluoranthene	Fluorene	Benz(a)anthracene	Benz(a)pyrene	Benz(a)pyrene TEQ (lower bound) *	Benz(a)pyrene TEQ (medium bound) *	Benz(a)pyrene TEQ (upper bound) *	Benz(b&j)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CRC Care (2011) Direct Contact HSL D - Comm/Ind																										
NEPM (1999) EIL - Commercial/Industrial																										
NEPM (1999) ESL - Commercial/Industrial (fine)							1.4																			
NEPM (1999) HIL D - Commercial/Industrial								40																		7
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																										
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																										
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																										
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																										
NEPM (1999) Management Limits - Commercial/Industrial (fine)																										

Field_ID	Sampled_Date-Time	Lab_Report_Number	Sample_Type																							
CH-1	31/03/2022	876201	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
CH-2	31/03/2022	876201	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
CH-3	31/03/2022	876201	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
CH-3A	31/03/2022	876201	Field_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
CH-3B	31/03/2022	ES2212037	Interlab_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
GLADESVILLE 1	27/10/2021	835801	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 2	27/10/2021	835801	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 3	27/10/2021	835801	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 4	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 5	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 6	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 7	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 8	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GLADESVILLE 8A	12/01/2022	856048	Field_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Gladesville 8B	12/01/2022	ES2201849	Interlab_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
LCS-1	27/08/2020	ES2030511	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
LCS-1A	27/08/2020	ES2030511	Field_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
LCS-1-B	27/08/2020	741102	Interlab_D	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5
LCS-2	27/08/2020	ES2030511	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
LCS-3	27/08/2020	ES2030511	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
LCS-4	27/08/2020	ES2030511	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	<0.1
WILLOUGHBY 1	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
WILLOUGHBY 2	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
WILLOUGHBY 3	12/01/2022	856048	Normal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Statistical Summary																											
Number of Results	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	17	17	17	17	17	17	17	24	
Number of Detects	0	0	0	0	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	0.6	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Average Concentration	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.062	0.05	0.062	0.062	0.062	0.062	0.062	0.058	
Median Concentration	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.6	1.2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.049	0	0.049	0.049	0.049	0.049	0.049	0.041	
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Table B.15 - VENM Import Analytical Table
Horsley Park Stage 3A
0449086

[illegible][illegible][illegible]



	Pesticides															TPH			
	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Malathion	Methoxychlor	Methyl parathion	Monocrotophos	Parathion	Phorate	Pirimphos-ethyl	Prothiofos	Ronnel	Bolstar (Sulprofos)	Merphos	TRH C15-C28	TRH C29-C36	TRH C10-C14	TRH C10-C36 (Total)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MG/KG	MG/KG	MG/KG	MG/KG
EQL	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2	0.2	0.05	0.05	0.2	0.2	0.2	50	50	20	50
CRC Care (2011) Direct Contact HSL D - Comm/Ind																			
NEPM (1999) EIL - Commercial/Industrial																			
NEPM (1999) ESL - Commercial/Industrial (fine)																			
NEPM (1999) HIL D - Commercial/Industrial		50		80		2500													
NEPM (1999) HSL D Comm/Indust - VI Clay 0 to <1 m																			
NEPM (1999) HSL D Comm/Indust - VI Clay 1 to <2 m																			
NEPM (1999) HSL D Comm/Indust - VI Clay 2 to <4 m																			
NEPM (1999) HSL D Comm/Indust - VI Clay 4 m+																			
NEPM (1999) Management Limits - Commercial/Industrial (fine)																			

Field_ID	Sampled_Date-Time	Lab_Report_Number	Sample_Type																			
CH-1	31/03/2022	876201	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
CH-2	31/03/2022	876201	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
CH-3	31/03/2022	876201	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
CH-3A	31/03/2022	876201	Field_D	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
CH-3B	31/03/2022	ES2212037	Interlab_D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
GLADESVILLE 1	27/10/2021	835801	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	60	<20	60
GLADESVILLE 2	27/10/2021	835801	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	66	<20	66
GLADESVILLE 3	27/10/2021	835801	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	63	<20	63
GLADESVILLE 4	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
GLADESVILLE 5	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	59	<20	59
GLADESVILLE 6	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
GLADESVILLE 7	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
GLADESVILLE 8	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	60	<20	60
GLADESVILLE 8A	12/01/2022	856048	Field_D	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
Gladesville 8B	12/01/2022	ES2201849	Interlab_D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
LCS-1	27/08/2020	ES2030511	Normal	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
LCS-1A	27/08/2020	ES2030511	Field_D	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
LCS-1-B	27/08/2020	741102	Interlab_D	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
LCS-2	27/08/2020	ES2030511	Normal	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
LCS-3	27/08/2020	ES2030511	Normal	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
LCS-4	27/08/2020	ES2030511	Normal	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.05	<0.05	-	-	-	<100	<100	<50	<50
WILLOUGHBY 1	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
WILLOUGHBY 2	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50
WILLOUGHBY 3	12/01/2022	856048	Normal	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.2	<2	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<50	<50	<20	<50

Statistical Summary																			
Number of Results	24	24	24	24	24	24	24	24	24	17	7	7	17	17	17	24	24	24	24
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
Minimum Concentration	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.2	<50	<50	<20	<50
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59	ND	59
Maximum Concentration	<0.05	<0.05	<0.05	<0.05	<0.2	<0.2	<0.2	<2	<0.2	<0.2	<0.05	<0.05	<0.2	<0.2	<0.2	<100	<100	<50	66
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	66	ND	66
Average Concentration	0.025	0.025	0.025	0.025	0.078	0.05	0.1	0.74	0.1	0.1	0.025	0.025	0.1	0.1	0.1	32	40	14	33
Median Concentration	0.025	0.025	0.025	0.025	0.1	0.025	0.1	1	0.1	0.1	0.025	0.025	0.1	0.1	0.1	25	37.5	10	25
Standard Deviation	0	0	0	0	0.035	0.036	0	0.42	0	0	0	0	0	0	0	12	16	7	15
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Field Data PID Screening

Location	Date	PiD (ppm)
HS-1 (Old Sump)	2/06/2021	0.1
HS-2 (Old Sump)	2/06/2021	0.2
HS-3 (Old Sump)	2/06/2021	0.2
TRH SP (SUMP)	15/09/2021	4.3
TRH SP (SUMP)	15/09/2021	2.1
TRH SP (SUMP)	15/09/2021	2.6
OIL SP (SUMP)	15/09/2021	2.8
BASE-1	21/03/2022	0.3
BASE-2	21/03/2022	0.2
BASE-3	21/03/2022	0.7
BASE4	21/03/2022	0.4
BASE5	21/03/2022	0.4
BASE6	21/03/2022	0.3
BASE7	21/03/2022	0.3
BASE8	21/03/2022	0.3
BASE9	21/03/2022	0.3
BASE10	21/03/2022	0.1
DL3EW1-1	21/03/2022	0.5
DL3EW1-2	21/03/2022	0.4
DL3EW2-1	21/03/2022	0.8
DL3EW2-2	21/03/2022	0.6
DL3NW-1	21/03/2022	0.4
DL3NW-2	21/03/2022	0.4
DL3SW-1	21/03/2022	0.4
DL3SW-2	21/03/2022	0.4
DL3WW1-1	21/03/2022	0.4
DL3WW1-2	21/03/2022	0.4
DL3WW2-1	21/03/2022	0.8
DL3WW2-2	21/03/2022	0.6
BASE 5-V	23/03/2022	0.0
BH46 - SP-1	12/05/2022	7.9
BH46 - SP-2	12/05/2022	38.9
BH46 - SP-3	12/05/2022	1.5
BH46 - SP-4	12/05/2022	2.5
BH46 - SP-5	12/05/2022	15.4
BH46 - SP-6	12/05/2022	79.0
BH46 - SP-7	12/05/2022	6.2
BH46 - SP-8	12/05/2022	53.9
BH46 - SP-9	12/05/2022	95.0
BH46 - SP-10	12/05/2022	44.0
BH46-V-N	26/05/2022	0.0
BH46-V-E	26/05/2022	0.3
BH46-V-W	26/05/2022	0.0
BH46-V-S	26/05/2022	0.0
BH46-V-Base	26/05/2022	0.0
BH46 - LF1	26/05/2022	0.3

RPDs have only been considered where a concentration is greater than 1 times the EQL.

High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (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

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Field Duplicates (SOIL)
Filter: SDG in (21 Mar

SDG		21-Mar-22	21-Mar-22		21-Mar-22	21-Mar-22	
Field ID		BASE-3	BASE-3A	RPD	M19 CLAYS-10	M19 CLAYS-10A	RPD
Sampled Date/Time		21/03/2022	21/03/2022		21/03/2022	21/03/2022	
Chem	Gr	Chem	Nar	Units	EQL		
		Dimethoat	mg/kg	2		<2.0	<2.0
		Pyrimiphos	mg/kg	0.2		<0.2	<0.2
		Pyrazophos	mg/kg	0.2		<0.2	<0.2
		Terbufos	mg/kg	0.2		<0.2	<0.2
		Tetrachlor	mg/kg	0.2		<0.2	<0.2
		Naphthalene	mg/kg	0.5		<0.5	<0.5
		Naphthalene	mg/kg	0.5	<0.5	<0.5	0
		OCs					
		Vic EPA	mg/kg	0.1		<0.1	<0.1
		Vic EPA	mg/kg	0.1		<0.1	<0.1
		OCs					
		Toxaphene	mg/kg	0.5		<0.5	<0.5
		OPs					
		Mevinphos	mg/kg	0.2		<0.2	<0.2
		Naled	mg/kg	0.2		<0.2	<0.2
		Tokuthion	mg/kg	0.2		<0.2	<0.2
		Trichloron	mg/kg	0.2		<0.2	<0.2
		PAH/Phen	Sum of pmg/kg	0.5		<0.5	<0.5
		ols (SIM)					
		SVOC					
		Demeton-	mg/kg	0.2		<0.2	<0.2
		Demeton-	mg/kg	0.2		<0.2	<0.2
		EPN	mg/kg	0.2		<0.2	<0.2
		Fensulfot	mg/kg	0.2		<0.2	<0.2
		Volatile					
		Toluene	mg/kg	0.1		<0.1	<0.1
		Benzene	mg/kg	0.1		<0.1	<0.1
		Ethylbenz	mg/kg	0.1		<0.1	<0.1
		m&p-Xyle	mg/kg	0.2		<0.2	<0.2
		o-Xylene	mg/kg	0.1		<0.1	<0.1
		Xylenes	mg/kg	0.3		<0.3	<0.3
		Inorganics	Moisture %	1	17.0	13.0	27
		Metals					
		Arsenic	mg/kg	2		27.0	30.0
		Cadmium	mg/kg	0.4		<0.4	<0.4
		Chromium	mg/kg	5		53.0	48.0
		Copper	mg/kg	5		33.0	36.0
		Lead	mg/kg	5		35.0	33.0
		Mercury	mg/kg	0.1		<0.1	<0.1
		Nickel	mg/kg	5		13.0	12.0
		Zinc	mg/kg	5		61.0	64.0
		Organic					
		TRH C6-C	mg/kg	20	<20.0	<20.0	0
		TRH C6-C	mg/kg	20	<20.0	<20.0	0
		TRH C6-C	mg/kg	20	<20.0	<20.0	0
		TRH >C10	mg/kg	50	<50.0	<50.0	0
		TRH >C10	mg/kg	50	<50.0	<50.0	0
		TRH >C10	mg/kg	100	<100.0	<100.0	0
		TRH >C10	mg/kg	100	<100.0	<100.0	0
		TRH >C10	mg/kg	100	<100.0	<100.0	0
		PAH					
		Acenaphth	mg/kg	0.5		<0.5	<0.5
		Acenaphth	mg/kg	0.5		<0.5	<0.5
		Anthracen	mg/kg	0.5		<0.5	<0.5
		Fluoranth	mg/kg	0.5		<0.5	<0.5
		Fluorene	mg/kg	0.5		<0.5	<0.5
		Benzo(a)	mg/kg	0.5		<0.5	<0.5
		Benzo(a)	mg/kg	0.5		<0.5	<0.5
		Benzo(a)	mg/kg	0.5		<0.5	<0.5
		Benzo(a)	mg/kg	0.5		0.6	0.6
		Benzo(a)	mg/kg	0.5		1.2	1.2
		Benzo(b)	mg/kg	0.5		<0.5	<0.5
		Benzo(g)	mg/kg	0.5		<0.5	<0.5
		Benzo(k)	mg/kg	0.5		<0.5	<0.5
		Chrysene	mg/kg	0.5		<0.5	<0.5
		Dibenz(a)	mg/kg	0.5		<0.5	<0.5
		Indeno(1,2)	mg/kg	0.5		<0.5	<0.5
		Phenanthr	mg/kg	0.5		<0.5	<0.5
		Pyrene	mg/kg	0.5		<0.5	<0.5
		PCBs					
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		Arochlor 1	mg/kg	0.1		<0.1	<0.1
		PCBs (Sum)	mg/kg	0.1		<0.1	<0.1
		Pesticides					
		4,4-DDE	mg/kg	0.05		<0.05	<0.05
		a-BHC	mg/kg	0.05		<0.05	<0.05
		Aldrin	mg/kg	0.05		<0.05	<0.05
		Aldrin + D	mg/kg	0.05		<0.05	<0.05
		Azinphos	mg/kg	0.2		<0.2	<0.2
		b-BHC	mg/kg	0.05		<0.05	<0.05
		Chlordane	mg/kg	0.1		<0.1	<0.1
		Chlorfenv	mg/kg	0.2		<0.2	<0.2
		Chlorpyrif	mg/kg	0.2		<0.2	<0.2
		Chlorpyrif	mg/kg	0.2		<0.2	<0.2
		Coumaph	mg/kg	2		<2.0	<2.0
		d-BHC	mg/kg	0.05		<0.05	<0.05
		DDD	mg/kg	0.05		<0.05	<0.05
		DDT	mg/kg	0.05		<0.05	<0.05
		DDT+DDE	mg/kg	0.05		<0.05	<0.05
		Diazinon	mg/kg	0.2		<0.2	<0.2
		Dichlorvos	mg/kg	0.2		<0.2	<0.2
		Dieldrin	mg/kg	0.05		<0.05	<0.05
		Dimethoat	mg/kg	0.2		<0.2	<0.2
		Disulfoton	mg/kg	0.2		<0.2	<0.2
		Endosulfam	mg/kg	0.05		<0.05	<0.05
		Endosulfam	mg/kg	0.05		<0.05	<0.05
		Endosulfam	mg/kg	0.05		<0.05	<0.05
		Endrin	mg/kg	0.05		<0.05	<0.05
		Endrin ald	mg/kg	0.05		<0.05	<0.05
		Endrin ket	mg/kg	0.05		<0.05	<0.05
		Ethion	mg/kg	0.2		<0.2	<0.2
		Ethoprop	mg/kg	0.2		<0.2	<0.2
		Fenitroth	mg/kg	0.2		<0.2	<0.2
		Fenitroth	mg/kg	0.2		<0.2	<0.2
		g-BHC	mg/kg	0.05		<0.05	<0.05
		Heptachlor	mg/kg	0.05		<0.05	<0.05
		Heptachlor	mg/kg	0.05		<0.05	<0.05
		Hexachlor	mg/kg	0.05		<0.05	<0.05
		Malathion	mg/kg	0.2		<0.2	<0.2
		Methoxy	mg/kg	0.05		<0.05	<0.05
		Methyl pa	mg/kg	0.2		<0.2	<0.2
		Monocroto	mg/kg	2		<2.0	<2.0
		Parathion	mg/kg	0.2		<0.2	<0.2
		Phorate	mg/kg	0.2		<0.2	<0.2
		Ronnel	mg/kg	0.2		<0.2	<0.2
		Bolstar (S	mg/kg	0.2		<0.2	<0.2
		Merphos	mg/kg	0.2		<0.2	<0.2
		TPH					
		TRH C15	mg/kg	50	<50.0	<50.0	0
		TRH C20	mg/kg	50	<50.0	<50.0	0
		TRH C10	mg/kg	20	<20.0	<20.0	0
		TRH C10	mg/kg	50	<50.0	<50.0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (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

***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

*HPCs have only been considered where a concentration is greater than 1 times the L₀
 *when HPCs are in test (acceptance limit) for each ECQ, multiplier range are: 10 (1-10) + ECQ; 50 (10-50) + ECQ; 1
 *materials 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

Field Duplicates (SOIL)
Filter: SDG In Q2 Fet

SDG Field ID		13-Jan-22	13-Jan-22	RPD	13-Jan-22	ALSE-Sydney 20-Jan-22	RPD
Sampled Date/Time		Q18-25 12/01/2022	Q18-25A 12/01/2022		Q18-25 12/01/2022	Q18-25B 12/01/2022	
Chem. Gr	Chem Name Units	EQL					
	Omethoat mg/kg	2	<2.0	<2.0	0	<2.0	
	Primiphos mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Pyrazophos mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Terbufos mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Tetrachlor mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Naphthalene mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	0
	Naphthalene mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	0
	Vic EPA N mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Vic EPA N mg/kg	0.1	<0.1	<0.1	0	<0.1	
	OCs						
	Toxaphen mg/kg	0.5	<0.5	<0.5	0	<0.5	
	OPs						
	Mevinphos mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Naled (Dit) mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Topkuthion mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Trichloron mg/kg	0.2	<0.2	<0.2	0	<0.2	
	PAH/Pher						
	Sum of pol mg/kg	0.5	<0.5	<0.5	0	<0.5	0
	Is (SIM)						
	pH						
	pH (aqueous) units	0.1					
	SVOC						
	Demeton- mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Demeton- mg/kg	0.2	<0.2	<0.2	0	<0.2	
	EPN mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Fensulfotr mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Volatile						
	Toluene mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5
	Benzene mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.2
	Ethylbenz mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5
	m,p-Xyle mg/kg	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2	<0.5
	o-Xylene mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5
	Xylenes - mg/kg	0.3 (Primary): 0.5 (Interlab)	<0.3	<0.3	0	<0.3	<0.5
	Inorganics						
	Moisture %	1	8.9	7.7	14	8.9	
	Metals						
	Arsenic mg/kg	2 (Primary): 5 (Interlab)	9.8	7.7	24	9.8	13.0
	Cadmium mg/kg	0.4 (Primary): 1 (Interlab)	<0.4	<0.4	0	<0.4	<1.0
	Chromium mg/kg	5 (Primary): 2 (Interlab)	13.0	9.1	35	13.0	16.0
	Copper mg/kg	5	29.0	21.0	32	29.0	46.0
	Lead mg/kg	5	12.0	8.3	36	12.0	23.0
	Mercury mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1
	Nickel mg/kg	5 (Primary): 2 (Interlab)	18.0	13.0	32	18.0	29.0
	Zinc mg/kg	5	58.0	40.0	37	58.0	80.0
	Organic						
	TRH C6-C mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0
	TRH C6-C mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0
	TRH C6-C mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0
	TRH >C10 mg/kg	50	<50.0	<50.0	0	<50.0	<50.0
	TRH >C10 mg/kg	50	<50.0	<50.0	0	<50.0	<50.0
	TRH >C10 mg/kg	100	<100.0	<100.0	0	<100.0	<100.0
	TRH >C34 mg/kg	100	<100.0	<100.0	0	<100.0	<100.0
	TRH >C10 mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0	<50.0
	PAH						
	Acenaphth mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Acenaphth mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Anthracen mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Fluoranth mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Fluorene mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(a)ar mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(a)ar mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(a)ar mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(a)ar mg/kg	0.5	0.6	0.6	0	0.6	0.6
	Benz(a)ar mg/kg	0.5	1.2	1.2	0	1.2	1.2
	Benz(b)ar mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(g,h) mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Benz(k)ar mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Chrysene mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Dibenz(a,h) mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Indeno(1,2,3-cd) mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Phenanthr mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	Pyrene mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5
	PCBs						
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	Arochlor 1 mg/kg	0.1	<0.1	<0.1	0	<0.1	
	PCBs (Sum) mg/kg	0.1	<0.1	<0.1	0	<0.1	0
	Pesticides						
	4,4-DDE mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	b-BHC mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Aldrin mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Aldrin + D mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Azinphos mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	b-BHC mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Chlordane mg/kg	0.1 (Primary): 0.05 (Interlab)	<0.1	<0.1	0	<0.1	<0.05
	Chlorfenvi mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Chlorpyrif mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Chlorpyrif mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Coumaph mg/kg	2	<2.0	<2.0	0	<2.0	
	d-BHC mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	DDD mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	DDT mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0	<0.05	<0.2
	DDT+DDE mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Diazinon mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Dichlorvos mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Dieldrin mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Dimethoat mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Disulfoton mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Endosulfat mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Endosulfat mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Endosulfat mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Endrin mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Endrin ald mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Endrin ket mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Ethion mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Ethoprop mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Fenitrothi mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Fenthion mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	g-BHC mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Heptachlo mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Heptachlo mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Hexachlor mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05
	Malathion mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.05
	Methoxycl mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0	<0.05	<0.2
	Methyl par mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2
	Monocroto mg/kg	2 (Primary): 0.2 (Interlab)	<2.0	<2.0	0	<2.0	<0.2
	Parathion mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2
	Phorate mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Ronnel mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Bolstar (S) mg/kg	0.2	<0.2	<0.2	0	<0.2	
	Merphos mg/kg	0.2	<0.2	<0.2	0	<0.2	
	TPH						
	TRH C15- mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	<50.0	<100.0
	TRH C29- mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	<50.0	<100.0
	TRH C10- mg/kg	20 (Primary): 50 (Interlab)	<20.0	<20.0	0	<20.0	<50.0
	TRH C10- mg/kg	50	<50.0	<50.0	0	<50.0	<50.0

*RPDs have only been considered where a concentration is greater than 1 times the EQL

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 90 (1-10 x EQL); 50 (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

Field Duplicates (SOIL)
Filter: SDG In(17 Dec

Filter: SDG in 17 Dec		SDG Field ID Sampled Date/Time	9-Dec-21 T16-11 8/12/2021	9-Dec-21 T16-11-A 8/12/2021	RPD	10-Dec-21 T18-10 9/12/2021	10-Dec-21 T18-10A 9/12/2021	RPD	17-Dec-21 Q18-10 17/12/2021	17-Dec-21 Q18-10A 17/12/2021	RPD	10-Dec-21 T18-10 9/12/2021	ALSE-Sydney 15-Dec-21 T18-10B 9/12/2021	RPD	17-Dec-21 Q18-10 17/12/2021	ALSE-Sydney 21-Dec-21 Q18-10B 17/12/2021	RPD
Chem Gr	Chem/Units	EQL															
	Onethoat/mg/kg	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0	<2.0	0	<2.0			<2.0		
	Phosphorus/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Pyrazophos/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Terbufos /mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Tetrachlor/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
Naphthalene	Naphthalene/mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<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 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
OCs	Vic EPA N/mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			<0.1		
	Vic EPA N/mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			<0.1		
	Toxaphen/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
OPs	Mevinphos/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Naled (Dif)/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Tokuthion/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Trichloron/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
PAH/Phenols (SIM)	Sum of pol/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
SVOC	Demeton-/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Demeton-/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	EPN /mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
	Fensulfothr/mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			<0.2		
Volatile	Toluene /mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.5	0
	Benzene /mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.2	0	<0.1	<0.2	0
	Ethylbenz/mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.5	0
	m,p-Xylen/mg/kg	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.5	0	<0.2	<0.5	0
	o-Xylene /mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	<0.1	<0.5	0
	Xylenes - /mg/kg	0.3 (Primary): 0.5 (Interlab)	<0.3	<0.3	0	<0.3	<0.3	0	<0.3	<0.3	0	<0.3	<0.5	0	<0.3	<0.5	0
Inorganics	Moisture %	1	12.0	12.0	0	13.0	15.0	14	6.1	6.8	11	13.0		6.1			
Metals	Arsenic /mg/kg	2 (Primary): 5 (Interlab)	3.0	<2.0	40	3.0	4.7	44	10.0	12.0	18	3.0	20.0	148	10.0	11.0	10
	Cadmium /mg/kg	0.4 (Primary): 1 (Interlab)	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<1.0	0	<0.4	<1.0	0
	Chromium /mg/kg	5 (Primary): 2 (Interlab)	13.0	12.0	8	5.4	15.0	94	18.0	20.0	11	5.4	26.0	131	18.0	18.0	0
	Copper /mg/kg	5	32.0	27.0	17	9.3	25.0	92	41.0	43.0	5	9.3	29.0	103	41.0	47.0	14
	Lead /mg/kg	5	13.0	11.0	17	9.2	25.0	104	18.0	19.0	5	9.2	29.0	104	18.0	19.0	5
	Mercury /mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0
	Nickel /mg/kg	5 (Primary): 2 (Interlab)	11.0	8.3	28	5.7	17.0	100	24.0	25.0	4	5.7	22.0	118	24.0	32.0	29
	Zinc /mg/kg	5	53.0	36.0	38	36.0	100.0	94	81.0	88.0	8	36.0	100.0	94	81.0	85.0	5
Organic	TRH C6-C/mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0	<20.0	<10.0	0
	TRH C6-C/mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0	<20.0	<10.0	0
	TRH C6-C/mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0	<20.0	<10.0	0
	TRH >C10/mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	TRH >C10/mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0
	TRH >C16/mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
	TRH >C34/mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0
	TRH >C10/mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<50.0	0	<100.0	<50.0	0
PAH	Acenaphth/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Acenaphth/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Anthracen/mg/kg	0.5	<0.5	<0.5	0	<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	<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	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
Benzo(a)k/mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<									

***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.

Field Duplicates (SOL)		Field ID		17-Oct-21	ALISE Sydney 05-Nov-21	1-Nov-21	ALISE Sydney 05-Nov-21	
Filter: SDO W/C8 Nov		Sample Date/Time		R19-20	R19-20B	M19-20	M19-20B	RPO
Method	Chemical/Unit	Unit	Unit					
PCP	Organic	mg/kg	mg/kg	<0.1			<0.1	
	VC EPA 10mg/kg	0.1		<0.1			<0.1	
	VC EPA 20mg/kg	0.1		<0.1			<0.1	
OPP	Acetaminophen	mg/kg	mg/kg	<0.2			<0.2	
	Acetaminophen	mg/kg	mg/kg	<0.2			<0.2	
	APN	mg/kg	mg/kg	<0.2			<0.2	
	Paracetamol	mg/kg	mg/kg	<0.2			<0.2	
	Morphine	mg/kg	mg/kg	<0.2			<0.2	
	Naloxone	mg/kg	mg/kg	<0.2			<0.2	
	Propofol	mg/kg	mg/kg	<0.2			<0.2	
	Propofol	mg/kg	mg/kg	<0.2			<0.2	
	Propofol	mg/kg	mg/kg	<0.2			<0.2	
	Propofol	mg/kg	mg/kg	<0.2			<0.2	
Chronic	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
	Acetaminophen	mg/kg	mg/kg	<0.5			<0.5	
PMH	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
	Sum of opiates	mg/kg	mg/kg	<0.5			<0.5	
Volatile	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
	Volatiles	mg/kg	mg/kg	<0.1			<0.1	
Heavy Metals	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
	Metals	mg/kg	mg/kg	6.4			6.4	
Chronic	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
	Chronic	mg/kg	mg/kg	<10.0			<10.0	
PMH	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
	PMH	mg/kg	mg/kg	<0.5			<0.5	
PCB	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
	PCB	mg/kg	mg/kg	<0.1			<0.1	
PCP	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
	PCP	mg/kg	mg/kg	<0.05			<0.05	
OPP	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
	OPP	mg/kg	mg/kg	<0.2			<0.2	
TPH	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	
	TPH	mg/kg	mg/kg	<10.0			<10.0	

***Material Duplicates are matched on a per compound

Field Duplicates (SOI)
Filter: SDC in(11 Oct

Field Duplicates (SOL)			SDG	8-Sep-21	8-Sep-21		7-Oct-21	7-Oct-21		7-Oct-21	ALSE-Sydney 08-Oct-21		
Filter: SDG #11			Field ID	R16-454	R16-454	RPD	R16-504	R16-504	RPD	R16-508	R16-508	RPD	
			Sampled Date/Time	6/09/2021	6/09/2021		6/10/2021	6/10/2021		6/10/2021	6/10/2021		
Method	ChemName	Units	EQ										
OCP	Toxaphene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			
	Vic EPA N	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			
	Vic EPA N	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			
OPP	Demeton-	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Demeton-	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	EPN	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Fensulfot	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Mevinphos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Naled	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Omethoat	mg/kg	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0			
	Primiphos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Pyrazophos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Terbufos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Tokuthion	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Tetrachlor	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Trichloron	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2			
	Organic	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0
PAH	Sum of pmg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0		
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
Volatile	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.2	0	
	Ethylbenzene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	
	m,p-Xylene	mg/kg	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.5	0	
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0	
	Xylenes -	mg/kg	0.3 (Primary): 0.5 (Interlab)	<0.3	<0.3	0	<0.3	<0.3	0	<0.3	<0.5	0	
Inorganic	Moisture %	1	7.1	7.3	3	4.5	4.1	9	4.5				
Heavy Metal	Arsenic	mg/kg	2 (Primary): 5 (Interlab)	7.9	9.6	19	14.0	13.0	7	14.0	12.0	15	
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<1.0	0	
	Chromium	mg/kg	5 (Primary): 2 (Interlab)	18.0	19.0	5	21.0	18.0	15	21.0	17.0	21	
	Copper	mg/kg	5	43.0	44.0	2	41.0	39.0	5	41.0	48.0	16	
	Lead	mg/kg	5	18.0	19.0	5	16.0	14.0	13	16.0	14.0	13	
	Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Nickel	mg/kg	5 (Primary): 2 (Interlab)	22.0	22.0	0	27.0	23.0	16	27.0	28.0	4	
	Zinc	mg/kg	5	83.0	83.0	0	83.0	75.0	10	83.0	78.0	6	
	al												
	Organic	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0	
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<20.0	0	<20.0	<10.0	0	
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0	<50.0	<50.0	0	
	TRH >C16	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	
	TRH >C34	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0	<100.0	<100.0	0	
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Anthracen	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Fluoranth	mg/kg	0.5	<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	
	Benz(a)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(a)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(a)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(a)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(a)an	mg/kg	0.5	0.6	0.6	0	0.6	0.6	0	0.6	0.6	0	
	Benz(a)an	mg/kg	0.5	1.2	1.2	0	1.2	1.2	0	1.2	1.2	0	
	Benz(b)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(g)an	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	
	Benz(k)an	mg/kg	0.5	<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	
Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0		
Indeno(1,2)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0		
Phenanthr	mg/kg	0.5	<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		
PCB	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	PCBs (Sum)	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	
	OCP	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
		p-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
		Aldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
	Aldrin + D	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	p-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.05	0	
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.05	0	
	p-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	DDD	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	DDT	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.2	0	
	DDT	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Endosulfan	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Endosulfan	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Endrin	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Endrin al	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	p-BHC (L)	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Heptachlo	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Heptachlo	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Hexachlor	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Methoxycl	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	
	Methoxycl	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.2	0	
OPP	Azinphos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Azinphos	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorfenvi	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorfenvi	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorpyrif	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorpyrif	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorpyrif	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Chlorpyrif	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Coumatph	mg/kg	2	<2.0	<2.0	0	<2.0	<2.0	0	<2.0	<0.05	0	
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Diazinon	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Dichlorvos	mg/kg	0.2	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05	0	
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.05</		

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

***Inferlab 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.

Field Duplicates (SOL)
Filter: SDG (29 Jun)

Field ID			10-Jun-21	10-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	29-Jun

Field Duplicates (SOIL)
Filter: SDG in 08 Jul

SDG	Field ID	8-Jul-21	8-Jul-21	
Sampled Date/Time		DGTP36-0.2	DGTP36-0.2A	RPD
		7/07/2021	7/07/2021	

Method	Chem Name	Units	EQL		
OCP	Toxaphen	mg/kg	0.1	<0.1	<0.1
	Vic EPA II	mg/kg	0.1	<0.2	<0.2
	Vic EPA III	mg/kg	0.1	<0.2	<0.2
OPP	Demeton	mg/kg	0.2	<0.2	<0.2
	Demeton	mg/kg	0.2	<0.2	<0.2
	EPN	mg/kg	0.2	<0.2	<0.2
	Fensulfoth	mg/kg	0.2	<0.2	<0.2
	Mevinphos	mg/kg	0.2	<0.2	<0.2
	Naled	mg/kg	0.2	<0.2	<0.2
	Omethoat	mg/kg	2	<2.0	<2.0
	Phosphamidon	mg/kg	0.2	<0.2	<0.2
	Pyrazophos	mg/kg	0.2	<0.2	<0.2
	Terbufos	mg/kg	0.2	<0.2	<0.2
	Tokuthion	mg/kg	0.2	<0.2	<0.2
	Tetrachlor	mg/kg	0.2	<0.2	<0.2
	Trichloron	mg/kg	0.2	<0.2	<0.2
Organic	Naphthalene	mg/kg	0.5	<0.5	<0.5
PAH	Sum of pol	mg/kg	0.5	<0.5	<0.5
	Naphthalene	mg/kg	0.5	<0.5	<0.5
Volatile	Toluene	mg/kg	0.1	<0.1	<0.1
	Benzene	mg/kg	0.1	<0.1	<0.1
	Ethylbenz	mg/kg	0.1	<0.1	<0.1
	m,p-Xylene	mg/kg	0.2	<0.2	<0.2
	o-Xylene	mg/kg	0.1	<0.1	<0.1
	Xylenes -	mg/kg	0.3	<0.3	<0.3
Inorganic	Moisture C%	1		27.0	24.0
Heavy Metals	Arsenic	mg/kg	2	8.0	5.4
	Cadmium	mg/kg	0.4	<0.4	<0.4
	Chromium	mg/kg	5	15.0	12.0
	Copper	mg/kg	5	36.0	25.0
	Lead	mg/kg	5	18.0	10.0
	Mercury	mg/kg	0.1	<0.1	<0.1
	Nickel	mg/kg	5	8.1	7.0
	Zinc	mg/kg	5	35.0	30.0
Organic	TRH C6-C	mg/kg	20	<20.0	<20.0
	TRH C6-C	mg/kg	20	<20.0	<20.0
	TRH C6-C	mg/kg	20	<20.0	<20.0
	TRH >C10	mg/kg	50	<50.0	<50.0
	TRH >C10	mg/kg	50	<50.0	<50.0
	TRH >C10	mg/kg	100	130.0	<100.0
	TRH >C34	mg/kg	100	<100.0	<100.0
	TRH >C10	mg/kg	100	130.0	<100.0
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5
	Acenaphth	mg/kg	0.5	<0.5	<0.5
	Anthracen	mg/kg	0.5	<0.5	<0.5
	Fluoranth	mg/kg	0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5	<0.5	<0.5
	Benzo(a)l	mg/kg	0.5	<0.5	<0.5
	Benzo(a)l	mg/kg	0.5	<0.5	<0.5
	Benzo(a)l	mg/kg	0.5	<0.5	<0.5
	Benzo(a)l	mg/kg	0.5	0.6	0.6
	Benzo(a)l	mg/kg	0.5	1.2	1.2
	Benzo(b)k	mg/kg	0.5	<0.5	<0.5
	Benzo(g,h)	mg/kg	0.5	<0.5	<0.5
	Benzo(k)l	mg/kg	0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5	<0.5	<0.5
	Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5
	Indeno(1,2,3-cd)	mg/kg	0.5	<0.5	<0.5
	Phenanthr	mg/kg	0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5	<0.5	<0.5
PCB	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	Arochlor 1248	mg/kg	0.1	<0.1	<0.1
	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	Arochlor 1248	mg/kg	0.5	<0.5	<0.5
	PCBs (Sum)	mg/kg	0.5	<0.5	<0.5
OCP	4,4'-DDE	mg/kg	0.05	<0.05	<0.05
	a-BHC	mg/kg	0.05	<0.05	<0.05
	Aldrin	mg/kg	0.05	<0.05	<0.05
	Aldrin + D	mg/kg	0.05	<0.05	<0.05
	b-BHC	mg/kg	0.05	<0.05	<0.05
	Chlordane	mg/kg	0.1	<0.1	<0.1
	d-BHC	mg/kg	0.05	<0.05	<0.05
	DDD	mg/kg	0.05	<0.05	<0.05
	DDT	mg/kg	0.05	<0.05	<0.05
	DDT+DDE	mg/kg	0.05	<0.05	<0.05
	Dieldrin	mg/kg	0.05	<0.05	<0.05
	Endosulfat	mg/kg	0.05	<0.05	<0.05
	Endosulfat	mg/kg	0.05	<0.05	<0.05
	Endosulfat	mg/kg	0.05	<0.05	<0.05
	Endrin	mg/kg	0.05	<0.05	<0.05
	Endrin al	mg/kg	0.05	<0.05	<0.05
	Endrin ket	mg/kg	0.05	<0.05	<0.05
	g-BHC (L)	mg/kg	0.05	<0.05	<0.05
	Heptachlor	mg/kg	0.05	<0.05	<0.05
	Heptachlor	mg/kg	0.05	<0.05	<0.05
	Hexachlor	mg/kg	0.05	<0.05	<0.05
	Methoxych	mg/kg	0.2	<0.2	<0.2
OPP	Azinophos	mg/kg	0.2	<0.2	<0.2
	Chlorfenvin	mg/kg	0.2	<0.2	<0.2
	Chlorpyrif	mg/kg	0.2	<0.2	<0.2
	Chlorpyrif	mg/kg	0.2	<0.2	<0.2
	Coumaph	mg/kg	2	<2.0	<2.0
	Diazinon	mg/kg	0.2	<0.2	<0.2
	Dichlorvos	mg/kg	0.2	<0.2	<0.2
	Dimethoat	mg/kg	0.2	<0.2	<0.2
	Disulfoton	mg/kg	0.2	<0.2	<0.2
	Ethion	mg/kg	0.2	<0.2	<0.2
	Ethoprop	mg/kg	0.2	<0.2	<0.2
	Fenitrothi	mg/kg	0.2	<0.2	<0.2
	Fenthion	mg/kg	0.2	<0.2	<0.2
	Malathion	mg/kg	0.2	<0.2	<0.2
	Methyl par	mg/kg	0.2	<0.2	<0.2
	Monocroto	mg/kg	2	<2.0	<2.0
	Parathion	mg/kg	0.2	<0.2	<0.2
	Phorate	mg/kg	0.2	<0.2	<0.2
TPH	TRH C15	mg/kg	50	52.0	<50.0
	TRH C29	mg/kg	50	91.0	<50.0
	TRH C10	mg/kg	20	<20.0	<20.0
	TRH C10	mg/kg	50	143.0	<50.0

*RPDs have only been considered where a concentration is greater than 1 times the EQL

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x t

***Interlab Duplicates are matched on a per compound basis as methods vary between lab

***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.

SDG	16-Sep-21	16-Sep-21		16-Sep-21	ALSE-Sydney 27-Sep-21	
Field ID	DGTP 37-0.3	DGTP 37-0.3A	RPD	DGTP 37-0.3	DGTP 37-0.3B	RPD
Sampled Date/Time	10/09/2021	10/09/2021		10/09/2021	10/09/2021	

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to the corresponding compound.

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate

Field Duplicates (SOIL)

Filter: Lab_Report_Nt

Lab Report Number	892216	892216		892216	ES2218648
Field ID	BH46-V-N	D01_220526	RPD	BH46-V-N	T01_220526 RPD
Sampled Date/Time	26/05/2022	26/05/2022		26/05/2022	26/05/2022

Method	ChemName	Units	EQL						
Organic	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<1.0	0
Volatile	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)	<0.1	<0.1	0	<0.1	<0.2	0
	Ethylbenzene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0
	m&p-Xylene	mg/kg	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2	<0.5	0
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.5	0
	Xylenes -	mg/kg	0.3 (Primary): 0.5 (Interlab)	<0.3	<0.3	0	<0.3	<0.5	0
Inorganic	Moisture Content	%	1	11.0	12.0	9	11.0		
Organic	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0	0
	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0	0
	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0	<10.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0	<50.0	0
	TRH >C16	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0
	TRH >C34	mg/kg	100	<100.0	<100.0	0	<100.0	<100.0	0
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0	<50.0	0
TPH	TRH C15-C29	mg/kg	50 (Primary): 100 (Interlab)	<50.0	54.0	8	<50.0	<100.0	0
	TRH C29-C40	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	<50.0	<100.0	0
	TRH C10-C14	mg/kg	20 (Primary): 50 (Interlab)	<20.0	<20.0	0	<20.0	<50.0	0
	TRH C10-C14	mg/kg	50	<50.0	54.0	8	<50.0	<50.0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (10-30 x EQL); 30 (>

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the

Field Duplicates (WATER)
Filter: ALL

SDG	31-Jan-23	31-Jan-23		31-Jan-23
Field ID	S3-04	D01_230131	RPD	S3-04
Sampled Date/Time	31/01/2023	31/01/2023		31/01/2023

Chem_Gr	ChemNam	Units	EQL				
Phenols	Phenolics	µg/l	50	<50.0	<50.0	0	<50.0
TRH	C6-C10	µg/l	20	<20.0	<20.0	0	<20.0
	C6-C10 (F	µg/l	20	<20.0	<20.0	0	<20.0
	C10-C16	µg/l	50 (Primary): 100 (Interl	130.0	150.0	14	130.0
	C10-C16 (F	µg/l	50 (Primary): 100 (Interl	130.0	150.0	14	130.0
	C16-C34	µg/l	100	<100.0	<100.0	0	<100.0
	C34-C40	µg/l	100	<100.0	<100.0	0	<100.0
	C10-C40 (S	µg/l	100	130.0	150.0	14	130.0
BTEX	Benzene	µg/l	1	<1.0	<1.0	0	<1.0
	Toluene	µg/l	1 (Primary): 2 (Interlab)	<1.0	<1.0	0	<1.0
	Ethylbenze	µg/l	1 (Primary): 2 (Interlab)	<1.0	<1.0	0	<1.0
	Xylene (m	µg/l	2	<2.0	<2.0	0	<2.0
	Xylene (o)	µg/l	1 (Primary): 2 (Interlab)	<1.0	<1.0	0	<1.0
	Xylene Tot	µg/l	3 (Primary): 2 (Interlab)	<3.0	<3.0	0	<3.0
Halogenate	Hexachloro	µg/l	0.2 (Primary): 0.5 (Interl	<0.2	<0.2	0	<0.2
ed Benzenes							
Inorganics	Chlorine (T	mg/l	0.1	0.2	0.2	0	0.2
	Nitrite + Ni	mg/l	0.05 (Primary): 0.01 (Int	<0.05	<0.05	0	<0.05
	Alkalinity (E	mg/l	20 (Primary): 1 (Interlab)	630.0	600.0	5	630.0
	Alkalinity (C	mg/l	10 (Primary): 1 (Interlab)	<10.0	<10.0	0	<10.0
	Alkalinity (H	mg/l	20 (Primary): 1 (Interlab)	<20.0	<20.0	0	<20.0
	Alkalinity (T	mg/l	20 (Primary): 1 (Interlab)	630.0	600.0	5	630.0
	Ammonia a	mg/l	0.01	7.3	7.2	1	7.3
	Anions Tot	meq/L	0.01	224.71	221.18	2	224.71
	BOD	mg/l	5 (Primary): 2 (Interlab)	9.6	5.5	54	9.6
	Cations To	meq/L	0.01	187.4	191.82	2	187.4
	Chloride	mg/l	1	7500.0	7400.0	1	7500.0
	COD	mg/l	25 (Primary): 10 (Interla	470.0	300.0	44	470.0
	Electrical c	uS/cm	10 (Primary): 1 (Interlab)	19000.0	19000.0	0	19000.0
	Fluoride	mg/l	0.5 (Primary): 0.1 (Interl	<0.5	0.6	18	<0.5
	Fluoride	mg/l	0.5				
	Ionic Balan	%	0.01	9.1	7.1	25	9.1
	Kjeldahl Ni	mg/l	0.2 (Primary): 0.1 (Interl	7.0	7.8	11	7.0
	Nitrate (as	mg/l	0.02 (Primary): 0.01 (Int	<0.02	<0.02	0	<0.02
	Nitrite (as	mg/l	0.02 (Primary): 0.01 (Int	<0.02	<0.02	0	<0.02
	Nitrogen (T	µg/l	200 (Primary): 100 (Inter	7000.0	7800.0	11	7000.0
	Nitrogen (T	µg/l	100				
	Phosphate	mg/l	0.01	<0.01	<0.01	0	<0.01
	pH (Lab)	-	0.1 (Primary): 0.01 (Inter	7.3	7.2	1	7.3
	Sodium (Fi	mg/l	0.5 (Primary): 1 (Interlab)	3300.0	3500.0	6	3300.0
	Sodium	mg/l	0.5	3700.0	3800.0	3	3700.0
	Sulphate	mg/l	2	29.0	24.0	19	29.0
	TDS	mg/l	10	12000.0	11000.0	9	12000.0
	TOC	mg/l	5 (Primary): 1 (Interlab)	11.0	8.5	26	11.0

Filter: ALL

Field Duplicates (WATER)
Filter: ALL

SDG	31-Jan-23	31-Jan-23		31-Jan-23
Field ID	S3-04	D01_230131	RPD	S3-04
Sampled Date/Time	31/01/2023	31/01/2023		31/01/2023

	TSS	mg/l	5	24.0	16.0	40	24.0
Metals	Aluminium	mg/l	0.05 (Primary): 0.01 (Interlab)	<0.05	<0.05	0	<0.05
	Arsenic (Filter)	mg/l	0.001	0.047	0.052	10	0.047
	Barium (Filter)	mg/l	0.02 (Primary): 0.001 (Interlab)	23.0	22.0	4	23.0
	Cadmium (Filter)	mg/l	0.0002 (Primary): 0.0001 (Interlab)	<0.0002	<0.0002	0	<0.0002
	Calcium (Filter)	mg/l	0.5 (Primary): 1 (Interlab)	210.0	230.0	9	210.0
	Calcium	mg/l	0.5	230.0	230.0	0	230.0
	Chromium	mg/l	0.001	<0.001	<0.001	0	<0.001
	Cobalt (Filter)	mg/l	0.001	0.011	0.011	0	0.011
	Copper (Filter)	mg/l	0.001	<0.001	<0.001	0	<0.001
	Iron (Filter)	mg/l	0.05	0.7	0.78	11	0.7
	Lead (Filter)	mg/l	0.001	<0.001	<0.001	0	<0.001
	Magnesium	mg/l	0.5 (Primary): 1 (Interlab)	180.0	190.0	5	180.0
	Magnesium	mg/l	0.5	160.0	160.0	0	160.0
	Manganese	mg/l	0.005 (Primary): 0.001 (Interlab)	0.23	0.24	4	0.23
	Mercury (Filter)	mg/l	0.0001				
	Nickel (Filter)	mg/l	0.001	0.015	0.016	6	0.015
	Potassium	mg/l	0.5 (Primary): 1 (Interlab)	48.0	49.0	2	48.0
	Potassium	mg/l	0.5	50.0	53.0	6	50.0
	Zinc (Filter)	mg/l	0.005	<0.005	<0.005	0	<0.005
Organochlorine	Organochlorine	µg/l	2	<2.0	<2.0	0	<2.0
	Other organochlorine	µg/l	2	<2.0	<2.0	0	<2.0
	4,4-DDE	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	α-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Aldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Aldrin + Dieldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	β-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	γ-chlordane	µg/l	2 (Primary): 0.5 (Interlab)	<2.0	<2.0	0	<2.0
	δ-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	DDD	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	DDT	µg/l	0.2 (Primary): 2 (Interlab)	<0.2	<0.2	0	<0.2
	DDT+DDE	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Dieldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endrin aldehyde	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Endrin ketone	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	γ-BHC (Lindane)	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Heptachlor	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Heptachlor	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	0	<0.2
	Methoxychlor	µg/l	0.2 (Primary): 2 (Interlab)	<0.2	<0.2	0	<0.2
	Toxaphene	mg/l	0.005	<0.005	<0.005	0	<0.005
Organophosphate							
Organophosphate Pesticides							
Organophosphate	Tokuthion	mg/l	0.002	<0.002	<0.002	0	<0.002

Filter: ALL

Field Duplicates (WATER)
Filter: ALL

SDG	31-Jan-23	31-Jan-23		31-Jan-23
Field ID	S3-04	D01_230131	RPD	S3-04
Sampled Date/Time	31/01/2023	31/01/2023		31/01/2023

	Azinophos	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Bolstar (Su	µg/l	2	<2.0	<2.0	0	<2.0
	Chlorfenvir	µg/l	20 (Primary): 0.5 (Interla	<20.0	<20.0	0	<20.0
	Chlorpyrifo	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Chlorpyrifo	mg/l	0.002 (Primary): 0.0005	<0.002	<0.002	0	<0.002
	Coumapho	µg/l	20	<20.0	<20.0	0	<20.0
	Demeton-C	µg/l	2	<2.0	<2.0	0	<2.0
	Demeton-S	µg/l	2	<2.0	<2.0	0	<2.0
	Diazinon	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Dichlorvos	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Dimethoate	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Disulfoton	µg/l	2	<2.0	<2.0	0	<2.0
	Ethion	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Ethoprop	µg/l	2	<2.0	<2.0	0	<2.0
	Fenitrothio	µg/l	2	<2.0	<2.0	0	<2.0
	Fensulfothi	µg/l	2	<2.0	<2.0	0	<2.0
	Fenthion	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	EPN	µg/l	2	<2.0	<2.0	0	<2.0
	Malathion	µg/l	2 (Primary): 0.5 (Interlab	<2.0	<2.0	0	<2.0
	Merphos	mg/l	0.002	<0.002	<0.002	0	<0.002
	Methyl para	µg/l	2	<2.0	<2.0	0	<2.0
	Mevinphos	µg/l	2	<2.0	<2.0	0	<2.0
	Monocroto	µg/l	2	<2.0	<2.0	0	<2.0
	Naled (Dib	µg/l	2	<2.0	<2.0	0	<2.0
	Omethoate	µg/l	20	<20.0	<20.0	0	<20.0
	Phorate	µg/l	2	<2.0	<2.0	0	<2.0
	Pyrazopho	µg/l	2	<2.0	<2.0	0	<2.0
	Ronnel	µg/l	2	<2.0	<2.0	0	<2.0
	Terbufos	µg/l	2	<2.0	<2.0	0	<2.0
	Trichlorona	µg/l	2	<2.0	<2.0	0	<2.0
	Tetrachlorv	mg/l	0.002	<0.002	<0.002	0	<0.002
Phosphorous Pesticides							
PAH	Acenaphth	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Acenaphth	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01
	Acenaphth	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Acenaphth	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01
	Anthracene	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Anthracene	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01
	Benz(a)ant	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Benz(a)ant	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01
	Benzo(a) p	µg/l	1 (Primary): 0.5 (Interlab	<1.0	<1.0	0	<1.0
	Benzo(a) p	µg/l	0.01 (Primary): 0.5 (Inter	<0.01	<0.01	0	<0.01
	Benzo(b+j)	mg/l	0.001 (Primary): 0.0001	<0.001	<0.001	0	<0.001
	Benzo(b+j)	mg/l	0.00001 (Primary): 0.001	<0.0	<0.0	0	<0.0
	Benzo(g,h,i)	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Benzo(g,h,i)	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01
	Benzo(k)flu	µg/l	1 (Primary): 0.1 (Interlab	<1.0	<1.0	0	<1.0
	Benzo(k)flu	µg/l	0.01 (Primary): 1 (Interla	<0.01	<0.01	0	<0.01

Filter: ALL

Field Duplicates (WATER)

Filter: ALL

SDG	31-Jan-23	31-Jan-23		31-Jan-23
Field ID	S3-04	D01_230131	RPD	S3-04
Sampled Date/Time	31/01/2023	31/01/2023		31/01/2023

	Chrysene	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Chrysene	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Dibenz(a,h)	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Dibenz(a,h)	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Fluoranthene	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Fluoranthene	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Fluorene	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Fluorene	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Indeno(1,2,3-cd)	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Indeno(1,2,3-cd)	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Naphthalene	µg/l	10 (Primary): 5 (Interlab)	<10.0	<10.0	0	<10.0
	Naphthalene	µg/l	1 (Primary): 5 (Interlab)	<1.0	<1.0	0	<1.0
	Naphthalene	µg/l	0.01 (Primary): 5 (Interlab)	<0.02	<0.02	0	<0.02
	Phenanthrene	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Phenanthrene	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	Pyrene	µg/l	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	<1.0
	Pyrene	µg/l	0.01 (Primary): 1 (Interlab)	<0.01	<0.01	0	<0.01
	PAHs (Sum)	µg/l	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	0	<1.0
	PAHs (Sum)	µg/l	0.01 (Primary): 0.5 (Interlab)	<0.02	<0.02	0	<0.02
Pesticides	Parathion	µg/l	2	<2.0	<2.0	0	<2.0
	Pirimiphos	mg/l	0.02	<0.02	<0.02	0	<0.02
TPH	C6-C9	µg/l	20	<20.0	<20.0	0	<20.0
	C10-C14	µg/l	50	130.0	150.0	14	130.0
	C15-C28	µg/l	100	<100.0	<100.0	0	<100.0
	C29-C36	µg/l	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0
	C10-C36	µg/l	100 (Primary): 50 (Interlab)	130.0	150.0	14	130.0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (10

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. /

Field Duplicates (WATER)
Filter: ALL

SDG	ALSE-Sydney 02-Feb-23	
Field ID	T01_230131	RPD
Sampled Date/Time	31/01/2023	

Chem_Gr	ChemNam	Units	EQL		
Phenols	Phenolics	µg/l	50	<100.0	0
TRH	C6-C10	µg/l	20	<20.0	0
	C6-C10 (F)	µg/l	20	<20.0	0
	C10-C16	µg/l	50 (Primary): 100 (Interlab)	<100.0	26
	C10-C16 (F)	µg/l	50 (Primary): 100 (Interlab)	<100.0	26
	C16-C34	µg/l	100	<100.0	0
	C34-C40	µg/l	100	<100.0	0
	C10-C40 (S)	µg/l	100	<100.0	26
BTEX	Benzene	µg/l	1	<1.0	0
	Toluene	µg/l	1 (Primary): 2 (Interlab)	<2.0	0
	Ethylbenze	µg/l	1 (Primary): 2 (Interlab)	<2.0	0
	Xylene (m)	µg/l	2	<2.0	0
	Xylene (o)	µg/l	1 (Primary): 2 (Interlab)	<2.0	0
	Xylene Tot	µg/l	3 (Primary): 2 (Interlab)	<2.0	0
Halogenate	Hexachloro	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
ed Benzenes					
Inorganics	Chlorine (T)	mg/l	0.1		
	Nitrite + Ni	mg/l	0.05 (Primary): 0.01 (Interlab)	0.01	0
	Alkalinity (F)	mg/l	20 (Primary): 1 (Interlab)	751.0	18
	Alkalinity (C)	mg/l	10 (Primary): 1 (Interlab)	<1.0	0
	Alkalinity (H)	mg/l	20 (Primary): 1 (Interlab)	<1.0	0
	Alkalinity (T)	mg/l	20 (Primary): 1 (Interlab)	751.0	18
	Ammonia a	mg/l	0.01	7.41	1
	Anions Tot	meq/L	0.01	182.0	21
	BOD	mg/l	5 (Primary): 2 (Interlab)	8.0	18
	Cations To	meq/L	0.01	194.0	3
	Chloride	mg/l	1	5920.0	24
	COD	mg/l	25 (Primary): 10 (Interlab)	35.0	172
	Electrical c	µS/cm	10 (Primary): 1 (Interlab)	17900.0	6
	Fluoride	mg/l	0.5 (Primary): 0.1 (Interlab)	0.1	0
	Fluoride	mg/l	0.5		
	Ionic Balan	%	0.01	3.17	97
	Kjeldahl Ni	mg/l	0.2 (Primary): 0.1 (Interlab)	7.8	11
	Nitrate (as	mg/l	0.02 (Primary): 0.01 (Interlab)	0.01	0
	Nitrite (as	mg/l	0.02 (Primary): 0.01 (Interlab)	<0.01	0
	Nitrogen (T)	µg/l	200 (Primary): 100 (Interlab)	7800.0	11
	Nitrogen (T)	µg/l	100		
	Phosphate	mg/l	0.01		
	pH (Lab)	-	0.1 (Primary): 0.01 (Interlab)	7.76	6
	Sodium (Fi	mg/l	0.5 (Primary): 1 (Interlab)	3710.0	12
	Sodium	mg/l	0.5		
	Sulphate	mg/l	2		
	TDS	mg/l	10	12100.0	1
	TOC	mg/l	5 (Primary): 1 (Interlab)	13.0	17

Filter: ALL

Field Duplicates (WATER)
Filter: ALL

SDG	ALSE-Sydney 02-Feb-23
Field ID	T01_230131
Sampled Date/Time	31/01/2023
	RPD

	TSS	mg/l	5	84.0	111
Metals	Aluminium	mg/l	0.05 (Primary): 0.01 (Interlab)	0.02	0
	Arsenic (Filter)	mg/l	0.001	0.049	4
	Barium (Filter)	mg/l	0.02 (Primary): 0.001 (Interlab)	19.5	16
	Cadmium (Filter)	mg/l	0.0002 (Primary): 0.0001 (Interlab)	<0.0001	0
	Calcium (Filter)	mg/l	0.5 (Primary): 1 (Interlab)	324.0	43
	Calcium	mg/l	0.5		
	Chromium	mg/l	0.001	<0.001	0
	Cobalt (Filter)	mg/l	0.001	0.014	24
	Copper (Filter)	mg/l	0.001	<0.001	0
	Iron (Filter)	mg/l	0.05	0.81	15
	Lead (Filter)	mg/l	0.001	<0.001	0
	Magnesium	mg/l	0.5 (Primary): 1 (Interlab)	192.0	6
	Magnesium	mg/l	0.5		
	Manganese	mg/l	0.005 (Primary): 0.001 (Interlab)	0.259	12
	Mercury (Filter)	mg/l	0.0001		
	Nickel (Filter)	mg/l	0.001	0.02	29
	Potassium	mg/l	0.5 (Primary): 1 (Interlab)	45.0	6
	Potassium	mg/l	0.5		
	Zinc (Filter)	mg/l	0.005	0.011	75
Organochlorine	Organochlorine	µg/l	2		
	Other organochlorine	µg/l	2		
	4,4-DDE	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	α-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Aldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Aldrin + Dieldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	β-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	chlordane	µg/l	2 (Primary): 0.5 (Interlab)	<0.5	0
	δ-BHC	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	DDD	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	DDT	µg/l	0.2 (Primary): 2 (Interlab)	<2.0	0
	DDT+DDE	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Dieldrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endosulfan	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endrin	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endrin aldehyde	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Endrin ketone	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	γ-BHC (Lindane)	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Heptachlor	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Heptachlor	µg/l	0.2 (Primary): 0.5 (Interlab)	<0.5	0
	Methoxychlor	µg/l	0.2 (Primary): 2 (Interlab)	<2.0	0
	Toxaphene	mg/l	0.005		
Organophosphate					
Organophosphate	Tokuthion	mg/l	0.002		

Filter: ALL

Field Duplicates (WATER)
Filter: ALL

SDG	ALSE-Sydney 02-Feb-23	
Field ID	T01_230131	RPD
Sampled Date/Time	31/01/2023	

	Azinophos	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Bolstar (Su	µg/l	2		
	Chlorfenvir	µg/l	20 (Primary): 0.5 (Interla	<0.5	0
	Chlorpyrifo	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Chlorpyrifo	mg/l	0.002 (Primary): 0.0005	<0.0005	0
	Coumapho	µg/l	20		
	Demeton-C	µg/l	2		
	Demeton-S	µg/l	2		
	Diazinon	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Dichlorvos	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Dimethoate	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Disulfoton	µg/l	2		
	Ethion	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Ethoprop	µg/l	2		
	Fenitrothio	µg/l	2		
	Fensulfothi	µg/l	2		
	Fenthion	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	EPN	µg/l	2		
	Malathion	µg/l	2 (Primary): 0.5 (Interlab	<0.5	0
	Merphos	mg/l	0.002		
	Methyl para	µg/l	2	<2.0	0
	Mevinphos	µg/l	2		
	Monocroto	µg/l	2	<2.0	0
	Naled (Dib	µg/l	2		
	Omethoate	µg/l	20		
	Phorate	µg/l	2		
	Pyrazopho	µg/l	2		
	Ronnel	µg/l	2		
	Terbufos	µg/l	2		
	Trichlorona	µg/l	2		
	Tetrachlorv	mg/l	0.002		
	osphorous Pesticides				
PAH	Acenaphth	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Acenaphth	µg/l	0.01 (Primary): 1 (Interla	<0.1	0
	Acenaphth	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Acenaphth	µg/l	0.01 (Primary): 1 (Interla	<0.1	0
	Anthracene	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Anthracene	µg/l	0.01 (Primary): 1 (Interla	<0.1	0
	Benz(a)ant	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Benz(a)ant	µg/l	0.01 (Primary): 1 (Interla	<0.1	0
	Benzo(a) p	µg/l	1 (Primary): 0.5 (Interlab	<0.05	0
	Benzo(a) p	µg/l	0.01 (Primary): 0.5 (Inter	<0.05	0
	Benzo(b+j)	mg/l	0.001 (Primary): 0.0001	<0.0001	0
	Benzo(b+j)	mg/l	0.00001 (Primary): 0.001	<0.0001	0
	Benzo(g,h,	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Benzo(g,h,	µg/l	0.01 (Primary): 1 (Interla	<0.1	0
	Benzo(k)fl	µg/l	1 (Primary): 0.1 (Interlab	<0.1	0
	Benzo(k)fl	µg/l	0.01 (Primary): 1 (Interla	<0.1	0

Filter: ALL

Field Duplicates (WATER)
Filter: ALL

SDG	ALSE-Sydney 02-Feb-23	
Field ID	T01_230131	RPD
Sampled Date/Time	31/01/2023	

	Chrysene	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Chrysene	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Dibenz(a,h)	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Dibenz(a,h)	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Fluoranthene	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Fluoranthene	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Fluorene	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Fluorene	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Indeno(1,2)	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Indeno(1,2)	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Naphthalene	µg/l	10 (Primary): 5 (Interlab)	<0.1	0
	Naphthalene	µg/l	1 (Primary): 5 (Interlab)	<0.1	0
	Naphthalene	µg/l	0.01 (Primary): 5 (Interlab)	<0.1	0
	Phenanthrene	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Phenanthrene	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	Pyrene	µg/l	1 (Primary): 0.1 (Interlab)	<0.1	0
	Pyrene	µg/l	0.01 (Primary): 1 (Interlab)	<0.1	0
	PAHs (Sum)	µg/l	1 (Primary): 0.5 (Interlab)	<0.05	0
	PAHs (Sum)	µg/l	0.01 (Primary): 0.5 (Interlab)	<0.05	0
Pesticides	Parathion	µg/l	2	<2.0	0
	Pirimiphos	mg/l	0.02		
TPH	C6-C9	µg/l	20	<20.0	0
	C10-C14	µg/l	50	<50.0	89
	C15-C28	µg/l	100	<100.0	0
	C29-C36	µg/l	100 (Primary): 50 (Interlab)	<50.0	0
	C10-C36	µg/l	100 (Primary): 50 (Interlab)	<50.0	89

*RPDs have only been considered where a concentration is reported
**High RPDs are in bold (Acceptable RPDs for each EQ-30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound Any methods in the row header re

Field Duplicates (SOIL)
Filter: Lab_Report_Nui

Lab Report Number	ES2030511	ES2030511	
Field ID	LCS-1	LCS-1A	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

Chem_Gr	ChemNam	Units	EQL			
	Omethoate	mg/kg	2			
	Pirimiphos	mg/kg	0.2			
	Pyrazopho	mg/kg	0.2			
	Terbufos	mg/kg	0.2			
	Tetrachlor	mg/kg	0.2			
Moisture C	Moisture C	%	1	5.6	6.6	16
Content						
Naphthaler	Naphthaler	mg/kg	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	0
	Naphthaler	mg/kg	0.5	<0.5	<0.5	0
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab)			
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab)			
ne						
OCP	Vic EPA IV	mg/kg	0.1			
	Vic EPA IV	mg/kg	0.1			
OCs	Toxaphene	mg/kg	0.5			
OPs	Mevinphos	mg/kg	0.2			
	Naled (Dib	mg/kg	0.2			
	Tokuthion	mg/kg	0.2			
	Trichlorona	mg/kg	0.2			
PAH/Phen	Sum of pol	mg/kg	0.5	<0.5	<0.5	0
ols (SIM)						
pH	pH (aqueo	pH units	0.1			
SVOC	Demeton-C	mg/kg	0.2			
	Demeton-S	mg/kg	0.2			
	EPN	mg/kg	0.2			
	Fensulfothi	mg/kg	0.2			
TRH Volati	Sum of BT	mg/kg	0.2	<0.2	<0.2	0
iles/BTEX						
Volatile	Toluene	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)			
	Benzene	mg/kg	0.2 (Primary): 0.1 (Interl	<0.2	<0.2	0
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)			
	Ethylbenze	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0
	Ethylbenze	mg/kg	0.1 (Primary): 0.5 (Interlab)			
	m&p-Xylen	mg/kg	0.5 (Primary): 0.2 (Interl	<0.5	<0.5	0
	m&p-Xylen	mg/kg	0.2 (Primary): 0.5 (Interlab)			
	o-Xylene	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.5	0
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interlab)			
	Xylenes - T	mg/kg	0.5 (Primary): 0.3 (Interl	<0.5	<0.5	0
	Xylenes - T	mg/kg	0.3 (Primary): 0.5 (Interlab)			

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)
Filter: Lab_Report_Nu

Lab Report Number	ES2030511	ES2030511	
Field ID	LCS-1	LCS-1A	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

Inorganics	Moisture C	%	1			
Metals	Arsenic	mg/kg	5 (Primary): 2 (Interlab)	<5.0	<5.0	0
	Arsenic	mg/kg	2 (Primary): 5 (Interlab)			
	Cadmium	mg/kg	1 (Primary): 0.4 (Interlab)	<1.0	<1.0	0
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)			
	Chromium	mg/kg	5 (Primary): 2 (Interlab)			
	Chromium	mg/kg	2 (Primary): 5 (Interlab)	8.0	7.0	13
	Copper	mg/kg	5	5.0	<5.0	0
	Lead	mg/kg	5	11.0	11.0	0
	Mercury	mg/kg	0.1	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 2 (Interlab)			
	Nickel	mg/kg	2 (Primary): 5 (Interlab)	<2.0	<2.0	0
	Zinc	mg/kg	5	14.0	13.0	7
Organic	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<10.0	0
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<10.0	0
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<10.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C16	mg/kg	100	<100.0	<100.0	0
	TRH >C34	mg/kg	100	<100.0	<100.0	0
	TRH >C10	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)			
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Anthracene	mg/kg	0.5	<0.5	<0.5	0
	Fluoranth	mg/kg	0.5	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	<0.5	0
	Benz(a)ant	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	0.6	0.6	0
	Benzo(a)py	mg/kg	0.5	1.2	1.2	0
	Benzo(b&j)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(g,h)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(k)flu	mg/kg	0.5	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	<0.5	0
	Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5	0
	Indeno(1,2	mg/kg	0.5	<0.5	<0.5	0
	Phenanthre	mg/kg	0.5	<0.5	<0.5	0
	Pyrene	mg/kg	0.5	<0.5	<0.5	0
PCBs	Arochlor 1	mg/kg	0.1			

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	ES2030511	ES2030511	
Field ID	LCS-1	LCS-1A	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	PCBs (Sun	mg/kg	0.1			
	PCBs (Sun	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0
Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Azinophos	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Azinophos	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	b-BHC	mg/kg	0.05	<0.05	<0.05	0
	Bromophos	mg/kg	0.05	<0.05	<0.05	0
	Carbophen	mg/kg	0.05	<0.05	<0.05	0
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Interlab)			
	Chlordane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0
	Chlordane	mg/kg	0.05	<0.05	<0.05	0
	Chlordane	mg/kg	0.05	<0.05	<0.05	0
	Chlorfenvin	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Chlorfenvin	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Coumaphos	mg/kg	2			
	d-BHC	mg/kg	0.05	<0.05	<0.05	0
	DDD	mg/kg	0.05	<0.05	<0.05	0
	DDT	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.2	<0.2	0
	DDT	mg/kg	0.05 (Primary): 0.2 (Interlab)			
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0
	Demeton-S	mg/kg	0.05	<0.05	<0.05	0
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Diazinon	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Dichlorvos	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Dimethoate	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Dimethoate	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Disulfoton	mg/kg	0.2			
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endrin	mg/kg	0.05	<0.05	<0.05	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	ES2030511	ES2030511	
Field ID	LCS-1	LCS-1A	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

	Endrin alde	mg/kg	0.05	<0.05	<0.05	0
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0
	Ethion	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Ethion	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Ethoprop	mg/kg	0.2			
	Fenamiphos	mg/kg	0.05	<0.05	<0.05	0
	Fenitrothion	mg/kg	0.2			
	Fenthion	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Fenthion	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	g-BHC (Lin)	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Hexachlor	mg/kg	0.05	<0.05	<0.05	0
	Malathion	mg/kg	0.2 (Primary): 0.05 (Interlab)			
	Malathion	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.05	<0.05	0
	Methoxychlor	mg/kg	0.2	<0.2	<0.2	0
	Methoxychlor	mg/kg	0.05 (Primary): 0.2 (Interlab)			
	Methyl para	mg/kg	0.2	<0.2	<0.2	0
	Monocrotophos	mg/kg	2 (Primary): 0.2 (Interlab)			
	Monocrotophos	mg/kg	0.2 (Primary): 2 (Interlab)	<0.2	<0.2	0
	Parathion	mg/kg	0.2	<0.2	<0.2	0
	Phorate	mg/kg	0.2			
	Pirimphos	mg/kg	0.05	<0.05	<0.05	0
	Prothiofos	mg/kg	0.05	<0.05	<0.05	0
	Ronnel	mg/kg	0.2			
	Bolstar (Sulfon)	mg/kg	0.2			
	Merphos	mg/kg	0.2			
TPH	TRH C15-Cl	mg/kg	50 (Primary): 100 (Interlab)			
	TRH C15-Cl	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0
	TRH C29-Cl	mg/kg	50 (Primary): 100 (Interlab)			
	TRH C29-Cl	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0
	TRH C10-Cl	mg/kg	50 (Primary): 20 (Interlab)	<50.0	<50.0	0
	TRH C10-Cl	mg/kg	20 (Primary): 50 (Interlab)			
	TRH C10-Cl	mg/kg	50	<50.0	<50.0	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 80 (1-10 x EQL); 50 (10-100 x EQL); 20 (100-1000 x EQL)).

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. /

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	856048	856048
Field ID	GLADESVILLE 8	GLADESVILLE 8A
Sampled Date/Time	12/01/2022	12/01/2022

Chem_Gr	ChemNam	Units	EQL			
	Omethoate	mg/kg	2	<2.0	<2.0	0
	Pirimiphos	mg/kg	0.2	<0.2	<0.2	0
	Pyrazopho	mg/kg	0.2	<0.2	<0.2	0
	Terbufos	mg/kg	0.2	<0.2	<0.2	0
	Tetrachlor	mg/kg	0.2	<0.2	<0.2	0
Moisture C	Moisture C	%	1			
Content						
Naphthaler	Naphthaler	mg/kg	1 (Primary): 0.5 (Interlab			
	Naphthaler	mg/kg	0.5			
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0
ne						
OCP	Vic EPA IV	mg/kg	0.1	<0.1	<0.1	0
	Vic EPA IV	mg/kg	0.1	<0.1	<0.1	0
OCs	Toxaphene	mg/kg	0.5	<0.5	<0.5	0
OPs	Mevinphos	mg/kg	0.2	<0.2	<0.2	0
	Naled (Dib	mg/kg	0.2	<0.2	<0.2	0
	Tokuthion	mg/kg	0.2	<0.2	<0.2	0
	Trichlorona	mg/kg	0.2	<0.2	<0.2	0
PAH/Phen	Sum of pol	mg/kg	0.5	<0.5	<0.5	0
ols (SIM)						
pH	pH (aqueo	pH units	0.1	5.2	5.0	4
SVOC	Demeton-C	mg/kg	0.2	<0.2	<0.2	0
	Demeton-S	mg/kg	0.2	<0.2	<0.2	0
	EPN	mg/kg	0.2	<0.2	<0.2	0
	Fensulfothi	mg/kg	0.2	<0.2	<0.2	0
TRH Volati	Sum of BT	mg/kg	0.2			
iles/BTEX						
Volatile	Toluene	mg/kg	0.5 (Primary): 0.1 (Interl			
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0
	Benzene	mg/kg	0.2 (Primary): 0.1 (Interl			
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interl	<0.1	<0.1	0
	Ethylbenze	mg/kg	0.5 (Primary): 0.1 (Interl			
	Ethylbenze	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0
	m&p-Xylen	mg/kg	0.5 (Primary): 0.2 (Interl			
	m&p-Xylen	mg/kg	0.2 (Primary): 0.5 (Interl	<0.2	<0.2	0
	o-Xylene	mg/kg	0.5 (Primary): 0.1 (Interl			
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0
	Xylenes - T	mg/kg	0.5 (Primary): 0.3 (Interl			
	Xylenes - T	mg/kg	0.3 (Primary): 0.5 (Interl	<0.3	<0.3	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	856048	856048
Field ID	GLADESVILLE 8	GLADESVILLE 8A
Sampled Date/Time	12/01/2022	12/01/2022

Inorganics	Moisture C	%	1	9.0	9.0	0
Metals	Arsenic	mg/kg	5 (Primary): 2 (Interlab)			
	Arsenic	mg/kg	2 (Primary): 5 (Interlab)	<2.0	<2.0	0
	Cadmium	mg/kg	1 (Primary): 0.4 (Interlab)			
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)	<0.4	<0.4	0
	Chromium	mg/kg	5 (Primary): 2 (Interlab)	6.0	6.7	11
	Chromium	mg/kg	2 (Primary): 5 (Interlab)			
	Copper	mg/kg	5	<5.0	<5.0	0
	Lead	mg/kg	5	6.7	7.3	9
	Mercury	mg/kg	0.1	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 2 (Interlab)	<5.0	<5.0	0
	Nickel	mg/kg	2 (Primary): 5 (Interlab)			
	Zinc	mg/kg	5	15.0	16.0	6
Organic	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)			
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)			
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)			
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C16	mg/kg	100	<100.0	<100.0	0
	TRH >C34	mg/kg	100	<100.0	<100.0	0
	TRH >C10	mg/kg	50 (Primary): 100 (Interlab)			
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Anthracene	mg/kg	0.5	<0.5	<0.5	0
	Fluoranth	mg/kg	0.5	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	<0.5	0
	Benz(a)ant	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	0.6	0.6	0
	Benzo(a)py	mg/kg	0.5	1.2	1.2	0
	Benzo(b&j)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(g,h)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(k)flu	mg/kg	0.5	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	<0.5	0
	Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5	0
	Indeno(1,2	mg/kg	0.5	<0.5	<0.5	0
	Phenanthre	mg/kg	0.5	<0.5	<0.5	0
	Pyrene	mg/kg	0.5	<0.5	<0.5	0
PCBs	Arochlor 1	mg/kg	0.1	<0.1	<0.1	0

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	856048	856048	
Field ID	GLADESVILLE 8	GLADESVILLE 8A	RPD
Sampled Date/Time	12/01/2022	12/01/2022	

	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0
	PCBs (Sum)	mg/kg	0.1	<0.1	<0.1	0
	PCBs (Sum)	mg/kg	0.1 (Primary): 0.5 (Interl			
Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Azinophos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Azinophos	mg/kg	0.05 (Primary): 0.2 (Inter			
	b-BHC	mg/kg	0.05	<0.05	<0.05	0
	Bromophos	mg/kg	0.05			
	Carbophen	mg/kg	0.05			
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Inter	<0.1	<0.1	0
	Chlordane	mg/kg	0.05 (Primary): 0.1 (Inter			
	Chlordane	mg/kg	0.05			
	Chlordane	mg/kg	0.05			
	Chlorfenvin	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Chlorfenvin	mg/kg	0.05 (Primary): 0.2 (Inter			
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter			
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter			
	Coumaphos	mg/kg	2	<2.0	<2.0	0
	d-BHC	mg/kg	0.05	<0.05	<0.05	0
	DDD	mg/kg	0.05	<0.05	<0.05	0
	DDT	mg/kg	0.2 (Primary): 0.05 (Inter			
	DDT	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.05	0
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0
	Demeton-S	mg/kg	0.05			
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Diazinon	mg/kg	0.05 (Primary): 0.2 (Inter			
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Dichlorvos	mg/kg	0.05 (Primary): 0.2 (Inter			
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Dimethoate	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Dimethoate	mg/kg	0.05 (Primary): 0.2 (Inter			
	Disulfoton	mg/kg	0.2	<0.2	<0.2	0
	Endosulfar	mg/kg	0.05			
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endrin	mg/kg	0.05	<0.05	<0.05	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)
Filter: Lab_Report_Nu

Lab Report Number	856048	856048	
Field ID	GLADESVILLE 8	GLADESVILLE 8A	RPD
Sampled Date/Time	12/01/2022	12/01/2022	

	Endrin alde	mg/kg	0.05	<0.05	<0.05	0
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0
	Ethion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Ethion	mg/kg	0.05 (Primary): 0.2 (Inter			
	Ethoprop	mg/kg	0.2	<0.2	<0.2	0
	Fenamiph	mg/kg	0.05			
	Fenitrothi	mg/kg	0.2	<0.2	<0.2	0
	Fenthion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Fenthion	mg/kg	0.05 (Primary): 0.2 (Inter			
	g-BHC (Lin	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Hexachlor	mg/kg	0.05	<0.05	<0.05	0
	Malathion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0
	Malathion	mg/kg	0.05 (Primary): 0.2 (Inter			
	Methoxych	mg/kg	0.2			
	Methoxych	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.05	0
	Methyl para	mg/kg	0.2	<0.2	<0.2	0
	Monocroto	mg/kg	2 (Primary): 0.2 (Interlab	<2.0	<2.0	0
	Monocroto	mg/kg	0.2 (Primary): 2 (Interlab			
	Parathion	mg/kg	0.2	<0.2	<0.2	0
	Phorate	mg/kg	0.2	<0.2	<0.2	0
	Pirimphos-	mg/kg	0.05			
	Prothiofos	mg/kg	0.05			
	Ronnel	mg/kg	0.2	<0.2	<0.2	0
	Bolstar (Su	mg/kg	0.2	<0.2	<0.2	0
	Merphos	mg/kg	0.2	<0.2	<0.2	0
TPH	TRH C15-C	mg/kg	50 (Primary): 100 (Interla	<50.0	<50.0	0
	TRH C15-C	mg/kg	100 (Primary): 50 (Interla			
	TRH C29-C	mg/kg	50 (Primary): 100 (Interla	60.0	<50.0	18
	TRH C29-C	mg/kg	100 (Primary): 50 (Interla			
	TRH C10-C	mg/kg	50 (Primary): 20 (Interla			
	TRH C10-C	mg/kg	20 (Primary): 50 (Interla	<20.0	<20.0	0
	TRH C10-C	mg/kg	50	60.0	<50.0	18

*RPDs have only been considered where a concentration

**High RPDs are in bold (Acceptable RPDs for each EQL)-30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis. Any methods in the row header relate to those

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	876201	876201		856048
Field ID	CH-3	CH-3A	RPD	GLADESVILLE 8
Sampled Date/Time	31/03/2022	31/03/2022		12/01/2022

Chem_Gr	ChemNam	Units	EQL				
	Omethoate	mg/kg	2	<2.0	<2.0	0	<2.0
	Pirimiphos	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Pyrazopho	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Terbufos	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Tetrachlor	mg/kg	0.2	<0.2	<0.2	0	<0.2
Moisture C	Moisture C	%	1				
Content							
Naphthaler	Naphthaler	mg/kg	1 (Primary): 0.5 (Interlab				
	Naphthaler	mg/kg	0.5				
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	<0.5	0	<0.5
ne							
OCP	Vic EPA IV	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Vic EPA IV	mg/kg	0.1	<0.1	<0.1	0	<0.1
OCs	Toxaphene	mg/kg	0.5	<0.5	<0.5	0	<0.5
OPs	Mevinphos	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Naled (Dib	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Tokuthion	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Trichlorona	mg/kg	0.2	<0.2	<0.2	0	<0.2
PAH/Phen	Sum of pol	mg/kg	0.5	<0.5	<0.5	0	<0.5
ols (SIM)							
pH	pH (aqueo	pH units	0.1	5.6	5.7	2	5.2
SVOC	Demeton-C	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Demeton-S	mg/kg	0.2	<0.2	<0.2	0	<0.2
	EPN	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Fensulfothi	mg/kg	0.2	<0.2	<0.2	0	<0.2
TRH Volati	Sum of BT	mg/kg	0.2				
iles/BTEX							
Volatile	Toluene	mg/kg	0.5 (Primary): 0.1 (Interl				
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0	<0.1
	Benzene	mg/kg	0.2 (Primary): 0.1 (Interl				
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interl	<0.1	<0.1	0	<0.1
	Ethylbenze	mg/kg	0.5 (Primary): 0.1 (Interl				
	Ethylbenze	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0	<0.1
	m&p-Xylen	mg/kg	0.5 (Primary): 0.2 (Interl				
	m&p-Xylen	mg/kg	0.2 (Primary): 0.5 (Interl	<0.2	<0.2	0	<0.2
	o-Xylene	mg/kg	0.5 (Primary): 0.1 (Interl				
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.1	0	<0.1
	Xylenes - T	mg/kg	0.5 (Primary): 0.3 (Interl				
	Xylenes - T	mg/kg	0.3 (Primary): 0.5 (Interl	<0.3	<0.3	0	<0.3

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)
Filter: Lab_Report_Nu

Lab Report Number	876201	876201	856048
Field ID	CH-3	CH-3A	GLADESVILLE 8
Sampled Date/Time	31/03/2022	31/03/2022	12/01/2022

Inorganics	Moisture C	%	1	12.0	11.0	9	9.0
Metals	Arsenic	mg/kg	5 (Primary): 2 (Interlab)				
	Arsenic	mg/kg	2 (Primary): 5 (Interlab)	2.9	2.5	15	<2.0
	Cadmium	mg/kg	1 (Primary): 0.4 (Interlab)				
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)	<0.4	<0.4	0	<0.4
	Chromium	mg/kg	5 (Primary): 2 (Interlab)	9.5	8.2	15	6.0
	Chromium	mg/kg	2 (Primary): 5 (Interlab)				
	Copper	mg/kg	5	<5.0	<5.0	0	<5.0
	Lead	mg/kg	5	15.0	11.0	31	6.7
	Mercury	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Nickel	mg/kg	5 (Primary): 2 (Interlab)	<5.0	<5.0	0	<5.0
	Nickel	mg/kg	2 (Primary): 5 (Interlab)				
	Zinc	mg/kg	5	29.0	24.0	19	15.0
Organic	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)				
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)				
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<20.0	<20.0	0	<20.0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)				
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0
	TRH >C10	mg/kg	50	<50.0	<50.0	0	<50.0
	TRH >C16	mg/kg	100	<100.0	<100.0	0	<100.0
	TRH >C34	mg/kg	100	<100.0	<100.0	0	<100.0
	TRH >C10	mg/kg	50 (Primary): 100 (Interlab)				
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)	<100.0	<100.0	0	<100.0
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Anthracene	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Fluoranth	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Fluorene	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benz(a)ant	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benzo(a)py	mg/kg	0.5	0.6	0.6	0	0.6
	Benzo(a)py	mg/kg	0.5	1.2	1.2	0	1.2
	Benzo(b&j)	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benzo(g,h,i)	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Benzo(k)flu	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Chrysene	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Indeno(1,2,3-cd)	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Phenanthrene	mg/kg	0.5	<0.5	<0.5	0	<0.5
	Pyrene	mg/kg	0.5	<0.5	<0.5	0	<0.5
PCBs	Arochlor 1248	mg/kg	0.1	<0.1	<0.1	0	<0.1

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	876201	876201		856048
Field ID	CH-3	CH-3A	RPD	GLADESVILLE 8
Sampled Date/Time	31/03/2022	31/03/2022		12/01/2022

	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	Arochlor 12	mg/kg	0.1	<0.1	<0.1	0	<0.1
	PCBs (Sum)	mg/kg	0.1	<0.1	<0.1	0	<0.1
	PCBs (Sum)	mg/kg	0.1 (Primary): 0.5 (Interl				
Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0	<0.05
	a-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Aldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Azinophos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Azinophos	mg/kg	0.05 (Primary): 0.2 (Inter				
	b-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Bromophos	mg/kg	0.05				
	Carbophen	mg/kg	0.05				
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Inter	<0.1	<0.1	0	<0.1
	Chlordane	mg/kg	0.05 (Primary): 0.1 (Inter				
	Chlordane	mg/kg	0.05				
	Chlordane	mg/kg	0.05				
	Chlorfenvin	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Chlorfenvin	mg/kg	0.05 (Primary): 0.2 (Inter				
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter				
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter				
	Coumaphos	mg/kg	2	<2.0	<2.0	0	<2.0
	d-BHC	mg/kg	0.05	<0.05	<0.05	0	<0.05
	DDD	mg/kg	0.05	<0.05	<0.05	0	<0.05
	DDT	mg/kg	0.2 (Primary): 0.05 (Inter				
	DDT	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.05	0	<0.05
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Demeton-S	mg/kg	0.05				
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Diazinon	mg/kg	0.05 (Primary): 0.2 (Inter				
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Dichlorvos	mg/kg	0.05 (Primary): 0.2 (Inter				
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Dimethoate	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Dimethoate	mg/kg	0.05 (Primary): 0.2 (Inter				
	Disulfoton	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Endosulfar	mg/kg	0.05				
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Endrin	mg/kg	0.05	<0.05	<0.05	0	<0.05

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	876201	876201	856048
Field ID	CH-3	CH-3A	GLADESVILLE 8
Sampled Date/Time	31/03/2022	31/03/2022	12/01/2022

	Endrin alde	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Ethion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Ethion	mg/kg	0.05 (Primary): 0.2 (Inter				
	Ethoprop	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Fenamiph	mg/kg	0.05				
	Fenitrothi	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Fenthion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Fenthion	mg/kg	0.05 (Primary): 0.2 (Inter				
	g-BHC (Lin	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Hexachlor	mg/kg	0.05	<0.05	<0.05	0	<0.05
	Malathion	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.2	0	<0.2
	Malathion	mg/kg	0.05 (Primary): 0.2 (Inter				
	Methoxych	mg/kg	0.2				
	Methoxych	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.05	0	<0.05
	Methyl para	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Monocroto	mg/kg	2 (Primary): 0.2 (Interlab	<2.0	<2.0	0	<2.0
	Monocroto	mg/kg	0.2 (Primary): 2 (Interlab				
	Parathion	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Phorate	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Pirimphos-	mg/kg	0.05				
	Prothiofos	mg/kg	0.05				
	Ronnel	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Bolstar (Su	mg/kg	0.2	<0.2	<0.2	0	<0.2
	Merphos	mg/kg	0.2	<0.2	<0.2	0	<0.2
TPH	TRH C15-C	mg/kg	50 (Primary): 100 (Interla	<50.0	<50.0	0	<50.0
	TRH C15-C	mg/kg	100 (Primary): 50 (Interla				
	TRH C29-C	mg/kg	50 (Primary): 100 (Interla	<50.0	<50.0	0	60.0
	TRH C29-C	mg/kg	100 (Primary): 50 (Interla				
	TRH C10-C	mg/kg	50 (Primary): 20 (Interla				
	TRH C10-C	mg/kg	20 (Primary): 50 (Interla	<20.0	<20.0	0	<20.0
	TRH C10-C	mg/kg	50	<50.0	<50.0	0	60.0

*RPDs have only been considered where a concentration

**High RPDs are in bold (Acceptable RPDs for each EQL

***Interlab Duplicates are matched on a per compound ba used in the primary laboratory

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	ES2201849	876201	ES2212037
Field ID	Gladesville 8B RPD	CH-3	CH-3B RPD
Sampled Date/Time	12/01/2022	31/03/2022	31/03/2022

Chem_Gr	ChemNam	Units	EQL					
	Omethoate	mg/kg	2			<2.0		
	Pirimiphos	mg/kg	0.2			<0.2		
	Pyrazopho	mg/kg	0.2			<0.2		
	Terbufos	mg/kg	0.2			<0.2		
	Tetrachlorv	mg/kg	0.2			<0.2		
Moisture C	Moisture C	%	1					
Content								
Naphthaler	Naphthaler	mg/kg	1 (Primary): 0.5 (Interlab					
	Naphthaler	mg/kg	0.5					
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	0	<0.5	<0.5	0
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab	<0.5	0	<0.5	<0.5	0
ne								
OCP	Vic EPA IV	mg/kg	0.1			<0.1		
	Vic EPA IV	mg/kg	0.1			<0.1		
OCs	Toxaphene	mg/kg	0.5			<0.5		
OPs	Mevinphos	mg/kg	0.2			<0.2		
	Naled (Dib	mg/kg	0.2			<0.2		
	Tokuthion	mg/kg	0.2			<0.2		
	Trichlorona	mg/kg	0.2			<0.2		
PAH/Phen	Sum of pol	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
ols (SIM)								
pH	pH (aqueo	pH units	0.1			5.6		
SVOC	Demeton-C	mg/kg	0.2			<0.2		
	Demeton-S	mg/kg	0.2			<0.2		
	EPN	mg/kg	0.2			<0.2		
	Fensulfothi	mg/kg	0.2			<0.2		
TRH Volati	Sum of BT	mg/kg	0.2					
iles/BTEX								
Volatile	Toluene	mg/kg	0.5 (Primary): 0.1 (Interl					
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.5	0	<0.1	<0.5	0
	Benzene	mg/kg	0.2 (Primary): 0.1 (Interl					
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interl	<0.2	0	<0.1	<0.2	0
	Ethylbenze	mg/kg	0.5 (Primary): 0.1 (Interl					
	Ethylbenze	mg/kg	0.1 (Primary): 0.5 (Interl	<0.5	0	<0.1	<0.5	0
	m&p-Xylen	mg/kg	0.5 (Primary): 0.2 (Interl					
	m&p-Xylen	mg/kg	0.2 (Primary): 0.5 (Interl	<0.5	0	<0.2	<0.5	0
	o-Xylene	mg/kg	0.5 (Primary): 0.1 (Interl					
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interl	<0.5	0	<0.1	<0.5	0
	Xylenes - T	mg/kg	0.5 (Primary): 0.3 (Interl					
	Xylenes - T	mg/kg	0.3 (Primary): 0.5 (Interl	<0.5	0	<0.3	<0.5	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)
Filter: Lab_Report_Nu

Lab Report Number	ES2201849	876201	ES2212037
Field ID	Gladesville 8B	CH-3	CH-3B
Sampled Date/Time	12/01/2022	31/03/2022	31/03/2022
	RPD		RPD

Inorganics	Moisture C	%	1			12.0		
Metals	Arsenic	mg/kg	5 (Primary): 2 (Interlab)					
	Arsenic	mg/kg	2 (Primary): 5 (Interlab)	<5.0	0	2.9	<5.0	0
	Cadmium	mg/kg	1 (Primary): 0.4 (Interlab)					
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)	<1.0	0	<0.4	<1.0	0
	Chromium	mg/kg	5 (Primary): 2 (Interlab)	7.0	15	9.5	9.0	5
	Chromium	mg/kg	2 (Primary): 5 (Interlab)					
	Copper	mg/kg	5	5.0	0	<5.0	<5.0	0
	Lead	mg/kg	5	10.0	40	15.0	12.0	22
	Mercury	mg/kg	0.1	<0.1	0	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 2 (Interlab)	3.0	0	<5.0	3.0	0
	Nickel	mg/kg	2 (Primary): 5 (Interlab)					
	Zinc	mg/kg	5	21.0	33	29.0	30.0	3
Organic	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<10.0	0	<20.0	<10.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)					
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<10.0	0	<20.0	<10.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)					
	TRH C6-C	mg/kg	20 (Primary): 10 (Interlab)	<10.0	0	<20.0	<10.0	0
	TRH C6-C	mg/kg	10 (Primary): 20 (Interlab)					
	TRH >C10	mg/kg	50	<50.0	0	<50.0	<50.0	0
	TRH >C10	mg/kg	50	<50.0	0	<50.0	<50.0	0
	TRH >C16	mg/kg	100	<100.0	0	<100.0	<100.0	0
	TRH >C34	mg/kg	100	<100.0	0	<100.0	<100.0	0
	TRH >C10	mg/kg	50 (Primary): 100 (Interlab)					
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)	<50.0	0	<100.0	<50.0	0
PAH	Acenaphth	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Acenaphth	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Anthracene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Fluoranth	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benz(a)ant	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	0.6	0	0.6	0.6	0
	Benzo(a)py	mg/kg	0.5	1.2	0	1.2	1.2	0
	Benzo(b&j)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benzo(g,h)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Benzo(k)flu	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Dibenz(a,h)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Indeno(1,2)	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Phenanthre	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
	Pyrene	mg/kg	0.5	<0.5	0	<0.5	<0.5	0
PCBs	Arochlor 1	mg/kg	0.1			<0.1		

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	ES2201849	876201	ES2212037
Field ID	Gladesville 8B RPD	CH-3	CH-3B RPD
Sampled Date/Time	12/01/2022	31/03/2022	31/03/2022

	Arochlor 12	mg/kg	0.1			<0.1		
	Arochlor 12	mg/kg	0.1			<0.1		
	Arochlor 12	mg/kg	0.1			<0.1		
	Arochlor 12	mg/kg	0.1			<0.1		
	Arochlor 12	mg/kg	0.1			<0.1		
	Arochlor 12	mg/kg	0.1			<0.1		
	PCBs (Sum	mg/kg	0.1	<0.1	0	<0.1	<0.1	0
	PCBs (Sum	mg/kg	0.1 (Primary): 0.5 (Interl					
Pesticides	4,4-DDE	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Azinophos	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Azinophos	mg/kg	0.05 (Primary): 0.2 (Interl					
	b-BHC	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Bromophos	mg/kg	0.05					
	Carbophen	mg/kg	0.05					
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Interl	<0.05	0	<0.1	<0.05	0
	Chlordane	mg/kg	0.05 (Primary): 0.1 (Interl					
	Chlordane	mg/kg	0.05					
	Chlordane	mg/kg	0.05					
	Chlorfenvin	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Chlorfenvin	mg/kg	0.05 (Primary): 0.2 (Interl					
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Interl					
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Interl					
	Coumaphos	mg/kg	2			<2.0		
	d-BHC	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	DDD	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	DDT	mg/kg	0.2 (Primary): 0.05 (Interl					
	DDT	mg/kg	0.05 (Primary): 0.2 (Interl	<0.2	0	<0.05	<0.2	0
	DDT+DDE	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Demeton-S	mg/kg	0.05					
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Diazinon	mg/kg	0.05 (Primary): 0.2 (Interl					
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Dichlorvos	mg/kg	0.05 (Primary): 0.2 (Interl					
	Dieldrin	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Dimethoate	mg/kg	0.2 (Primary): 0.05 (Interl	<0.05	0	<0.2	<0.05	0
	Dimethoate	mg/kg	0.05 (Primary): 0.2 (Interl					
	Disulfoton	mg/kg	0.2			<0.2		
	Endosulfar	mg/kg	0.05					
	Endosulfar	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Endrin	mg/kg	0.05	<0.05	0	<0.05	<0.05	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	ES2201849	876201	ES2212037
Field ID	Gladesville 8B	CH-3	CH-3B
Sampled Date/Time	12/01/2022	31/03/2022	31/03/2022
	RPD		RPD

	Endrin alde	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Endrin ket	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Ethion	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.05	0	<0.2	<0.05	0
	Ethion	mg/kg	0.05 (Primary): 0.2 (Interlab)					
	Ethoprop	mg/kg	0.2			<0.2		
	Fenamiphos	mg/kg	0.05					
	Fenitrothion	mg/kg	0.2			<0.2		
	Fenthion	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.05	0	<0.2	<0.05	0
	Fenthion	mg/kg	0.05 (Primary): 0.2 (Interlab)					
	g-BHC (Lin)	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Hexachlor	mg/kg	0.05	<0.05	0	<0.05	<0.05	0
	Malathion	mg/kg	0.2 (Primary): 0.05 (Interlab)	<0.05	0	<0.2	<0.05	0
	Malathion	mg/kg	0.05 (Primary): 0.2 (Interlab)					
	Methoxych	mg/kg	0.2					
	Methoxych	mg/kg	0.05 (Primary): 0.2 (Interlab)	<0.2	0	<0.05	<0.2	0
	Methyl para	mg/kg	0.2	<0.2	0	<0.2	<0.2	0
	Monocroto	mg/kg	2 (Primary): 0.2 (Interlab)	<0.2	0	<2.0	<0.2	0
	Monocroto	mg/kg	0.2 (Primary): 2 (Interlab)					
	Parathion	mg/kg	0.2	<0.2	0	<0.2	<0.2	0
	Phorate	mg/kg	0.2			<0.2		
	Pirimphos-	mg/kg	0.05					
	Prothiofos	mg/kg	0.05					
	Ronnel	mg/kg	0.2			<0.2		
	Bolstar (Su	mg/kg	0.2			<0.2		
	Merphos	mg/kg	0.2			<0.2		
TPH	TRH C15-C	mg/kg	50 (Primary): 100 (Interlab)	<100.0	0	<50.0	<100.0	0
	TRH C15-C	mg/kg	100 (Primary): 50 (Interlab)					
	TRH C29-C	mg/kg	50 (Primary): 100 (Interlab)	<100.0	0	<50.0	<100.0	0
	TRH C29-C	mg/kg	100 (Primary): 50 (Interlab)					
	TRH C10-C	mg/kg	50 (Primary): 20 (Interlab)					
	TRH C10-C	mg/kg	20 (Primary): 50 (Interlab)	<50.0	0	<20.0	<50.0	0
	TRH C10-C	mg/kg	50	<50.0	18	<50.0	<50.0	0

*RPDs have only been considered where a concentration

**High RPDs are in bold (Acceptable RPDs for each EQL

***Interlab Duplicates are matched on a per compound basis

Field Duplicates (SOIL)
Filter: Lab_Report_Nui

Lab Report Number	ES2030511	741102	
Field ID	LCS-1	LCS-1-B	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

Chem_Gr	ChemNam	Units	EQL			
	Omethoate	mg/kg	2			
	Pirimiphos	mg/kg	0.2			
	Pyrazopho	mg/kg	0.2			
	Terbufos	mg/kg	0.2			
	Tetrachlor	mg/kg	0.2			
Moisture C	Moisture C	%	1	5.6		
Content						
Naphthaler	Naphthaler	mg/kg	1 (Primary): 0.5 (Interlab	<1.0	<0.5	0
	Naphthaler	mg/kg	0.5	<0.5	<0.5	0
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab			
	Naphthaler	mg/kg	0.5 (Primary): 1 (Interlab			
ne						
OCP	Vic EPA IV	mg/kg	0.1			
	Vic EPA IV	mg/kg	0.1			
OCs	Toxaphene	mg/kg	0.5			
OPs	Mevinphos	mg/kg	0.2			
	Naled (Dib	mg/kg	0.2			
	Tokuthion	mg/kg	0.2			
	Trichlorona	mg/kg	0.2			
PAH/Phen	Sum of pol	mg/kg	0.5	<0.5	<0.5	0
ols (SIM)						
pH	pH (aqueo	pH units	0.1			
SVOC	Demeton-C	mg/kg	0.2			
	Demeton-S	mg/kg	0.2			
	EPN	mg/kg	0.2			
	Fensulfothi	mg/kg	0.2			
TRH Volati	Sum of BT	mg/kg	0.2	<0.2		
iles/BTEX						
Volatile	Toluene	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.1	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interl			
	Benzene	mg/kg	0.2 (Primary): 0.1 (Interl	<0.2	<0.1	0
	Benzene	mg/kg	0.1 (Primary): 0.2 (Interl			
	Ethylbenze	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.1	0
	Ethylbenze	mg/kg	0.1 (Primary): 0.5 (Interl			
	m&p-Xylen	mg/kg	0.5 (Primary): 0.2 (Interl	<0.5	<0.2	0
	m&p-Xylen	mg/kg	0.2 (Primary): 0.5 (Interl			
	o-Xylene	mg/kg	0.5 (Primary): 0.1 (Interl	<0.5	<0.1	0
	o-Xylene	mg/kg	0.1 (Primary): 0.5 (Interl			
	Xylenes - T	mg/kg	0.5 (Primary): 0.3 (Interl	<0.5	<0.3	0
	Xylenes - T	mg/kg	0.3 (Primary): 0.5 (Interl			

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)
Filter: Lab_Report_Nu

Lab Report Number	ES2030511	741102	
Field ID	LCS-1	LCS-1-B	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

Inorganics	Moisture C	%	1			
Metals	Arsenic	mg/kg	5 (Primary): 2 (Interlab)	<5.0	3.1	0
	Arsenic	mg/kg	2 (Primary): 5 (Interlab)			
	Cadmium	mg/kg	1 (Primary): 0.4 (Interlab)	<1.0	<0.4	0
	Cadmium	mg/kg	0.4 (Primary): 1 (Interlab)			
	Chromium	mg/kg	5 (Primary): 2 (Interlab)			
	Chromium	mg/kg	2 (Primary): 5 (Interlab)	8.0	7.9	1
	Copper	mg/kg	5	5.0	<5.0	0
	Lead	mg/kg	5	11.0	12.0	9
	Mercury	mg/kg	0.1	<0.1	<0.1	0
	Nickel	mg/kg	5 (Primary): 2 (Interlab)			
	Nickel	mg/kg	2 (Primary): 5 (Interlab)	<2.0	<5.0	0
	Zinc	mg/kg	5	14.0	12.0	15
Organic	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C10	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<20.0	0
	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C10	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<20.0	0
	TRH C6-C10	mg/kg	20 (Primary): 10 (Interlab)			
	TRH C6-C10	mg/kg	10 (Primary): 20 (Interlab)	<10.0	<20.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C10	mg/kg	50	<50.0	<50.0	0
	TRH >C16	mg/kg	100	<100.0	<100.0	0
	TRH >C34	mg/kg	100	<100.0	<100.0	0
	TRH >C10	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<100.0	0
	TRH >C10	mg/kg	100 (Primary): 50 (Interlab)			
PAH	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Acenaphth	mg/kg	0.5	<0.5	<0.5	0
	Anthracene	mg/kg	0.5	<0.5	<0.5	0
	Fluoranthene	mg/kg	0.5	<0.5	<0.5	0
	Fluorene	mg/kg	0.5	<0.5	<0.5	0
	Benz(a)ant	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	<0.5	<0.5	0
	Benzo(a)py	mg/kg	0.5	0.6	0.6	0
	Benzo(a)py	mg/kg	0.5	1.2	1.2	0
	Benzo(b&j)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(g,h,i)	mg/kg	0.5	<0.5	<0.5	0
	Benzo(k)flu	mg/kg	0.5	<0.5	<0.5	0
	Chrysene	mg/kg	0.5	<0.5	<0.5	0
	Dibenz(a,h)	mg/kg	0.5	<0.5	<0.5	0
	Indeno(1,2,3-cd)	mg/kg	0.5	<0.5	<0.5	0
	Phenanthrene	mg/kg	0.5	<0.5	<0.5	0
	Pyrene	mg/kg	0.5	<0.5	<0.5	0
PCBs	Arochlor 1248	mg/kg	0.1			

Field Duplicates (SOIL)

Filter: Lab_Report_Nui

Lab Report Number	ES2030511	741102	
Field ID	LCS-1	LCS-1-B	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	Arochlor 12	mg/kg	0.1			
	PCBs (Sun	mg/kg	0.1			
	PCBs (Sun	mg/kg	0.1 (Primary): 0.5 (Interl	<0.1	<0.5	0
Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	<0.05	<0.05	0
	Aldrin + Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Azinophos	mg/kg	0.2 (Primary): 0.05 (Inter			
	Azinophos	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	b-BHC	mg/kg	0.05	<0.05	<0.05	0
	Bromophos	mg/kg	0.05	<0.05		
	Carbophen	mg/kg	0.05	<0.05		
	Chlordane	mg/kg	0.1 (Primary): 0.05 (Inter			
	Chlordane	mg/kg	0.05 (Primary): 0.1 (Inter	<0.05	<0.1	0
	Chlordane	mg/kg	0.05	<0.05		
	Chlordane	mg/kg	0.05	<0.05		
	Chlorfenvin	mg/kg	0.2 (Primary): 0.05 (Inter			
	Chlorfenvin	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter			
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Chlorpyrifos	mg/kg	0.2 (Primary): 0.05 (Inter			
	Chlorpyrifos	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Coumaphos	mg/kg	2			
	d-BHC	mg/kg	0.05	<0.05	<0.05	0
	DDD	mg/kg	0.05	<0.05	<0.05	0
	DDT	mg/kg	0.2 (Primary): 0.05 (Inter	<0.2	<0.05	0
	DDT	mg/kg	0.05 (Primary): 0.2 (Inter			
	DDT+DDE	mg/kg	0.05	<0.05	<0.05	0
	Demeton-S	mg/kg	0.05	<0.05		
	Diazinon	mg/kg	0.2 (Primary): 0.05 (Inter			
	Diazinon	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Dichlorvos	mg/kg	0.2 (Primary): 0.05 (Inter			
	Dichlorvos	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0
	Dimethoate	mg/kg	0.2 (Primary): 0.05 (Inter			
	Dimethoate	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Disulfoton	mg/kg	0.2			
	Endosulfar	mg/kg	0.05	<0.05		
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endosulfar	mg/kg	0.05	<0.05	<0.05	0
	Endrin	mg/kg	0.05	<0.05	<0.05	0

Filter: Lab_Report_Number in('835801','856048','876201','ES2030511')

Field Duplicates (SOIL)

Filter: Lab_Report_Nu

Lab Report Number	ES2030511	741102	
Field ID	LCS-1	LCS-1-B	RPD
Sampled Date/Time	27/08/2020 15:00	27/08/2020 15:00	

	Endrin alde	mg/kg	0.05	<0.05	<0.05	0
	Endrin ket	mg/kg	0.05	<0.05	<0.05	0
	Ethion	mg/kg	0.2 (Primary): 0.05 (Inter			
	Ethion	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Ethoprop	mg/kg	0.2			
	Fenamiph	mg/kg	0.05	<0.05		
	Fenitrothi	mg/kg	0.2			
	Fenthion	mg/kg	0.2 (Primary): 0.05 (Inter			
	Fenthion	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	g-BHC (Lin	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0
	Hexachlor	mg/kg	0.05	<0.05	<0.05	0
	Malathion	mg/kg	0.2 (Primary): 0.05 (Inter			
	Malathion	mg/kg	0.05 (Primary): 0.2 (Inter	<0.05	<0.2	0
	Methoxych	mg/kg	0.2	<0.2	<0.2	0
	Methoxych	mg/kg	0.05 (Primary): 0.2 (Inter			
	Methyl para	mg/kg	0.2	<0.2	<0.2	0
	Monocroto	mg/kg	2 (Primary): 0.2 (Interlab			
	Monocroto	mg/kg	0.2 (Primary): 2 (Interlab	<0.2	<2.0	0
	Parathion	mg/kg	0.2	<0.2	<0.2	0
	Phorate	mg/kg	0.2			
	Pirimphos-	mg/kg	0.05	<0.05		
	Prothiofos	mg/kg	0.05	<0.05		
	Ronnel	mg/kg	0.2			
	Bolstar (Su	mg/kg	0.2			
	Merphos	mg/kg	0.2			
TPH	TRH C15-C	mg/kg	50 (Primary): 100 (Interla			
	TRH C15-C	mg/kg	100 (Primary): 50 (Interla	<100.0	<50.0	0
	TRH C29-C	mg/kg	50 (Primary): 100 (Interla			
	TRH C29-C	mg/kg	100 (Primary): 50 (Interla	<100.0	<50.0	0
	TRH C10-C	mg/kg	50 (Primary): 20 (Interla	<50.0	<20.0	0
	TRH C10-C	mg/kg	20 (Primary): 50 (Interla			
	TRH C10-C	mg/kg	50	<50.0	<50.0	0

*RPDs have only been considered where a concentration

**High RPDs are in bold (Acceptable RPDs for each EQL

***Interlab Duplicates are matched on a per compound ba

**Site Audit Statement
(Attached)**



NSW Site Auditor Scheme

Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act 1997* on 12 October 2017.

For information about completing this form, go to Part IV.

Part I: Site audit identification

Site audit statement no. 0301-2308

This site audit is a:

- ☐ statutory audit
- ☒ **non-statutory audit**

within the meaning of the *Contaminated Land Management Act 1997*.

Site auditor details

(As accredited under the *Contaminated Land Management Act 1997*)

Name	James Davis		
Company	Enviroview Pty Ltd		
Address	PO Box 327		
	GLADESVILLE NSW	Postcode	2110
Phone	0467 375 481		
Email	james.davis@enviroview.com.au		

Site details

Address	Proposed Lot 301 in Lot 207 of DP 1265922 (Stage 3A)		
	3 Johnston Crescent		
	HORSLEY PARK, NSW	Postcode	2175

Property description

(Attach a separate list if several properties are included in the site audit.)

Part Lot 207 in DP 1265922 (See attached plan)

Local government area	Fairfield City Council
Area of site (include units, e.g. hectares)	9.45 Ha
Current zoning	IN1 –General Industrial under Fairfield Local Environmental Plan Amendment (Western Sydney Employment Area) 2009

Regulation and notification

To the best of my knowledge:

- ☐ **the site is** the subject of a declaration, order, agreement, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*, as follows: (provide the no. if applicable)
- ☐ Declaration no. _____
- ☐ Order no. _____
- ☐ Proposal no. _____
- ☐ Notice no. _____
- ☒ **the site is not** the subject of a declaration, order, proposal or notice under the *Contaminated Land Management Act 1997* or the *Environmentally Hazardous Chemicals Act 1985*.

To the best of my knowledge:

- ☐ the site **has** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*
- ☒ the site **has not** been notified to the EPA under section 60 of the *Contaminated Land Management Act 1997*.

Site audit commissioned by

Name	Wayne Pasalich		
Company	CSR Building Products Limited		
Address	Triniti 3, 39 Delhi Road,		
	NORTH RYDE, NSW	Postcode	2113
Phone	02 9964 1784		
Email	WPASALICH@csr.com.au		

Contact details for contact person (if different from above)

Name

Phone

Email

Nature of statutory requirements (not applicable for non-statutory audits)

- ☐ Requirements under the *Contaminated Land Management Act 1997*
(e.g. management order; please specify, including date of issue)

- ☐ Requirements imposed by an environmental planning instrument
(please specify, including date of issue)

- ☐ Development consent requirements under the *Environmental Planning and Assessment Act 1979* (please specify consent authority and date of issue)

- ☐ Requirements under other legislation (please specify, including date of issue)

Purpose of site audit

- ☒ **A1** To determine land use suitability

Intended uses of the land: Commercial/industrial

OR

- ☐ **A2** To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land:

OR

(Tick all that apply)

- ☐ **B1** To determine the nature and extent of contamination

- ☐ **B2** To determine the appropriateness of:

☐ an investigation plan

☐ a remediation plan

☐ a management plan

- ☐ **B3** To determine the appropriateness of a **site testing plan** to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*

- ☐ **B4** To determine the compliance with an approved:

☐ **voluntary management proposal** or

☐ **management order** under the *Contaminated Land Management Act 1997*

- ☐ **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land:

Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

DLA Environmental, ERM Australia

Titles of reports reviewed:

DLA Environmental Services (June 2013). *Phase 1 Preliminary Environmental Site Assessment, Lot 1 in DP 106143 CSR Building Products 327-335 Burley Road, Horsley Park*. Reference DLH1121_H0000033, dated June 2013.

DLA Environmental Services (September 2013). *Phase 2 Detailed Environmental Site Assessment, Lot 1 in DP 106143 CSR Building Products 327-335 Burley Road, Horsley Park*. Reference DLH1121_H0068, dated September 2013.

Site Audit Statement

ERM (September 2019) *Limited Detailed Site Investigation, Horsley Park – Stage 3 Development Area*, Reference: 0449086_S009904, dated 13 September 2019.

ERM (November 2020). *Remediation Action Plan, 327-335 Burley Road, Horsley Park NSW 2175*. Reference S010173_R03.1, dated 19 November 2020. (ERM, November 2020)

ERM (August 2021). *Landfill Gas Risk Assessment, Horsley Logistic Park, 327-335 Burley Rd, Horsley Park NSW 2175*. Reference S011005_0565895, dated 10 August 2021.

ERM (April 2023). Validation Report, Stage 3A, 3 Johnston Crescent, Horsley Park NSW 2175. Reference 0449086_S011351, dated 28 April 2023.

Site audit report details

Title	Site Audit Report
	Proposed Lot 301 in Lot 207 of DP 1265922 (Stage 3A)
	3 Johnston Crescent
	Horsley Park NSW
Report no.	600105_0301-2308
Date	2 August 2023

Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section.
(Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
 - (B1) the nature and extent of contamination, and/or
 - (B2) the appropriateness of an investigation, remediation or management plan¹, and/or
 - (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
 - (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
 - (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

¹ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Section A1

I certify that, in my opinion:

The **site is suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
 - ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
 - ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
 - ☐ ~~Day care centre, preschool, primary school~~
 - ☐ ~~Residential with minimal opportunity for soil access, including units~~
 - ☐ ~~Secondary school~~
 - ☐ ~~Park, recreational open space, playing field~~
 - ☒ **Commercial/industrial**
 - ☐ ~~Other (please specify):~~
-

OR

- ☐ ~~I certify that, in my opinion, the **site is not suitable** for any use due to the risk of harm from contamination.~~

Overall comments:

Section A2

~~I certify that, in my opinion:~~

Subject to compliance with the ~~attached~~ environmental management plan² (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- ☐ ~~Residential, including substantial vegetable garden and poultry~~
 - ☐ ~~Residential, including substantial vegetable garden, excluding poultry~~
 - ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
 - ☐ ~~Day care centre, preschool, primary school~~
 - ☐ ~~Residential with minimal opportunity for soil access, including units~~
 - ☐ ~~Secondary school~~
 - ☐ ~~Park, recreational open space, playing field~~
 - ☐ ~~Commercial/industrial~~
 - ☐ ~~Other (please specify):~~
-

~~EMP details~~

Title:

Author:

Date: _____ No. of pages (incl. cover)

~~EMP summary~~

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

- ☐ ~~requires operation and/or maintenance of **active** control systems³~~
- ☐ ~~requires maintenance of passive control systems only³.~~

² Refer to Part IV for an explanation of an environmental management plan.

³ Refer to Part IV for definitions of active and passive control systems.

Purpose of the EMP:

Description of the nature of the residual contamination:

Summary of the actions required by the EMP:

How the EMP can reasonably be made to be legally enforceable:

How there will be appropriate public notification:

Overall comments:

Section B

Purpose of the plan⁴ which is the subject of this audit:

I certify that, in my opinion:

(B1)

- ☐ ~~The nature and extent of the contamination **has** been appropriately determined~~
☐ ~~The nature and extent of the contamination **has not** been appropriately determined~~

AND/OR (B2)

- ☐ ~~The investigation, remediation or management plan **is** appropriate for the purpose stated above~~
☐ ~~The investigation, remediation or management plan **is not** appropriate for the purpose stated above~~

AND/OR (B3)

- ☐ ~~The site testing plan:~~
☐ ~~**is** appropriate to determine~~
☐ ~~**is not** appropriate to determine~~
~~if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*~~

AND/OR (B4)

- ☐ ~~The terms of the approved voluntary management proposal* or management order** (strike out as appropriate):~~
☐ ~~**have** been complied with~~
☐ ~~**have not** been complied with.~~

~~*voluntary management proposal no.~~

~~**management order no.~~

AND/OR (B5)

- ☐ ~~The site **can be made suitable** for the following uses:~~
~~(Tick all appropriate uses and strike out those not applicable.)~~
☐ ~~Residential, including substantial vegetable garden and poultry~~
☐ ~~Residential, including substantial vegetable garden, excluding poultry~~

⁴ For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

Site Audit Statement

- ☐ ~~Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry~~
- ☐ ~~Day care centre, preschool, primary school~~
- ☐ ~~Residential with minimal opportunity for soil access, including units~~
- ☐ ~~Secondary school~~
- ☐ ~~Park, recreational open space, playing field~~
- ☐ ~~Commercial/industrial~~
- ☐ ~~Other (please specify):~~

~~IF the site is remediated/managed* in accordance with the following plan (attached):~~

~~*Strike out as appropriate~~

Plan title

Plan author

Plan date

No. of pages

~~SUBJECT to compliance with the following condition(s):~~

Overall comments:

Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997*.

Accreditation no. 0301

I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997*, and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act 1997* for wilfully making false or misleading statements.



Signed

Date 2 August 2023

Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

How to complete this form

Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act 1997* (CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of the *Environmental Planning and Assessment Act 1979*.

Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

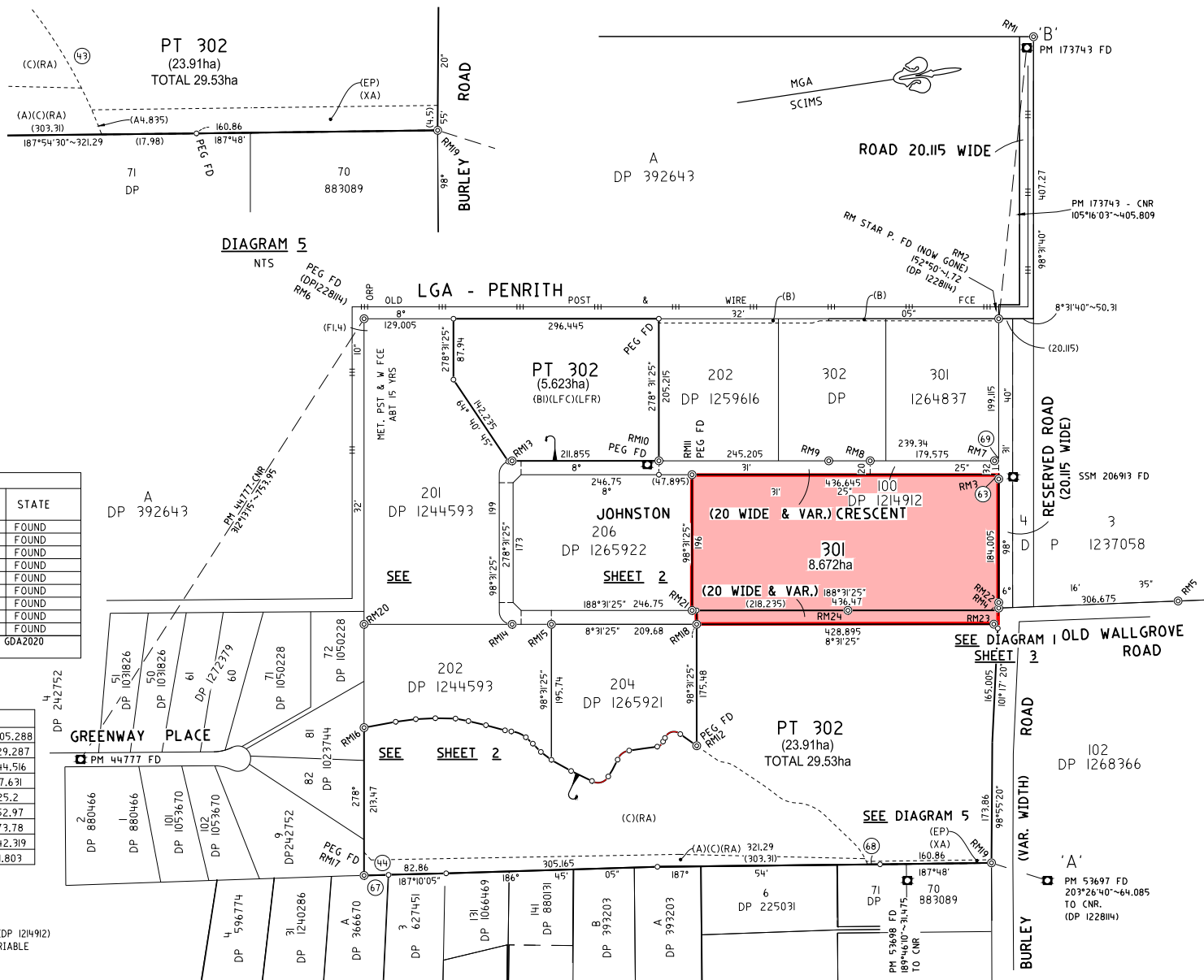
- the **NSW Environment Protection Authority**:
nswauditors@epa.nsw.gov.au or as specified by the EPA
- AND
- the **local council** for the land which is the subject of the audit.

SCHEDULE OF REFERENCE MARKS

RM No	TYPE	BEARING	DISTANCE	ORIGIN
1	PM 173743 FD	30°44'	5.04	DP 1173181
2	DH&W FD	201°13'	17.39	DP 1214912
3	SSM 206913 FD	113°15'30"	6.735	DP 1214912
4	STAR P. FD	267°07'	10.975	DP 1228114
5	DH&W FD	274°18'	3.95	DP 1173181
6	STAR P. FD	196°43'15"	0.55	DP 1214912
7	DH&W FD	329°20'30"	5.355	DP 1214912
8	DH&W FD	302°58'45"	18.22	DP 1214912
9	DH&W FD	309°44'35"	3.925	DP 1214912
10	DH&W FD	284°30'50"	16.685	DP 1214912
11	DH&W FD	294°59'55"	3.53	DP 1214912
12	DH&W FD	282°00'	16.625	DP 1214912
13	DH&W FD	244°09'25"	4.085	DP 1214912
14	DH&W FD	270°51'50"	16.72	DP 1214912
15	DH&W FD	113°16'20"	3.465	DP 1214912
16	STAR P. FD	111°59'45"	3.355	DP 1256330
17	SSM 212098 FD	333°41'05"	9.495	DP 1244593
18	SSM 212099 FD	43°48'20"	9.305	DP 1244593
19	DH&W FD/GONE	97°16'35"	16.585	DP 1244593
20	DH&W FD/GONE	302°58'45"	18.22	DP 1244593
21	DH&W FD	98°31'05"	3.385	DP 1265922
22	DH&W FD	177°46'25"	18.315	DP 1265922
23	STAR P. FD	255°06'25"	4.75	DP 1256330
24	RM GIP FD	298°32'35"	18.755	DP 1265921
25	STP FD (DIST)	15°03'10"	14.345	DP 1265922
26	DH&W FD	21°59'40"	14.27	DP 1265922
27	DH&W FD	165°10'	3.325	DP 883089
28	STAR P. FD	187°05'30"	0.865	DP 1244593
29	DH&W	00°00'00"	100	PLACED
30	DH&W	00°00'00"	100	PLACED
31	DH&W	00°00'00"	100	PLACED
32	DH&W	00°00'00"	100	PLACED
33	DH&W	00°00'00"	100	PLACED
34	DH&W	00°00'00"	100	PLACED
35	DH&W	00°00'00"	100	PLACED

DIAGRAM 5

NTS



COORDINATE SCHEDULE

MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
PM 44777	298 741.551	6 253 465.76	B	N/A	SCIMS	FOUND
PM 44778	299 006.069	6 254 085.512	B	N/A	SCIMS	FOUND
PM 53697	299 120.227	6 254 810.2	B	0.02	SCIMS	FOUND
PM 53698	299 078.184	6 254 623.036	B	N/A	SCIMS	FOUND
PM 173743	297 927.616	6 254 985.256	C	N/A	SCIMS	FOUND
SSM 206913	298 541.531	6 254 846.775	B	0.02	SCIMS	FOUND
SSM 206921	298 444.93	6 254 310.834	B	0.02	SCIMS	FOUND
SSM 212098	298 422	6 254 145	U	N/A	SCIMS	FOUND
SSM 212099	298 645	6 254 112	U	N/A	SCIMS	FOUND

DATE OF SCIMS COORDINATES: 24/02/2023 MGA ZONE: 56 MGA DATUM: GDA2020
COMBINED SCALE FACTOR: 1.000082

DATUM LINE & SSM CONNECTIONS

FROM	TO	MGA GROUND	SURVEY
A' PM 53697	B' PM 173743	278°21'02" ~ 1205.291	278°21'02" ~ 1205.288
PM 173743	SSM 206913	~	102°42'45" ~ 629.287
SSM 206913	SSM 206921	~	190°12'58" ~ 544.516
SSM 206921	SSM 212098	~	187°49'53" ~ 167.631
SSM 212098	SSM 212099	~	98°28'21" ~ 225.2
SSM 212099	PM 44777	~	171°28'59" ~ 652.97
PM 44777	PM 44778	23°06'48" ~ 673.786	23°06'56" ~ 673.78
PM 44778	PM 53698	7°38'29" ~ 542.295	7°38'30" ~ 542.319
PM 53698	PM 53697	12°39'30" ~ 191.81	12°38'41" ~ 191.803

- (A) EASEMENT FOR TRANSMISSION LINE VARIABLE WIDTH (VIDE J930048)
 (B) EASEMENT FOR DRAINAGE OF WATER 3 WIDE AND VARIABLE WIDTH (DP 1214912)
 (B1) BENEFITED BY EASEMENT FOR DRAINAGE OF WATER 3 WIDE AND VARIABLE WIDTH DENOTED (B) IN THE PLAN (DP 1214912)
 (C) POSITIVE COVENANT (DP 1256330)
 (EP) RIGHT OF ACCESS 4.5 WIDE (DP 1272363)
 (LFC) POSITIVE COVENANT (DP 1244593)
 (LFR) RESTRICTION ON USE OF LAND (DP 1244593)
 (RA) BENEFITED BY RIGHT OF ACCESS 4.5 WIDE (XA) (DP 1272363)
 (XA) RIGHT OF ACCESS 4.5 WIDE (DP 1272363)

SEE SHEET 3 FOR SCHEDULE OF SHORT & CURVED DIMENSIONS

\\sydnad01.brown.com.local\projects\X13044 - CSR Horsley Park\Survey\DP AND S88B FOR REGISTRATION\Stage 3A Subdivision\DP & 88B REGISTRATION\DP Drawing\DWG\X13044-STG3A DP 1244594.dwg Saved: 13.08.2023, By: peng.wu

SURVEYOR

Name: KIM FRANCIS MURPHY
 Date: 17/03/2023
 Reference: X13044-STG3A
 LPI File Ref:

PLAN OF SUBDIVISION OF LOT 207 IN DP 1265922

LGA: FAIRFIELD

Locality: HORSLEY PARK

Reduction Ratio: 1:4000

Lengths are in metres.

REGISTERED

DP 1244594

Site Audit Site - Site Audit Statement 0301-2308

Proposed Lot 301 in Lot 207 of DP 126592 (Stage 3A)

3 Johnston Crescent

HORSLEY PARK, NSW

Date: 2 August 2023

Enviroview Pty Ltd

Proj: 600105_0301-2308

Figure 1

Site Audit Site Boundary